## Manhattan College

## 2023-2024 Undergraduate Catalog

## True and correct in content and policy



Carlos Tonche, Jr.
Registrar

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## Undergraduate Studies

Welcome to our online catalog, the College's primary, comprehensive single source of departmental and college-wide information related to academic programs. Courses, degree programs, and policies that govern progress toward completion of a degree are described in this catalog. Students are responsible for knowing and understanding the contents of the catalog year they are following. The catalog provides a broad range of course information in a consistent online format and is searchable and user-friendly.
While every effort is made to ensure that the course information, applicable policies, and other materials presented in the Catalog are accurate and correct, the College reserves the right to make changes as circumstances require.

## About Manhattan College

## The Mission of Manhattan College

Manhattan College is an independent Catholic institution of higher learning that embraces qualified men and women of all faiths, cultures, and traditions. The mission of Manhattan College is to provide a contemporary, person-centered educational experience that prepares graduates for lives of personal development, professional success, civic engagement, and service to their fellow human beings. The College pursues this mission through programs that integrate a broad liberal education with a concentration in specific disciplines in the arts and sciences or with professional preparation in business, education, and engineering.

Established in 1853 by the Institute of the Brothers of the Christian Schools, the College continues to draw its inspiration from the heritage of John Baptist de La Salle, the innovator of modern pedagogy and patron saint of teachers. Among the hallmarks of this Lasallian heritage are excellence in teaching, respect for human dignity, reflection on faith and its relation to reason, an emphasis on ethical conduct, and commitment to social justice.

## Historical Note

In May 1853, five Christian Brothers moved their small Canal Street school to what was then known as Manhattanville, a section of New York City at 131st Street and Broadway. The Brothers brought with them more than their furniture and their students. They were the bearers of an educational tradition that began in 17th century France with Saint John Baptist de La Salle, the founder of their order and today acknowledged by the Catholic Church as the Patron Saint of Teachers. De La Salle formed a community of religious Brothers who would devote themselves exclusively to their work as teachers. Their students would be the children of the artisans and the underprivileged; their mission would be the intellectual, spiritual, moral, economic and social flourishing of those students. Responding to the needs of his time, De La Salle created a new type of school system and elevated the work of teaching school - treating it as a profession and a vocation. The Brothers were urged to go beyond rote memory to "touch the hearts" of the students. Practical subjects were taught that would lead to a useful role in society; religion was taught to impart a commitment to Christian ethics.

Between 1853 and 1863, the school grew significantly, adding college-level courses in 1859 and first using the name Manhattan College in 1861. It was chartered by the Board of Regents of the State of New York on April 2, 1863. Manhattan College was an unusual institution compared to its peer institutions at the time. From the beginning, the college sought to combine broad learning in the traditional liberal arts with rigorous technical and pre-professional training. As the first college catalog put it, the curriculum of Manhattan College combined the "advantages of a first-class College and Polytechnic Institute," offering courses in both "the liberal and useful arts and sciences."

As the school grew, new quarters were needed. The cornerstone of the "New Manhattan" was laid in 1922 on property bordered by the Hudson River and Van Cortlandt Park, in the Riverdale neighborhood of the Bronx, its present location. The addition of new buildings and student residences has enlarged and enhanced the campus significantly. From this
accessible site, the college is able to offer access to the cultural, educational, business and entertainment opportunities of New York City, as well as a self-contained residential campus environment.

Today Manhattan College identifies itself as a Catholic college in the Lasallian tradition. That tradition has continued to characterize the special educational experience offered by the College over its long history. Its constant focus has been the education of the disadvantaged. From its beginning, the College has paid particular attention to educating first-generation college students, and was an early proponent of access to disadvantaged and minority students, establishing special scholarship funds as early as 1938. That commitment continues today and is evident in Manhattan's diverse student body, many of whom are the first in their families to attend college, and most of whom are supported by significant financial aid.

The College continues to realize the objectives stated in its first catalog by maintaining a full range of programs in the liberal arts and sciences, combined with professional programs in engineering, business, and health professions. The quality of the undergraduate programs is demonstrated in many ways, for example, in the presence on campus of chapters of prestigious honor societies such as Phi Beta Kappa, Sigma Xi, and Tau Beta Pi.

Over the years, Manhattan College has seen many changes, and yet it maintains its deep commitment to its heritage and ideals. What were a predominantly Christian Brothers faculty has become predominantly lay and includes a significant percentage of women. The College became coeducational and accepted its first women undergraduate students in 1973. Currently, women comprise almost half of the full-time undergraduate student body.

With the opening of Horan Hall (1990) and its twin, East Hill (renamed Lee Hall) (2008), the College completed a major transformation from a majority-commuter to a majorityresidential college. Manhattan College now offers a four-year guarantee of resident housing and 80 percent of the student body chooses to live on or near campus. Currently, the College has a student body of approximately 3,500 - 2,900 undergraduates and 500 graduate and continuing education students. The student-faculty ratio is 11:1.

The College continues to follow the founding spirit of John Baptist de La Salle by being responsive to the needs of its place and time. Innovation grounded in tradition has always been a hallmark of Lasallian education, and Manhattan College's new strategic plan, (https://manhattan.edu/about/mission-strategicplan.php) "Renewing the Promise," commits the College to a course of continuous improvement of its programs and facilities in response to emerging needs.

## Recognition and Membership

Manhattan College is chartered and empowered to confer academic degrees by the New York State Education Department.

It is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104-2680, 215-662-5606, http://www.msche.org/. The college is approved by the American Chemical Society for the professional training of chemists and by the New York State Department of Health for Radiation Therapy Technology.

The School of Business is accredited by AACSB International, The Association to Advance Collegiate Schools of Business, the premier accrediting agency for business programs globally.

The undergraduate bachelors of science degree programs in Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering, and the masters of engineering program in Environmental Engineering are accredited by the Engineering Accreditation Commission of ABET Inc. (www.abet.org (http:// www.abet.org/)).

The teacher education programs at Manhattan College are accredited by the Association for Advancing Quality in Educator Preparation (AAQEP) . AAQEP is nationally recognized (https://www.aaqep.org/files/Public\ Statement\ AAQEP.pdf) by the Council for Higher Education Accreditation (CHEA) (https://www.chea.org/) as a programmatic accrediting organization with the following scope: AAQEP accredits programs that prepare professional educators (including teachers, school leaders and administrators, and other education-related personnel) and that lead to recognized degrees at the bachelor's, post-baccalaureate, or master's level and/or to recognized post-degree professional certificates or endorsements, across the United States and its territories and dependencies.

The College is a member of the Association of American Colleges, the American Council on Education, the Institute of International Education, the National Catholic Educational Association, the Association of Urban Universities, the Association of Governing Boards of Universities and Colleges, the American Association of University Women, the American Society for Engineering Education, Middle Atlantic Association of Colleges of Business Administration, Association of Continuing Higher Education, the National Association of College and University Summer Sessions, American Association of Colleges for Teacher Education, the College Entrance Examination Board, the National Commission for Cooperative Education, Association of Catholic Colleges and Universities (ACCU), Commission on Independent Colleges and Universities (CICU), National Association of Independent Colleges \& Universities (NAICU), NY Campus Compact, Lilly Fellows Program, Lower Hudson Valley Consortium of Catholic Colleges \& Universities (LHVCC), FSC DENA, International Association of Lasallian Universities (IALU), Annapolis Group. The College is an associate member of The Hispanic Association of Colleges and Universities (HACU).

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## Honors, Medals \& Prizes Honors Enrichment Program

The Honors Enrichment Program is open to select students who meet published requirements. It is a co-curricular program designed to allow our honors students a broader range of experience consonant with their abilities and interests. The program offers opportunities to meet and grow intellectually with students from all five Schools in a wide variety of Honors Symposia offered each year. It also encourages students to explore the cultural riches of New York City and to take advantage of the many other lectures and presentations offered on campus each semester. Each year's events are organized around a specific theme.

Membership in a wide variety of professional and honorary societies may be earned by students of Manhattan College. These societies include:
Alpha lota Delta, national honor society for students of decision sciences.
Alpha Kappa Delta, international honor society for students of sociology.
Beta Beta Beta, national honor society for students of biology.
Beta Gamma Sigma, national honor society for students of business.
Chi Epsilon, national honor society for students of civil engineering.
Eta Kappa Nu, national honor society for students of electrical engineering.
Gamma Sigma Epsilon, national honor society for students of chemistry and biochemistry.

Kappa Delta Pi, national honor society for students of education.
Lambda Nu , national honor society for students of training programs in radiological technology

Lambda Pi Eta, national honor society for students of communications.
Mu Kappa Tau, national honorary fraternity for students of marketing.
Omega Chi Epsilon, national honor society for students of chemical engineering.
Omicron Delta Epsilon, national honor society for students of economics.
Phi Alpha Theta, international honor society for students of history.
Phi Epsilon Kappa, national honor society for students of kinesiology and related career fields.

Phi Sigma lota, the International Foreign Language Honor Society.
Phi Sigma Tau, national honor society for students of philosophy.
Pi Delta Phi, national honor society for students of French language and literature.
Pi Mu Epsilon, national honor fraternity for students of mathematics.

Pi Sigma Alpha, national honor society for students of Political Science.
Pi Tau Sigma, national honor society for students of mechanical engineering.
Psi Chi, international honor society for students of psychology.
Sigma Delta Pi, national honor society for students of Spanish language and literature.
Sigma lota Rho, national honor society for students of international studies.
Sigma Pi Sigma, national honor society for students of physics.
Sigma Tau Delta, national honor society for students of English language and literature.
Tau Chi Alpha, national honor society for students of environmental engineering.
Tau Sigma Kappa, Manhattan College Honor Society for Computer Science.
Theta Alpha Kappa, national honor society for students of Religious Studies.

## Major National Honor Societies

Manhattan College hosts chapters of the major national honors societies: Phi Beta Kappa in the liberal arts, Sigma Xi in pure and applied scientific research, and Tau Beta Pi in engineering. Manhattan College is one of only four undergraduate institutions to host chapters of all three.

## Scholastic Honors

## Epsilon Sigma Pi Honor Society

Membership in this Society is the highest scholastic honor for which undergraduates of all programs of the College are eligible. Induction into this Society requires a cumulative scholarship index not less than 3.50. The Epsilon Sigma Pi Honor Society is listed on the student's transcript. The following conditions for membership are applicable:

1. Students shall have completed six semesters with no fewer than 90 credits (including transfer credit, transient off-campus course credit, study-abroad credit, AP credit, CLEP credit, articulation or link-program credit).
2. Transfer students have the requisite index for the number of semesters completed at Manhattan College and have the same or higher index at all other colleges or universities attended prior to matriculation at Manhattan College. Students who have transferred from a country with a different grading system will have their transcripts reviewed by the Dean to determine that the requisite index at prior institutions was achieved.
3. Students may have no Ds or Fs on their transcripts from either Manhattan College or from any other colleges or universities attended after matriculation at Manhattan College.
4. Admission for Fall Honors Convocation shall be granted according to the following sliding scale of GPA based on the number of semesters in residence completed at Manhattan College:

| 5. Semesters at Manhattan | GPA |
| :--- | :--- |
| 6 | 3.5 |
| 5 | 3.6 |
| 4 | 3.7 |
| 3 | 3.8 |
| 2 | 3.9 |

6. At Spring Honors, all graduating students with a GPA of 3.5 or better (based on the prior Fall cumulative GPA), who have fulfilled conditions 1-3 listed above shall be inducted into Epsilon Sigma Pi.
7. Under unusual circumstances, a student who does not meet at graduation the above conditions but who seeks nomination to Epsilon Sigma Pi may petition the Provost for special consideration. The Provost shall convene a meeting of the Deans to consider the special application. Their decision shall be final.

Dean's Honor List. Students who complete a minimum of 12 credits in a Fall or Spring semester with a minimum grade point average of 3.40 with no course failures will be placed on the Dean's Honor list.

Graduation With Honor. Honors are awarded based on the following cumulative indexes:

## GPA

3.90-4.00
3.60-3.89
3.40-3.59

## Award

Summa Cum Laude
Magna Cum Laude
Cum Laude

Transfer students from other institutions are eligible for graduation honors if one half of the course credits for their degree are earned at Manhattan College. The required index for graduation honors will be based upon all course credits attempted at Manhattan College.

Students transferring from one program of the College to another are eligible for graduation honors. In calculating the required index for graduation honors, all course credits attempted at Manhattan College will be included.

## Medals and Prizes

The following medals and prizes are awarded annually:
The Donald J. Carty Valedictory Medal. Donated by faculty friends in memory of Dr. Donald J. Carty, Professor of Speech at Manhattan College. Awarded to the valedictorian of each graduating class.

The Medal for Excellence in the Liberal Arts. Founded by Joseph R. Holahan in memory of his brother, Major William V. Holohan of the class of 1925.

The Medal for Art History. This medal is awarded for academic excellence in the study of Art and Architecture.

The Mendelian Medal for Biology. Founded in memory of Dr. James G. Robilotti of the class of 1922.

The Florence and Clarence Batt Medal for Biochemistry. Founded by the Batt family in honor of their parents.

The Medal for Chemistry. Established by the Student Affiliate of the American Chemical Society.

The Medal for Environmental Science. Established by the faculty and students of the Environmental Science Program.

The John V. and Mildred G. Mahony Medal . Founded by their sons, Brian, Kevin, and John, in memory of their parents. This medal is awarded for noteworthy contributions in undergraduate research work in environmental engineering that foretokens fundamental contributions to these fields in the future.

The Medal for Communications. This medal is awarded for academic excellence in Communications studies.

The Brother John McNamara Medal for Computer Science. Founded in 1985 by the faculty and former students of the Department of Mathematics and Computer Science in honor of Brother John McNamara in recognition of his efforts to bring Computer Science into the undergraduate curriculum.

The Brother Birillus Thomas Medal for Mathematics. Founded in his memory by his brother, Rt. Rev. Monsignor Francis J. McKeon, M.A., 1930.

The Francis B. Taylor Medal for Excellence in Science and Mathematics. Founded in honor of Francis B. Taylor '44, faculty member 1947-95.

The Paul Cortissoz Award for English Literature. Founded by family and friends in memory of Dr. Paul Cortissoz '47; faculty member 1949-1989.

The Joseph L. McGoldrick Medal for English and World Literature. Founded in honor of Dr. Joseph L. McGoldrick, '12, by his daughter, Miss Ann M. McGoldrick.

The Harry J. Blair Memorial Medal for Renaissance Literature. Founded in honor of Harry J. Blair, class of 1950; faculty member 1957-1976.

The Brian S. Broderick Medal. Founded in memory of Brian S. Broderick, Class of 1982, by his parents Michael and Mary Broderick, for award to a graduating senior who has conveyed through writing of distinction an understanding and appreciation of literature.

The Brother Andrew O'Connor Medal for French. Founded in 1998 by the members of the Sigma Beta Kappa Fraternity in memory of their Founding Moderator. This medal is awarded for excellence in the study of French and French literature.

The Ryan Medal for Government. Founded by Rev. Francis X. Ryan, C.S.P., '36, Mrs. Joseph F. Ryan, Jr. and Mrs. E. Gerard Ryan in honor of Joseph F. Ryan '26 and Gerard Ryan, '34.

The McGoldrick Medal for History. Founded by Joseph L. McGoldrick, '12, A.M., M.D., in memory of his parents, Lawrence and Mary McGoldrick.

The Dorothy Nealy Sullivan Medal for International Studies. Established in 2006 by former dean of the school of arts, Mary Ann O'Donnell, and her family, in loving memory of her mother, Dorothy Nealy Sullivan. The medal is awarded annually to the top graduating
major in International Studies who has achieved a minimum of 3.5 overall GPA with no grades of D or F .

The Harold E. Hazelton Humanities Medal. Founded in honor of Harold E. Hazelton, class of 1951; faculty member 1957-1985. The medal will be awarded to the graduating senior who has manifested a deep commitment to the humanities and has made a significant contribution to the life of the college in the spirit of Harold E. Hazelton.

The Frederick Mortati Medal for Italian. Founded by Mrs. Frederick Mortati in memory of her husband.

The Pope John XXIII Peace Studies Medal. Founded by Mrs. Robert Beardsley in memory of her parents, Michael and Luisa Pecora. This medal is awarded for excellence in Peace Studies.

The Brother Benignus Medal for Philosophy. Founded by Phi Rho Pi Fraternity in memory of Brother Benignus, F.S.C., teacher and author.

The Brother Gabriel Kane Medal for Physics. Donated by Physics Alumni.
The Broderick Medal for Psychology. Founded by Most Reverend Edwin B. Broderick, D.D., Ph.D., and John M. Broderick of the class of 1935 in honor of their father, Patrick J. Broderick.

The Edward J. Morris, M.D. Medal for Religious Studies. Founded by the estate of Loretta R. Morris.

The Sigma Xi Medal for Research in Science. Donated by the Manhattan College Sigma Xi Chapter.

The John T. Miller, Jr. Medal for Sociology. Founded by Mrs. John T. Miller, Jr., in memory of her husband, class of 1972.

The Cristina R. Toosie Medal for Spanish Studies. Founded by Mrs. Thomas A. Toosie. This medal is awarded for excellence in the study of Spanish language, literature, and culture.

The Draddy Medal for General Excellence in Engineering. Founded in memory of Daniel Anthony Draddy of the class of 1913 and of Robert Emmet Draddy.

The Brother Amandus Leo Call Engineering Medal. Founded by Robert N. Pucci, class of 1940, and Margaret R. Pucci, M.D. Awarded annually to a graduating senior for distinguished leadership in academic, co-curricular and extra-curricular activities in Engineering. The winner of this medal is the student marshal for Engineering at the May Commencement.

The Prutton Medal for Chemical Engineering. Founded in honor of Dr. Carl F. Prutton by his friends.

The Brother B. Austin Barry Medal for Civil Engineering. Donated in honor of Brother B. Austin Barry, F.S.C. upon his retirement after forty-five years as a member of the faculty of Civil Engineering. This medal is to be awarded to a student for assiduity and competence in Civil Engineering and a spirit that bodes well for a future as a Civil Engineer.

The John F. Hoban Medal for Civil Engineering. Founded by friends in memory of John F. Hoban, class of 1951.

The Brother Azarias Michael Medal for Civil Engineering. Donated by the Civil Engineering Department in memory of Brother Azarias Michael, F.S.C.

The Florence P. Wojtaszek Medal for Computer Engineering. Given in memory of one who worked with the IBM Group, which wrote the first Fortran program.

The Medal for Electrical Engineering. Founded by Thomas R. Finn of the class of 1933 in honor of his mother, Mrs. Mary Finn.

Lawrence Eckenfelder Award for Environmental Engineering. Donated by the friends and family of W. Wesley Eckenfelder in memory of his son to recognize an outstanding undergraduate student in Environmental Engineering.

The Brother Aubert Medal for Mechanical Engineering. Founded by Phi Kappa Theta Fraternity in memory of Brother Aubert of Jesus, F.S.C.

The Prize for Accountancy. The New York State Society of Certified Public Accountants Superior Scholarship in Accounting Award.

The Brother Cornelius Justin Brennan Medal. Founded by Thomas J. Wright, Professor Emeritus of Managerial Sciences. Awarded to a graduating senior from Business in recognition of distinguished performance in academic and in co-curricular and/or extra-curricular activities.

The Edward Dougherty Medal for Business. Donated by Beta Sigma Fraternity in memory of Edward Dougherty of the class of 1928.

The Professor William P. Cain Medal for Computer Information Systems. Founded by the students and alumni of Business in tribute to Brother J. Anthony Flynn who established the program endowed by a gift from James Suarez, Dean of Business.

The Richard J. Carey Medal for Economics. Founded by Richard J. Carey of the class of 1942 .

The Captain Frederick J. Finn Medal for Finance. Founded by Thomas R. Finn of the class of 1933 in memory of his brother, Captain Frederick J. Finn.

The Dean James L. Fitzgerald Medal for Management. Founded by the Faculty of Manhattan College in memory of Dr. James L. Fitzgerald, the first Dean of the School of Business, who served in that capacity from 1926 to 1962.

The Medal for Marketing. Donated by the Sales Executives of New York.
The Thomas H. Lindgren Medal of Excellence in Education. Founded in memory of Thomas H. Lindgren '55.

The Brother A. James Norton Medal for Education. Founded by the late Frank and Catherine Norton in honor of their son, Brother Adelbert James Norton, '40, professor and dean for many years in the School of Teacher Preparation.

The John S. Sich Medal for Physical Education. Founded by former students of Professor John S. Sich in honor of his 35 years of service to Manhattan College.

The Paul R. Simon Medal for Radiological and Health Sciences. Founded by Louis C. Simon in memory of his son, Paul R. Simon, a member of the first class of the Radiological Institute of Manhattan College.
The David C. Broderick Medal for Campus Ministry. Founded by David C. Broderick of the class of 1907 in memory of his son, David C. Broderick, Jr., of the class of 1939. Awarded to a graduating student for distinguished service to the Campus Ministry.
The Signum Fidei Medal for Service and Social Action. Founded by John M. Reilly of the class of 1975 and Lois Harr. Awarded to a graduating student for commitment to service and social action in the Bronx and beyond.

The Joseph J. Gunn Alumni Medal. This medal, awarded annually, is merited by the graduating senior who has been prominently involved in leadership activities over a period of four years at Manhattan College. Established in memory of Joseph J. Gunn, '30, by his family.

## FERPA

## Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) of 1974 is a federal law that was enacted to protect the privacy of students and their educational records. The intent of the legislation is to protect the rights of students and to ensure the privacy and accuracy of "educational information." Educational Information refers to any record maintained by an educational institution, including files, documents, and materials of any type which contain information directly related to students, and which allows a student to be identified.

## What is not considered Educational Information?

- Sole possession records or private notes held by educational personnel which are not accessible or released to other personnel
- Records that are created by the campus law enforcement unit at least in part for a law enforcement purpose
- Records related to individuals who are employed by the college
- Records related to treatment provided by a physician, psychiatrist, psychologist or other recognized professional
- Records of the college which contain only information about an individual obtained after that person is no longer a student at the college (i.e., alumni records)


## Who is protected under FERPA?

Students who are protected under FERPA are those students who are currently enrolled or formerly enrolled, regardless of their age or status in regard to parental dependency. Students who have applied but have not attended the college, and deceased students do not fall under FERPA guidelines.

## Student's rights under FERPA

Eligible students have the right to inspect and review their educational records within 45 days of the day Manhattan College receives a request for access. The eligible student should submit the request to the Registrar and identify the record(s) they wish to inspect. The Registrar will make arrangements for access and will notify the student of the time/ place where the records may be inspected.

An eligible student may also ask the college to amend a record believed to be inaccurate or misleading. If the school decides to not amend the record, the parent or student then has a right to a formal hearing. If, after the hearing, the school still chooses to not amend the record, the eligible student has the right to place a statement with the record commenting on the contested information.

Lastly, a student may formally request that Manhattan College not release Directory Information on their behalf. This request must be submitted to the Registrar. When this request is made, a notation will be flagged in the MC Student Information System and every reasonable effort will be made to safeguard the confidentiality of such information.

When is a student's consent not required?

There are several exceptions to releasing information without a student's written approval.
Some examples are:

- School officials with legitimate educational interests. A school official is a person employed by Manhattan College in an administrative, supervisory, academic, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom Manhattan College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing their tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill their professional responsibility.
- In connection with Financial Aid
- Other schools to which a student is seeking to transfer/enroll
- Parents of a dependent student, as defined by the IRS. The college may release a student's records upon request, but the parent must submit proof of the student's dependency (via most recent federal tax form) prior to receiving the requested information
- Individuals who have obtained court orders or legally issued subpoenas
- Certain government officials in order to carry out lawful functions
- State and local authorities within a juvenile justice system, pursuant to specific State law
- Health and safety emergencies
- Accrediting organizations or organizations conducting studies for MC
- Any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program
- Important Notice: Although FERPA permits a school to disclose information to parents who list a student as a dependent for tax purposes, it does not require a school to do so. Manhattan College will require written student consent on file before disclosing information to parents whose child is a dependent.


## Directory Information

Under FERPA guidelines, a student's record may not be disclosed without written authorization unless the requested information falls under the category of "Directory Information." MC may disclose information on a student without violating FERPA if it has designated that information as Directory Information. The following information has been classified as Directory Information by Manhattan College and may be disclosed without a student's written authorization:

- Student name
- Address
- Electronic mail address
- Telephone number
- Dates of attendance
- Date and place of birth
- Major field of study
- Number of credit hours enrolled
- Grade level
- Degrees, honors, and awards received
- Participation in clubs and activities
- Photograph
- Weight and height of members of athletic teams
- Most recent educational institution

The College uses extreme discretion in releasing any student information to an outside source. While MC is legally entitled to release Directory Information, it generally does not disclose more than deemed necessary. The following items are defined as Personally Identifiable Information and can never be disclosed by the College:

- Social Security Number
- Race
- Gender
- Grades
- GPA
- Country of citizenship
- Religion

You have the right to request that any or all of your directory information not be released by Manhattan College. You may contact the Registrar with a written and signed notice not later than 2 weeks of beginning of the semester to withhold the release of any directory information you specify. This request is in effect until you provide written notice to the contrary.

You have the right to file a complaint with the U.S. Department of Education concerning alleged failures by Manhattan College to comply with the requirements of FERPA at:

Family Policy Compliance Office
U.S. Department of Education

600 Independence Avenue. S.W.
Washington, D.C. 20202-4605

## Non-Discrimination Policy

## Non-Discrimination Policy

Manhattan College is committed to ensuring equal access to its educational programs and employment opportunities without regard to race, color, creed, religion, ethnicity, national origin, sex/gender identity/expression, sexual orientation, marital/partnership status, disability, age, citizenship status, veteran status, predisposing genetic characteristics, caregiver status, credit history, arrest/conviction record, unemployment status, status as a victim of domestic violence, sexual violence, or stalking, or any other legally protected status.

No person shall be denied admission or access to the programs or activities of Manhattan College, nor shall any person be denied employment at the College, solely because of any physical, mental or medical impairment within reasonable accommodations. Inquiries concerning this policy may be referred to Human Resources.

Auxiliary aids and academic adjustments within the guidelines of the ADA/Section 504 are provided without charge by the Specialized Resource Center, Thomas Hall, Room 3.15, Voice: (718) 862-7409, TTY: (718) 862-7885.

The Title IX and Age Act Coordinator is located within the Office of Human Resources, Memorial Hall, Room 305. The ADA/Section 504 Coordinator is located within the Specialized Resource Center, Miguel Hall, 300A.

## Location

The College is situated along Manhattan College Parkway on the heights above Van Cortlandt Park (242nd Street and Broadway) in the Riverdale section of New York City. It is a short distance from the 242nd Street station of the Broadway Seventh Avenue Subway, and can be easily reached from any part of the metropolitan or suburban areas. The exit of the Henry Hudson Parkway (West Side Highway) located at 239th Street several blocks to the west of the College puts the campus within easy reach of New Jersey. The College is also within easy commuting distance from Long Island and Westchester and Rockland counties because of its proximity to the New York State Thruway and the Major Deegan Expressway (exit at Van Cortlandt Park South or West 240th Street).

# Campus Map (http://manhattan.edu/admissions/tour/) Directions to Manhattan College 

## By Car:

From Long Island

## Robert F. Kennedy Bridge (Triborough Bridge) (from South)

Follow signs to Major Deegan Expressway North (I-87), exit at Van Cortlandt Park South, bear right off ramp and bear right onto Broadway. At second traffic light, turn left and then left again onto Manhattan College Parkway. Proceed up hill to main gate on right.

## Whitestone or Throgs Neck Bridge (from East)

To Cross Bronx Expressway (I-95), to Major Deegan Expressway (I-87) North, exit at Van Cortlandt Park South, bear right off ramp and bear right onto Broadway. At second traffic light, turn left and then left again onto Manhattan College Parkway. Proceed up hill to main gate on right.

From Upstate

## Saw Mill River Parkway/Henry Hudson Parkway

Traveling North: Exit at 239th Street. Go to stop sign, cross intersection and bear right onto Manhattan College Parkway. Proceed down hill to main gate on left.

Traveling South: Exit at 246th Street. Turn left at first traffic light, turn right onto Fieldston Road at circle and then turn left onto Manhattan College Parkway. Proceed down hill to main gate on left.

## New York State Thruway (I-87) (from North)

Thruway South (I-87) becomes the Major Deegan Expressway. Exit at Van Cortlandt Park South, turn right off ramp and bear right onto Broadway. At second traffic light, turn left and then left again onto Manhattan College Parkway. Proceed up hill to main gate on right.

## From New Jersey

George Washington Bridge (from West)
New Jersey Turnpike or Route 80 to George Washington Bridge. Follow signs to Henry Hudson Parkway North to 239th Street Exit (no commercial vehicles). At stop sign,
proceed straight across intersection (monument on left), pass traffic light and bear right at fork onto Manhattan College Parkway. Proceed down hill to main gate on left.

## From New York City

## F.D.R. Drive (from South)

F.D.R. Drive to Major Deegan Expressway North (I-87). Exit at Van Cortlandt Park South, bear right off ramp and bear right onto Broadway. At second traffic light, turn left and then left again onto Manhattan College Parkway. Proceed up hill to main gate on right.

## West Side Highway (from South)

West Side Highway to Henry Hudson Parkway North to West 239th Street Exit. At stop sign, proceed straight across intersection (monument on left), pass traffic light and bear right at fork onto Manhattan College Parkway. Proceed down hill to main gate on left.

## From New England

New England Thruway West to Cross Westchester Expressway, then onto New York State Thruway South. Exit at Van Cortlandt Park South, turn right off ramp and bear right onto Broadway. At second traffic light, turn left and then left again onto Manhattan College Parkway. Proceed up hill to main gate on right.

## From Airports

## John F. Kennedy Airport (JFK)

Take Van Wyck Expressway North to Grand Central Parkway to Robert F. Kennedy Bridge (Triborough Bridge), and follow the Long Island directions (above).

## LaGuardia Airport (LGA)

Take Grand Central Parkway to Robert F. Kennedy Bridge (Triborough Bridge), and follow Long Island directions (above).

## Newark Liberty International Airport (EWR)

Take N.J. Turnpike North to George Washington Bridge and follow the New Jersey directions (above).

## Westchester County Airport (HPN)

Go west on Tower Road toward Purchase Street (NY Route 120). Make a left turn onto Purchase Street (NY Route 120). Turn right onto the ramp.Merge onto the Hutchinson River Parkway South. Keep left to take the Cross County Parkway West (Exit 15) toward the George Washington Bridge. Take the Saw Mill River Parkway South exit toward NYC and follow the Saw Mill River Parkway (travelling south) directions above.

## By Public Transportation: <br> MTA Subway

Take the 1 train to Van Cortlandt Park-242 Street (last stop).
Walk up the hill on W. 242nd Street to main gate on right.
For more information on subway schedules, visit mta.info.

## Metro North

Take the Hudson Line to Marble Hill.
Exit the Marble Hill station, cross Broadway and enter the 1 train subway station at 231st Street. Then follow the MTA Subway directions above.
For more information on train schedules, visit mta.info.

## Amtrak Train

Amtrak trains arrive into New York City's Penn Station located in midtown approximately 12 miles from campus. Once arriving at Penn Station, you can take public transportation to campus per the directions above.

## MTA Bus

Bus routes near the College are the 7, 10 and 24, all of which stop at W. 239th Street and Riverdale Avenue.
For more information on city bus schedules, visit mta.info.

## Bus from New Jersey

Take bus to Port Authority Terminal at either W. 42nd Street or W. 178th Street.
Take the 1 train to Van Cortlandt Park-242 Street (last stop).
Walk up the hill on W. 242nd Street to main gate on right.

## Academic Calendar*

2023 Fall Semester

| Month | Date | Day | Event |
| :---: | :---: | :---: | :---: |
| August | 23 | Wednesday | Graduate Education Orientation |
| August | 28 | Monday | Undergraduate and Graduate Full Term Classes Begin |
| August | 28 | Monday | SCPS Term I and Graduate 7 Week Term I start |
| September | 01 | Friday | Undergraduate and Graduate Late Registration \& Add/Drop ends |
| September | 03 | Sunday | SCPS Term I and Graduate 7 Week Term I Add/Drop ends |
| September | 04 | Monday | Labor Day - No Classes |
| October | 08 | Sunday | Last day to withdraw from Graduate 7 Week Term I |
| October | 08 | Sunday | Last day to withdraw from SCPS Term I courses |
| October | 09 | Monday | Fall Break - No Classes (Except SCPS Term I and Graduate Education) |
| October | 10 | Tuesday | Monday Schedule for Undergraduate Classes |
| October | 15 | Sunday | Last day of SCPS Term I courses |
| October | 15 | Sunday | Graduate 7 Week Term I ends |
| October | 16 | Monday | Graduate 7 Week Term II starts |
| October | 16-22 | Mon - Sun | SCPS Term I Finals Week |
| October | 17 | Tuesday | Undergraduate Mid-Term Grades Due |
| October | 22 | Sunday | Graduate 7 Week Term II Add/Drop ends |
| October | 23 | Monday | SCPS Term II Starts |
| October | 29 | Sunday | SCPS Term II Add/Drop ends |
| November | 01 | Wednesday | Web Registration Begins - Spring 2024 |
| November | 17 | Friday | Last day to withdraw from Undergraduate and Graduate Full Term courses |
| November | 17 | Friday | Last day to withdraw from Graduate 7 Week Term II classes |
| November | 22-24 | Wed - Fri | Thanksgiving Holiday - No Classes |
| November | 26 | Sunday | Last day to withdraw from SCPS Term II courses |
| December | 03 | Sunday | Last day of Graduate 7 Week Term II classes |
| December | 07 | Thursday | Last day of Graduate Education classes |
| December | 08 | Friday | Last Day of Undergraduate Classes |


| December | 10 | Sunday | SCPS Term II courses end |
| :--- | :--- | :--- | :--- |
| December | $11-16$ | Mon - Sat | Undergraduate Finals Week |
| December | $11-17$ | Mon - Sun | SCPS Term II Finals Week |

## 2023-2024 Winter Intersession

| Month | Date | Day | Event |
| :--- | :--- | :--- | :--- |
| December | 18 | Monday | Classes Begin |
| December | 20 | Wednesday | Add/Drop deadline for Winter courses |
| December | $21-29$ | Thu - Fri | Christmas Break - College Closed |
| January | 01 | Mon | New Year's Holiday Observed - College <br> Closed |
| January | 14 | Sunday | Last Day of Winter Intersession |

## 2024 Spring Semester

| Month | Date | Day | Event |
| :---: | :---: | :---: | :---: |
| January | 15 | Monday | Martin Luther King Jr. Holiday |
| January | 15 | Monday | SCPS Term I starts |
| January | 16 | Tuesday | Undergraduate and Graduate Full Term Classes Begin |
| January | 16 | Tuesday | Graduate 7 Week Term I starts |
| January | 21 | Sunday | SCPS Term I Add/Drop ends |
| January | 22 | Monday | Undergraduate and Graduate Full Term Late Registration \& Add/Drop Ends |
| January | 22 | Monday | Graduate 7 Week Term I Add/Drop ends |
| February | 05 | Monday | Deadline to submit incomplete work to Faculty for Fall 2023 |
| February | 25 | Sunday | Last day to withdraw from Graduate 7 Week Term II courses |
| February | 25 | Sunday | Last day to withdraw from SCPS Term I courses |
| March | 03 | Sunday | Last day of SCPS Term I courses |
| March | 03 | Sunday | Graduate 7 Week Term I ends |
| March | 04-10 | Mon - Sun | SCPS Term I Finals Week |
| March | 04 | Monday | Graduate 7 Week Term II starts |
| March | 07 | Thursday | Undergraduate Mid - Term Grades Due |
| March | 10 | Sunday | Graduate 7 Week Term II Add/Drop ends |
| March | 11-15 | Mon - Fri | Undergraduate Spring Break |
| March | 11-15 | Mon-Fri | Spring Break - Graduate Education classes will meet |
| March | 11 | Monday | SCPS Term II starts |
| March | 17 | Sunday | SCPS Term II Add/Drop Ends |
| March-April | 28-01 | Thu - Mon | Easter Holiday - No Classes |


| April | 01 | Monday | Easter Monday - Graduate Education <br> classes will meet |
| :--- | :--- | :--- | :--- |
| April | 02 | Tuesday | Web Registration begins for Fall 2024 <br> Monday Schedule for Undergraduate <br> Classes |
| April | 03 | Wednesday | Last day to withdraw from Graduate 7 Week <br> Term II courses |
| April | 07 | Sunday | St. De La Salle Day: The Feast of St. John <br> Baptist de la Salle, Patron of Teachers |
| April | 07 | Sunday | Last day to withdraw from SCPS Term II <br> courses |
| April | 14 | Sunday | Tuesday | | Jasper Day of Wellness |
| :--- |
| April |

## 2024 Summer Sessions

| Month | Date | Day | Event |
| :--- | :--- | :--- | :--- |
| May | 13 | Monday | Summer Session I begins (7 and 14 week <br> sessions) |
| May | 13 | Monday | SCPS Term I starts <br> May 19 | Sunday $\quad$| Add/Drop Deadline for Summer I courses |
| :--- |
| May |


| July | 01 | Monday | SCPS Term II starts |
| :--- | :--- | :--- | :--- |
| July | 04 | Thursday | Independence Day Holiday |
| July | 07 | Sunday | Add/Drop deadline for Summer II |
| July | 07 | Sunday | Add/Drop Deadline for SCPS Session II |
| August | 5 | Monday | Withdrawal Deadline for Summer II and <br> Summer I-14 Week session |
| August | 11 | Sunday | Withdrawal deadline for SCPS Session II |
| August | 18 | Sunday | Summer Session II ends |
| August | 18 | Sunday | SCPS Term II ends |

* Manhattan College reserves the right to make changes as circumstances require.


## Special Sessions

The College provides special sessions in January, May, and during the summer. These special sessions are scheduled primarily for the benefit of students matriculated at Manhattan College but are also open to properly qualified applicants from other accredited institutions. By attending a special session a student may lighten his/her course load for subsequent periods of instruction, make up for deficient credits, or elect extra credits to diversify and enrich his/her academic program. A student may be required to attend a special session if his/her scholastic performance is poor, or if his/her record contains D or F grades in required, prerequisite or sequential courses. The College will normally not accept credits taken at another institution for required, prerequisite or sequential courses.

All special session courses are the same in the length of periods as those described in the Catalog for the normal academic semesters. Final examinations will be given in each course. Members of the regular teaching staff of the College constitute the special session faculty.

Students from other colleges must present written authorization from the Dean or other qualified officials of their college to enroll in a special session.

Special sessions are held in January, May, June, and July. These short but intensive programs permit a full-time or part-time college student the opportunity to gain additional credits for self-growth, and enrichment, and to accelerate the completion of the degree process.

Schedules for special sessions are available in November and April. The enrollment of a minimum number of students will be required for offering any course in the intersession or summer session.

## Academic Policies \& Procedures

All students shall abide by the Manhattan College Community Standards and Student Code of Conduct which can be found at http://manhattan.edu/community-standards-and-student-code-conduct (http://manhattan.edu/community-standards-and-student-codeconduct/) .

For crimes of violence, including, but not limited to sexual violence, or crimes that meet the reporting requirements pursuant to the federal Clery Act, Manhattan College shall make a notation on the transcript of students found responsible through a judicial process pursuant to the Student Code of Conduct. It will be noted that they were "suspended after a finding of responsibility for a Code of Conduct violation" or "expelled after a finding of responsibility for a code of conduct violation." For the student who withdraws from the College while such conduct charges are pending, and declines to complete the disciplinary process, institutions shall make a notation on the transcript of such students that they "withdrew with conduct charges pending." Appeals seeking removal of a transcript notation for suspension can be directed to the Dean of Students and will be heard, provided that such notation will not be removed prior to one year after the conclusion of the suspension. Notations for expulsion will not be removed. If a finding of responsibility is vacated for any reason, any such transcript notation shall be removed.

## Policies

## Graduation

Each student is expected to be familiar with the academic regulations of the College and the particular requirements for their educational program. The student has sole responsibility for complying with regulations and meeting degree requirements. General academic standards and regulations are set forth below.

Students should also consult the current Student Handbook, which explains College procedures, disciplinary regulations, residence student life and related matters. This handbook is available in the Office of the Dean of Students and the Office of the Director of Residence Life.

To be eligible for graduation a student must have satisfactorily completed all the courses required in the program for which they are registered. In following their program all students must successfully complete all prerequisite courses before moving to more advanced work. All students must obtain a minimum average of $C$ (i.e., a cumulative scholarship index of 2.00 , computed according to the method set forth in the College Catalog). Students are personally responsible for meeting the degree requirements prescribed in the Catalog at the time they entered Manhattan College.

## Grading

The grades used to indicate the quality of the student's performance in every course are as follows: A means excellent, B means good, C means satisfactory, D means poor but passing, F means failing. For the purpose of computing grade point averages, the corresponding numerical equivalents for letter grades will be used:

| Grade | Quality Points |
| :--- | :--- |
| A | 4.0 |
| A- | 3.67 |
| B+ | 3.33 |
| B | 3.0 |
| B- | 2.67 |
| C+ | 2.33 |
| C | 2.0 |
| C- | 1.67 |
| D+ | 1.33 |
| D | 1.0 |
| P | 0.0 |
| F | 0.0 |

W Withdrawal. Indicates withdrawal from a course in which the student is regularly enrolled. The student is required to have the withdrawal notification form signed by the instructor of the course and the dean of the student's school. The deadline for withdrawal from a course will be the end of the twelfth week of the semester. In "W" courses, neither quality hours nor quality points are assigned.

AW Administrative Withdrawal - Indicates a student has never attended a course that they were officially registered for.
An AW grade will function the same as a Drop.
UW Unofficial Withdrawal - Indicates a student has stopped attending a course that they were officially registered for.
A UW grade will function the same as an F grade.
P Passing. No quality points assigned.
NC No Credit.
P/F Pass/Fail. In Pass/Fail courses, neither grade influences the grade point average.
Credit is awarded for a P grade; no credit for F .
Quality points and quality hours are assigned for every credit attempted at Manhattan except those taken on a Pass/Fail basis, and those for which designations of a W or an I have been assigned. The scholarship index is determined by dividing the total number of quality points earned by the total number of quality hours.

For all students, the cumulative scholarship index is computed at the end of each semester; for those who attend the summer or winter sessions, it is also computed at the end of each session.

## GPA Calculation

## Computing the Grade Point Index (GPA)

The following is the method by which a student's GPA is calculated:

1. Multiply the quality points equal to the grade by the number of credits for which the grade was earned

$$
\text { A=4.00 quality points } \times 3 \text { credits }=12.00 \text { points }
$$

2. Add the total quality points earned in a semester
3. Divide by the total number of credits for a semester

The total quality points, divided by the total credits equals the GPA for the semester. To compute a cumulative grade point average, include all MC courses taken to date and divide by the total number of credits for which grades other than $\mathrm{W}, \mathrm{P}, \mathrm{NC}, \mathrm{AUD}$, have been earned or given.

## Incomplete Grades

An " l " grade indicates that some requirement of a course has not been satisfied by the end of the term. In all cases, the incomplete work must be completed and submitted to the instructor no later than 45 days from the last day of the term's final examination period. The faculty member must submit the final grade no later than 50 days from the last day of the term's final examination period. An incomplete will be converted to a grade of F if the work is not completed on schedule and if the final grade is not submitted on schedule. Extensions for the completion of the work or the submission of the final grade will be granted by the Dean of the school only in highly unusual circumstances. All incomplete grades must be resolved before the student graduates. A grade of "I" does not satisfy the grade requirement for any prerequisite course. The "l" grade must be resolved with an acceptable grade before a prerequisite course can be counted as being successfully completed and before the student is permitted to take any course requiring the prerequisite.

## Repeating a Course

If a student repeats a course, both grades will be shown on the transcript and are included in both the semester and cumulative GPA, unless, the student applies for the grade replacement policy.

## Grade Replacement Policy (effective 2018-2019)

The Manhattan College grade course replacement policy primarily applies to any student who has not met the minimum required grade for their program of study. Secondarily, a student who has earned a C or less in a course may be allowed to apply this policy to improve the course grade and cumulative GPA. When the student repeats the same course at Manhattan College the higher of the two grades is used in calculating the student's GPA. The lower grade will remain on the student's record but will not be used in the calculation of the cumulative GPA. No additional credits are earned. All grades earned will appear on the student's transcript. See requirements below:

## Grade Replacement Conditions

- Eligible students wishing to apply the course replacement policy may do so at any time during their undergraduate enrollment, but petitions will not be honored after the degree is awarded.
- Ordinarily, this applies only to the first time a course is repeated.
- Applies to 100 or 200-level courses taken at Manhattan College. The dean of the student's school will approve or deny the application.
- A student may petition to apply the same policy for a 300 or 400 -level course. The dean of the student's school will approve or deny the student's petition.
- Ordinarily, it is expected that students repeat a course within a year after first taking it
- Applies to no more than 16 credits of the student's academic record.
- The grade of the original course will not be removed from the GPA calculation until after the new grade has been completed at the end of the term.
- Only the higher of the two grades is used in calculating the GPA.
- The lower grade remains on the student's transcript and will not be used in the calculation of the cumulative GPA. No additional credits are earned.
- All grades remain on the transcript.
- Grade replacement may not be used to replace a grade assigned as a result of academic dishonesty.
- Does not apply for courses which transfer credits have been awarded.
- Grades of "W" or "AUDIT" will not replace previous grades.
- G.I. Bill ® students and others receiving Veterans Administration benefits are advised that replacement of any grade other than an unsatisfactory grade must be reported to the V.A. and may result in the retroactive reduction of benefits for the semester for which the replaced grade was originally assigned. An unsatisfactory grade may be replaced without similar consequences. Notify the Veteran Certifying Official when applying to use this option.
- Federal and/or state regulations may supersede portions of this policy. For example, students with financial aid are required to follow federal regulations regarding repeating courses. Please consult with the Office of Financial Aid to check how this policy may impact your eligibility for financial aid.

Note: In the future, if you apply for admission to other colleges, universities, graduate, and professional schools, or if your record is evaluated by a national testing agency such as AMCAS or LSDAS, both MC grades will likely be included in the calculation of your GPA.

## Academic Warning

Students will be considered to be officially on warning when a statement to that effect has been issued from the Dean's office noting that there is some indication that the student is experiencing difficulty in maintaining the academic standards necessary for graduation. Such warning will usually include an offer of academic counseling.

## Academic Probation

The regulations of Manhattan College provide that students are subject to be placed on academic probation when their cumulative grade index falls below the norm for satisfactory academic progress (see above). Students may remove themselves from academic probation by achieving the cumulative grade index consistent with the norms for satisfactory academic progress by the end of the following regular semester. Students on
academic probation may be required to take a reduced course load and be restricted from participating in College activities.

## Academic Suspension

Students are subject to suspension from the College when dismissal is indicated and a judgment is made that a student's studies at Manhattan should be interrupted for a designated period of time, usually six months or one year, before reinstatement would be considered. Suspended students must present evidence of their ability to continue their studies successfully when applying for such reinstatement.

## Academic Dismissal

Academic dismissal is considered a permanent separation from the College (not just from a school of the College), ordinarily imposed when there is a poor history and prognosis of academic success. Students may be dismissed from the College if they fail to meet satisfactory academic progress standards within one semester of being placed on probation or fail to observe the restrictions imposed during probation. Students may also be dismissed from the College when they receive failing grades in all credits attempted in any one semester. Academic Dismissal is noted on the student transcript.

A student may appeal a dismissal decision to the dean of the student's school. A written appeal for reconsideration must be submitted to the dean within 14 days of being notified of the dismissal, providing a credible explanation for the student's unsatisfactory academic performance and a compelling reason why the student should not be dismissed. The dean, in consultation with the Provost's Office, will review the appeal and give the student a decision of acceptance or denial within 14 days after receiving the appeal. The dean's decision regarding the appeal is final.

If the appeal is granted, a plan for achieving satisfactory academic progress will be prepared by the dean, with a specific timeline. If a student fails to follow or meet the requirements as outlined in the academic progress plan, they will be dismissed from the College. This decision will be final and not subject to appeal.

After dismissal, students may not reapply to the College until they have been away for at least two years. As part of the reapplication process, students must provide evidence that they are now able to successfully make progress toward their degree. Reapplication does not guarantee admittance to the College. If a student is readmitted after a period of two years and is academically dismissed a second time, the dismissal is final and there is no opportunity to appeal.

## Withdrawal from the College

## Regular Withdrawal

Students currently enrolled in Manhattan College who wish to withdraw from the College, effectively ending their status as matriculated students, must complete the required Manhattan College Withdrawal Form. An appointment should be made with the appropriate Academic Advisor to have an exit interview and to complete the required form. This form must be completely filled out or students will not be eligible for tuition adjustments and may be responsible for paying back any financial aid received from the College. Students will be considered withdrawn on the date that they officially notify the

College. Students who withdraw from the College after the last day for course withdrawal will receive a grade of "F" for all courses during the session unless a waiver is granted by the Provost for medical, psychological or emergency reasons. In this case, the student will receive a grade of "W" for all courses during that session.

## Administrative Withdrawal

A student may be administratively withdrawn from the College:

1. If they fail to register for classes by the end of the add/drop period.
2. If they fail to attend classes by the end of the add/drop period.
3. If they have not returned to the College or fails to qualify to return to the College when the approved period of leave of absence has expired.
4. If they have not returned after academic or disciplinary suspension at the time specified and the period of suspension has not been extended.
5. If in extraordinary circumstances a student is unable or unwilling to request a voluntary leave of absence or a voluntary medical leave of absence and there is a clear need to protect the safety of the student and/or others or to protect the integrity of the College's learning environment.

## Retroactive Withdrawal

Retroactive withdrawals from classes are generally not allowed. Under exceptional circumstances, a retroactive withdrawal may be approved if the issue precipitating the withdrawal has been documented and communicated to a student's advisor before the end of a semester. No retroactive withdrawals will be approved beyond 30 days after the end of the semester.

Medical Withdrawals approved within the 30-day deadline must have an official withdrawal date specified within the term and if no such date is provided, the default date will be one day before the last date of the semester.

## Involuntary Medical Leave

If the College determines that a student should be placed on leave due to medical or psychological reasons related to the health and safety of the student, Manhattan College reserves the right to place a student on an involuntary withdrawal from the student's academic program of study. This may occur when the student is not able or willing to take a voluntary leave and the College has made a reasonable determination that the student poses a direct threat to the health and/or safety of self and others.

Where Manhattan College believes that an involuntary withdrawal is to be considered, the Dean of Students will identify a team of professionals to make a reasoned determination. Included on that decision-making team will be a medical or mental health professional. The student will be informed of the College's concerns and the pending decision to consider an involuntary withdrawal.

The College reserves the right to notify parents or legal guardians if deemed appropriate under the circumstances and applicable law, including making arrangements for family members to pick the student up from the College's facilities, house the student or obtain health care assistance.

## Reinstatement Following Withdrawal

A student who withdraws or is withdrawn from the College may apply for reinstatement. In order to return to the College from a withdrawn status, a student must make a request in writing to their Dean at least eight weeks before the beginning of the semester to which the student seeks to return. The College reserves the right to require, review and approve documentation that the student is qualified and ready to return to academic work.

In the case of a voluntary withdrawal for medical/psychological reasons or any administrative withdrawal under this policy related to a physical or mental health condition, the student must submit a written progress assessment from a treating health professional as part of the request for reinstatement. The Director of Counseling and Health Services may require a release from the student to discuss current treatment and follow-up needs with the treating health professional, in order to assess whether the student is qualified and ready to return to the College and whether the College can provide the follow-up care needed to maintain the student's enrollment. The Director of Counseling and Health Services approves the return of all students who have withdrawn or been withdrawn for medical or psychological reasons.

Students who are reinstated following withdrawal from College will comply with the degree requirements of the catalog in effect when they are reinstated.

## Withdrawal from a Course

After the Add/Drop period at the beginning of each semester, students are permitted to withdraw from a course without academic penalty until the twelfth week of the semester. Students can withdraw from courses using Self-Service, but will not be permitted to withdraw from all courses using this method. Withdrawing from a course after the Add/ Drop period and before the deadline for all withdrawals places a W on the transcript for that course. After the withdrawal deadline at the end of the twelfth week, the student will receive a grade of $F$ for that course, unless there are extraordinary circumstances (such as severe illness) that merit an exception. Students are cautioned to avoid a pattern of regularly accumulating W grades on their transcripts.

## Course Requirements

At the beginning of each semester or session, each instructor is expected in each course to state the objectives of the course, indicate the course requirements, and the criteria to be used in evaluating the performance of students. Each instructor is also expected to announce whether a final examination for the course will be given, and likewise, will outline the course requirements and indicate the criteria to be used in evaluating the performance of students.

## Attendance Policy

Students are required to fulfill all course requirements as detailed in the course syllabi for their registered courses. Implicit in these requirements is the completion of all course assignments and attendance in all classes.

A student who is absent from class cannot expect the course instructor to provide notes or allow makeup tests, quizzes, or laboratories. The student may incur an appropriate grading penalty for such absences if the penalty was described in the
syllabus. Reasonable accommodations for absences are recommended but are solely at the discretion of the course instructor.

If the instructor believes that a student's failure to attend class is substantially affecting the student's course grade, then the instructor is strongly encouraged to report the situation to the dean of the school in which the student is matriculated. It is recommended that the Dean be contacted by the course instructor after the student incurs four hours of absences in a course. The Dean will address the situation with the student.

## Credit Hour

During the fall and spring semesters, each class shall meet for at least 50 minutes per week per credit hour. Thus, a three-credit course shall meet for at least 150 minutes each week through three 50 minute periods, two 75 minute periods or one 150 minute period. After the last scheduled class of each semester and during the final exam period scheduled by the Registrar, each class shall have at least 150 minutes of class contact time. This contact time may be used for a final exam or, as appropriate: final project or papers including reflective papers; presentations or other recitations; annotated anthologies; poster sessions; annotated portfolios; fact sheets; question banks; memorandum or briefs; or other instructor supervised activities.

## Credit for Off-Campus Courses

Once matriculated into a degree-granting program (major) at Manhattan College (College), a student may not take off-campus courses offered by another accredited institution for transfer to the College without prior written approval from the student's academic advisor and the student's dean. A maximum of $\mathbf{1 2}$ credits may be taken in offcampus courses after matriculation. Each school may set limitations on what types of courses may or may not be approved for its students that are consistent with the College's overall requirements.

Credit for courses taken at other institutions by matriculated students of Manhattan College will be recognized under the following conditions:

1. Required courses in a major or in a minor may not be taken off-campus except in extenuating circumstances and with compelling reasons, and with the approval of the chair of the major or minor program.
2. Only courses from accredited two- and four-year colleges and from accredited universities will be considered.
3. Written approval to take courses with departmental or school course numbers is obtained in advance. First, the chair of the department offering the course at Manhattan must approve the off-campus course based on the equivalency or substitutability of the course. Second, the Dean of the student's school must approve the off-campus course based on the chair's assessment and other circumstances. Online courses are acceptable if approved. Approval to take courses without departmental or school course numbers may be approved by the dean.
4. The required form and transcript are filed with the Registrar and the required fee is paid to the Bursar.
5. The grade received at the other institution must be equivalent to or higher than the Manhattan College grade of C .
6. Grades earned at other institutions will not be transferred to the student's record at Manhattan College.
7. Study-abroad courses do not count toward the 12-credit maximum.
8. The required nine (9) credits of Religious Studies courses - RELS 110, a 200level course in Catholic Studies, and a 300-level course in Global Studies and Contemporary Issues - are at the core of the Lasallian heritage of the College. Generally, these courses will be taken on-campus. These courses are offered in both in-class and online formats by the College. A required RELS course may be taken off-campus if the RELS program does not offer enough openings in the course. Any exceptions will only be permitted for one of the three-credit RELS courses and as part of the overall 12 credits allowed. Any RELS course taken off-campus to meet the nine-credit hour requirement will require review for equivalency or substitutability by the dean of the School of Liberal Arts before approval by the student's dean.
9. Each School may adopt additional guidelines to meet specific accreditation or curricular requirements for its programs.

## Leave of Absence

Students currently enrolled in Manhattan College who wish to leave the College in the following semester for personal, medical or psychological reasons, after which they intend to return, should request a leave of absence from the Dean of their School. With approval, a student can take a leave of absence not to exceed one year. Students requesting a leave of absence for medical or psychological reasons must have their requests reviewed by the Director of Counseling and Health Services.

If the request for a leave of absence is approved, a maintenance-of-matriculation registration must be completed and will be used to maintain the student's matriculation status active during the leave. In addition, the maintenance-of-matriculation registration permits the student, on their return to Manhattan College, to follow the degree program requirements in effect at the time the leave was granted. In special circumstances, a student may apply through their Dean's office for one (and only one) additional semester of leave by completing a maintenance-of-matriculation registration. If a student is not returning after the approved maintenance of matriculation is over, they must inform their Academic Advisor.

A student whose request is approved will be billed a maintenance-of-matriculation fee.
Generally, students who have been approved for a leave of absence do not need to apply for reinstatement to the College. In addition, any academic scholarships awarded by the College will remain available to them after a one-semester leave of absence, provided they continue to meet the eligibility requirements. Students taking a leave of absence who are recipients of federal Title IV financial aid must consult with Student Financial Services to determine the implications of that leave on their financial aid eligibility.

A leave of absence for medical or psychological reasons requires prior approval of the Director of the Counseling Center. When the leave of absence is granted for medical or psychological reasons, the student can return to Manhattan College only after the Director of Counseling and Health Services has indicated that the medical or psychological condition has been addressed and the student is capable of resuming their studies
at Manhattan. To this end, the student will be required to submit a written progress assessment from a treating health professional attesting to the student's readiness to resume studies at Manhattan College. This documentation must address the diagnosis, prognosis and treatment plan for the semester of return. The Director of Counseling and Health Services may also require a release from the student to discuss current treatment and follow-up needs with the treating health professional, in order to assess whether the student is qualified and ready to return to the College. The director of counseling and health services approves the return of all students who have been granted a leave of absence for medical or psychological reasons.

If a student is approved for a leave of absence and later is suspended, dismissed or placed on probation as a result of academic issues or suspended or expelled as the result of a judicial decision, these sanctions take precedence over a leave of absence and stand as a matter of record.

## Procedures

## Grades

Final grades can be viewed on self-service at the end of each semester and at the conclusion of work in the Summer and January Intersessions. Mid-term grades are issued to all undergraduate students to indicate their standing in courses up to that time and to assist faculty and advisors in providing students the necessary guidance they might require. These mid-semester grades are not recorded on the permanent academic record.

## Contested Grades

If a student believes that their final grade in a course is not consistent with the grading criteria designated by the course instructor, the student should first discuss the matter with the course instructor. If the student and the instructor cannot resolve the matter in this discussion, the student may discuss the matter with the department chair. Copies of all graded tests, quizzes, and other assignments will be needed.

In the event that the student is not satisfied with the outcome of the discussions with the course instructor and the chair, the student may make a written request to the chair for formal consideration of the problem. This request must be submitted within three weeks after the beginning of the semester immediately following the regular Fall or Spring semester. Included in the request will be an outline of the student's specific complaints. The chair shall make a detailed investigation and shall notify the student and course instructor of their findings. The student may appeal the findings of the chair to the Dean of the school in which the course was offered. The Dean of the school will respond to the student in writing and will preserve the documentation of the process. When the department chair is the course instructor, the student may appeal to the Dean of the school in which the course was taught who will investigate the matter and notify the student and the department chair of their findings.

Students should be aware that only the course instructor may change a grade.

## Grade Changes

All course grades (except "l" grades) are intended to be final and permanent. It is expected that course instructors will determine and report final grades as accurately and
precisely as the nature of the evaluation of student achievement and the grading system will permit. It is considered the instructor's direct and personal responsibility to ensure that grades are fair and reported correctly.

Notwithstanding all precautions, faculty members can make errors. When this occurs, the errors should be corrected so that students are not unfairly penalized. If a course instructor decides to request a grade correction, the appropriate forms must be completed and sent to the Dean of the school in which the course was taught. A copy of the change of grade form will be sent to the Dean of the school where the student is registered. Except in the case of contested grades, all requests for correcting grades must be submitted by last day of the fourth week of the semester of the following Fall or Spring semester. Only the course instructor can submit a grade change request. The Dean of the school where the course is taught may disapprove of the request, indicating in writing the reason why.

## Academic Progress Requirements

All students are required to maintain good academic standing as a condition of enrollment at Manhattan College. The guidelines vary, depending upon the student's grade level. Good academic standing is measured by reviewing a student's quantitative and qualitative progress. The quantitative measurement ensures that students are making progress toward their degree goals, while the qualitative measurement ensures that students are succeeding in their coursework.

- All undergraduate students are required to have a cumulative average of 1.80 at the end of freshman year, 1.90 at the end of sophomore year and then a 2.0 or higher by your junior year while earning a minimum number of credits to demonstrate good academic standing.
- All undergraduate students are required to maintain a 2.0 for any institutional aid; this does not include scholarship aid.
- All graduate students are required to have a cumulative average of 3.0 or higher while earning a minimum number of credits to demonstrate good academic standing.
- All undergraduate and graduate students will only have federal aid paid one time for courses they are repeating to improve a course grade.
- Each School at Manhattan College may implement additional guidelines for satisfactory academic progress in their programs.

In addition to the Manhattan College academic progress policy for all students, students who receive financial aid are subject to academic progress guidelines: view the SAP Policy (https://inside.manhattan.edu/offices/financial-aid/policies.php\#sap)

| Attempted Credits and Transfer Credits | Cumulative Grade Point Average |
| :--- | :--- |
| $1-26$ | 1.8 |
| $27-59$ | 1.9 |
| 60 and above | 2.0 |

## Change of Program

Students wishing to change their degree program to another program at Manhattan should seek the advice of the Dean or Academic Advisor of the program they wish to
enter. The Dean or Academic Advisor will examine the student's academic record to determine if the desired change in the degree program is advisable. Students wishing to change their program should do so before the end of their third semester at Manhattan. Students should take note that no part of their academic record will be altered when they change their degree program. All courses and grades remain on the academic record and constitute the student's academic history.

## Transcripts

Transcripts can be ordered by letter, online (http://www.getmytranscript.com), or in-person from the Office of the Registrar. To ensure prompt delivery of the transcript, requests should be made at least two weeks before the transcript is desired. The established fee for each transcript is five dollars*.
*Other fees may apply.

## Academic Dismissal

## Academic Dismissal

Academic dismissal is considered a permanent separation from the College (not just from a school of the College), ordinarily imposed when there is a poor history and prognosis of academic success. Students may be dismissed from the College if they fail to meet satisfactory academic progress standards within one semester of being placed on probation or fail to observe the restrictions imposed during probation. Students may also be dismissed from the College when they receive failing grades in all credits attempted in any one semester. Academic Dismissal is noted on the student transcript.

A student may appeal a dismissal decision to the dean of the student's school. A written appeal for reconsideration must be submitted to the dean within 14 days of being notified of the dismissal, providing a credible explanation for the student's unsatisfactory academic performance and a compelling reason why the student should not be dismissed. The dean, in consultation with the Provost's Office, will review the appeal and give the student a decision of acceptance or denial within 14 days after receiving the appeal. The dean's decision regarding the appeal is final.

If the appeal is granted, a plan for achieving satisfactory academic progress will be prepared by the dean, with a specific timeline. If a student fails to follow or meet the requirements as outlined in the academic progress plan, they will be dismissed from the College. This decision will be final and not subject to appeal.

After dismissal, students may not reapply to the College until they have been away for at least two years. As part of the reapplication process, students must provide evidence that they are now able to successfully make progress toward their degree. Reapplication does not guarantee admittance to the College. If a student is readmitted after a period of two years and is academically dismissed a second time, the dismissal is final and there is no opportunity to appeal.

## Academic Probation

## Academic Probation

The regulations of Manhattan College provide that students are subject to be placed on academic probation when their cumulative grade index falls below the norm for satisfactory academic progress (see above). Students may remove themselves from academic probation by achieving the cumulative grade index consistent with the norms for satisfactory academic progress by the end of the following regular semester. Students on academic probation may be required to take a reduced course load and be restricted from participating in College activities.

## Academic Suspension

## Academic Suspension

Students are subject to suspension from the College when dismissal is indicated and a judgment is made that a student's studies at Manhattan should be interrupted for a designated period of time, usually six months or one year, before reinstatement would be considered. Suspended students must present evidence of their ability to continue their studies successfully when applying for such reinstatement.

## Academic Warning

## Academic Warning

Students will be considered to be officially on warning when a statement to that effect has been issued from the Dean's office noting that there is some indication that the student is experiencing difficulty in maintaining the academic standards necessary for graduation. Such warning will usually include an offer of academic counseling.

## Attendance Policy

## Attendance Policy

Students are required to fulfill all course requirements as detailed in the course syllabi for their registered courses. Implicit in these requirements is completion of all course assignments and attendance in all classes.

A student who is absent from class cannot expect the course instructor to provide notes or allow makeup tests, quizzes, or laboratories. The student may incur an appropriate grading penalty for such absences if the penalty was described in the syllabus. Reasonable accommodations for absences are recommended, but are solely at the discretion of the course instructor.

If the instructor believes that a student's failure to attend class is substantially affecting the student's course grade, then the instructor is strongly encouraged to report the situation to the dean of the school in which the student is matriculated. It is recommended that the dean be contacted by the course instructor after the student incurs four hours of absences in a course. The dean will address the situation with the student.

## Academic Progress

## Academic Progress Requirements

All students are required to maintain good academic standing as a condition of enrollment at Manhattan College. The guidelines vary, depending upon the student's grade level and depending upon which form(s) of aid they are receiving. Good academic standing is measured by reviewing a student's quantitative and qualitative progress. The quantitative measurement ensures that students are making progress toward their degree goals, while the qualitative measurement ensures that students are succeeding in their coursework.

- All undergraduate students are required to have a cumulative average of 1.80 end of freshman year, 1.90 end of sophomore year and then a 2.0 or higher by your junior year while earning a minimum number of credits to demonstrate good academic standing.
- All undergraduate students are required to maintain a 2.0 for any institutional aid; this does not include scholarship aid.
- All graduate students are required to have a cumulative average of 3.0 or higher while earning minimum number of credits to demonstrate good academic standing.
- All undergraduate and graduate students will only have federal aid paid one time for courses they are repeating to improve a course grade.
- Each School at Manhattan College may implement additional guidelines for satisfactory academic progress in their programs.

In addition to the Manhattan College academic progress policy for all students, students who receive financial aid are subject to academic progress guidelines.
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| Attempted Credits and Transfer Credits | Cumulative Grade Point Average |
| :--- | :--- |
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## Change of Program

## Change of Program

Students wishing to change their degree program to another program at Manhattan should seek the advice of the Dean or Academic Advisor of the program they wish to enter. The Dean or Academic Advisor will examine the student's academic record to determine if the desired change in degree program is advisable. Students wishing to change their program should do so before the end of their third semester at Manhattan. Students should take note that no part of their academic record will be altered when they change their degree program. All courses and grades remain on the academic record and constitute the student's academic history.

## Credits

Credit Hour
During the fall and spring semesters, each class shall meet for at least 50 minutes per week per credit hour. Thus, a three-credit course shall meet for at least 150 minutes each week through three 50 minute periods, two 75 minute periods or one 150 minute period.
After the last scheduled class of each semester and during the final exam period scheduled by the Registrar, each class shall have at least 150 minutes of class contact time. This contact time may be used for a final exam or, as appropriate: final project or papers including reflective papers; presentations or other recitations; annotated anthologies; poster sessions; annotated portfolios; fact sheets; question banks; memorandum or briefs; or other instructor supervised activities.

## Credit for Off-Campus Courses

Once matriculated into a degree-granting program (major) at Manhattan College (College), a student may not take off-campus courses offered by another accredited institution for transfer to the College without prior written approval from the student's academic advisor and the student's dean. A maximum of 12 credits may be taken in offcampus courses after matriculation. Each school may set limitations on what types of courses may or may not be approved for its students that are consistent with the College's overall requirements.

Credit for courses taken at other institutions by matriculated students of Manhattan College will be recognized under the following conditions:

1. Required courses in a major or in a minor may not be taken off-campus except in extenuating circumstances and with compelling reasons, and with the approval of the chair of the major or minor program.
2. Only courses from accredited two- and four-year colleges and from accredited universities will be considered.
3. Written approval to take courses with departmental or school course numbers is obtained in advance. First, the chair of the department offering the course at Manhattan must approve the off-campus course based on the equivalency or substitutability of the course. Second, the Dean of the student's school must approve the off-campus course based on the chair's assessment and other circumstances. On-line courses are acceptable if approved. Approval to take courses without departmental or school course numbers may be approved by the dean.
4. The required form and transcript are filed with the Registrar and the required fee is paid to the Bursar.
5. The grade received at the other institution must be equivalent to or higher than the Manhattan College grade of C.
6. Grades earned at other institutions will not be transferred to the student's record at Manhattan College.
7. Study-abroad courses do not count toward the 12-credit maximum.
8. The required nine (9) credits of Religious Studies courses - RELS 110, a 200level course in Catholic Studies, and a 300-level course from Global Studies and

Contemporary Issues - are at the core of the Lasallian heritage of the College. Generally, these courses will be taken on-campus. These courses are offered in both in-class and online formats by the College. A required RELS course may be taken off-campus if the RELS program does not offer enough openings in the course. Any exceptions will only be permitted for one of the three-credit RELS courses and as part of the overall 12 credits allowed. Any RELS course taken off-campus to meet the nine credit hour requirement will require review for equivalency or substitutability by the dean of the School of Liberal Arts before approval by the student's dean.

1. Each School may adopt additional guidelines to meet specific accreditation or curricular requirements for its programs.

## Grades

## Grades

Final grades can be viewed on self-service at the end of each semester and at the conclusion of work in the Summer and January Intersessions. Mid-term grades are issued to all undergraduate students to indicate their standing in courses up to that time and to assist faculty and advisors in providing students the necessary guidance they might require. These mid-semester grades are not recorded on the permanent academic record.

## Contested Grades

If a student believes that their final grade in a course is not consistent with the grading criteria designated by the course instructor, the student should first discuss the matter with the course instructor. If the student and the instructor cannot resolve the matter in this discussion, the student may discuss the matter with the department chair. Copies of all graded tests, quizzes, and other assignments will be needed.

In the event that the student is not satisfied with the outcome of the discussions with the course instructor and the chair, the student may make a written request to the chair for a formal consideration of the problem. This request must be submitted within three weeks after the beginning of the semester immediately following the regular Fall or Spring semester. Included in the request will be an outline of the student's specific complaints. The chair shall make a detailed investigation and shall notify the student and course instructor of their findings. The student may appeal the findings of the chair to the Dean of the school in which the course was offered. The Dean of the school will respond to the student in writing and will preserve the documentation of the process. When the department chair is the course instructor, the student may appeal to the Dean of the school in which the course was taught who will investigate the matter and notify the student and the department chair of their findings.

Students should be aware that only the course instructor may change a grade.

## Grade Changes

All course grades (except "l" grades) are intended to be final and permanent. It is expected that course instructors will determine and report final grades as accurately and precisely as the nature of the evaluation of student achievement and the grading system will permit. It is considered the instructor's direct and personal responsibility to insure that grades are fair and reported correctly.

Notwithstanding all precautions, faculty members can make errors. When this occurs, the errors should be corrected so that students are not unfairly penalized. If a course instructor decides to request a grade correction, the appropriate forms must be completed and sent to the Dean of the school in which the course was taught. A copy of the change of grade form will be sent to the Dean of the school where the student is registered. Except in the case of contested grades, all requests for correcting grades must be submitted by last day of the fourth week of the semester of the following Fall or Spring semester. Only the course instructor can submit a grade change request. The Dean of the school where the course is taught may disapprove of the request, indicating in writing the reason why.

## Grading

The grades used to indicate the quality of the student's performance in every course are as follows: A means excellent, B means good, C means satisfactory, D means poor but passing, F means failing. For the purpose of computing grade point averages, the corresponding numerical equivalents for letter grades will be used:

| Grade | Quality Points |
| :--- | :--- |
| A | 4.0 |
| A- | 3.67 |
| B+ | 3.33 |
| B | 3.0 |
| B- | 2.67 |
| C+ | 2.33 |
| C | 2.0 |
| C- | 1.67 |
| D+ | 1.33 |
| D | 1.0 |
| P | 0.0 |
| F | 0.0 |

W Withdrawal. Indicates withdrawal from a course in which the student is regularly enrolled. The student is required to have the withdrawal notification form signed by the instructor of the course and the dean of the student's school. The deadline for withdrawal from a course will be the end of the twelfth week of the semester. In "W" courses, neither quality hours nor quality points are assigned.

AW Administrative Withdrawal. Indicates a student has never attended a course in which the student was officially enrolled. Neither quality hours nor quality points are assigned.

UW Unofficial Withdrawal. Indicates a student has stopped attending a course in which the student was officially enrolled. Quality hours and quality points are equivalent to an $F$ grade.

P Passing. No quality points assigned.
NC No Credit.
P/F Pass/Fail. In Pass/Fail courses, neither grade influences the grade point average. Credit is awarded for a P grade; no credit for F .

Quality points and quality hours are assigned for every credit attempted at Manhattan except those taken on a Pass/Fail basis, and those for which designations of a W or an I have been assigned. The scholarship index is determined by dividing the total number of quality points earned by the total number of quality hours.

For all students, the cumulative scholarship index is computed at the end of each semester; for those who attend the summer or winter sessions it is also computed at the end of each session.

## GPA Calculation

## Computing the Grade Point Index (GPA)

The following is the method by which a student's GPA is calculated:

1. Multiply the quality points equal to the grade by the number of credits for which the grade was earned
$A=4.00$ quality points $\times 3$ credits $=12.00$ points
2. Add the total quality points earned in a semester
3. Divide by the total number of credits for a semester

The total quality points, divided by the total credits equals the GPA for the semester. To compute a cumulative grade point average, include all MC courses taken to date and divide by the total number of credits for which grades other than W, P, NC, AUD, have been earned or given.

## Graduation

## Graduation Policy

Each student is expected to be familiar with the academic regulations of the College and the particular requirements of their educational program. The student has sole responsibility for complying with regulations and meeting degree requirements. General academic standards and regulations are set forth below.

Students should also consult the current Student Handbook, which explains College procedures, disciplinary regulations, residence student life and related matters. This handbook is available in the Office of the Dean of Students and the Office of the Director of Residence Life.

To be eligible for graduation a student must have satisfactorily completed all the courses required in the program for which they are registered. In following their program, a student must successfully complete all prerequisite courses before moving to more advanced work. All students must obtain a minimum average of $C$ (i.e., a cumulative scholarship index of 2.00 , computed according to the method set forth in the College Catalog). Students are personally responsible for meeting the degree requirements prescribed in the Catalog at the time they entered Manhattan College.

## Incomplete Grades

## Incomplete Grades

An " l " grade indicates that some requirement of a course has not been satisfied by the end of the term. In all cases, the incomplete work must be completed and submitted to the instructor no later than 45 days from the last day of the term's final examination period. The faculty member must submit the final grade no later than 50 days from the last day of the term's final examination period. An incomplete will be converted to a grade of F if the work is not completed on schedule and if the final grade is not submitted on schedule. Extensions for the completion of the work or the submission of the final grade will be granted by the Dean of the school only in highly unusual circumstances. All incomplete grades must be resolved before the student graduates. A grade of "l" does not satisfy the grade requirement for any prerequisite course. The "l" grade must be resolved with an acceptable grade before a prerequisite course can be counted as being successfully completed and before the student is permitted to take any course requiring the prerequisite.

## Leave of Absence

## Leave of Absence

Students currently enrolled in Manhattan College who wish to leave the College in the following semester for personal, medical or psychological reasons, after which they intend to return, should request a leave of absence from the Dean of their School. With approval, a student can take a leave of absence not to exceed one year. Students requesting a leave of absence for medical or psychological reasons must have their requests reviewed by the Director of Counseling and Health Services.


#### Abstract

If the request for a leave of absence is approved, a maintenance-of-matriculation registration must be completed and will be used to maintain the student's matriculation status active during the leave. In addition, the maintenance-of-matriculation registration permits the student on their return to Manhattan College, to follow the degree program requirements in effect at the time the leave was granted. In special circumstances, a student may apply through their Dean's office for one (and only one) additional semester of leave by completing a maintenance-of-matriculation registration. If a student is not returning after the approved maintenance of matriculation is over, they must inform their Academic Advisor.

A student whose request is approved will be billed a maintenance-of-matriculation fee.


Generally, students who have been approved for a leave of absence do not need to apply for reinstatement to the College. In addition, any academic scholarships awarded by the College will remain available to them after a one-semester leave of absence, provided they continue to meet the eligibility requirements. Students taking a leave of absence who are recipients of federal Title IV financial aid must consult with Student Financial Services to determine the implications of that leave on their financial aid eligibility.

A leave of absence for medical or psychological reasons requires prior approval of the Director of the Counseling Center. When the leave of absence is granted for medical or psychological reasons, the student can return to Manhattan College only after the Director of Counseling and Health Services has indicated that the medical or psychological condition has been addressed and the student is capable of resuming their studies at Manhattan. To this end, the student will be required to submit a written progress assessment from a treating health professional attesting to the student's readiness to resume studies at Manhattan College. This documentation must address the diagnosis, prognosis and treatment plan for the semester of return. The Director of Counseling and Health Services may also require a release from the student to discuss current treatment and follow-up needs with the treating health professional, in order to assess whether the student is qualified and ready to return to the College. The director of counseling and health services approves the return of all students who have been granted a leave of absence for medical or psychological reasons.

If a student is approved for a leave of absence and later is suspended, dismissed or placed on probation as a result of academic issues or suspended or expelled as the result of a judicial decision, these sanctions take precedence over a leave of absence and stand as a matter of record.

## Involuntary Medical Leave

If the College determines that a student should be placed on a leave due to medical or psychological reasons related to the health and safety of the student, Manhattan College reserves the right to place a student on an involuntary withdrawal from the student's academic program of study. This may occur when the student is not able to willing to take a voluntary leave and the College has made a reasonable determination that the student poses a direct threat to the health and/or safety of self and others.

Where Manhattan College believes that an involuntary withdrawal is to be considered, the Dean of Students will identify a team of professionals to make a reasoned determination. Included on that decision-making team will be a medical or mental health professional. The student will be informed of the College's concerns and the pending decision to consider an involuntary withdrawal.

The College reserves the right to notify parents or legal guardians if deemed appropriate under the circumstances and applicable law, including making arrangements for family members to pick the student up from the College's facilities, house the student or obtain health care assistance.

## Online Course \& Program Definitions

## ONLINE COURSE-LEVEL DEFINITIONS

## Online Asynchronous Course (own time, off-campus)*

All course activity is done online with no pre-scheduled sessions. Purely online courses eliminate geography as a factor in the relationship between the student and the institution. They consist entirely of online elements that facilitate the three critical student interactions: course content, course instructor, and other students. These courses are designed to meet the needs of students who do not have effective access to campus. They may reside near the campus, or they may reside quite a distance away in other states or even in other countries.

## Online Synchronous Course (scheduled, off-campus)*

Web-based technologies are used to deliver classroom lectures and other activities to students in real time during pre-scheduled sessions. These courses use web conferencing or other synchronous media to create a real-time classroom experience, including interaction with classmates and the instructor.

## Blended Course(both online and on-campus components)*

Course activity is done asynchronously online, but there are required real-time (synchronous and classroom-based) instructional activities, such as lectures, discussions, labs, or other face-to-face learning activities. The distinction of blended is important because the inclusion of face-to-face work sets geographic limitations on student access.

## ONLINE PROGRAM-LEVEL DEFINITIONS

Online Program (off-campus)*
Course designations include any combination: Online Asynchronous or Online Synchronous

All credits required to complete the program are offered as fully online (synchronous or asynchronous) courses. Students can complete the program completely at a distance, with no required on site meetings. Fully online programs are designed with the truly distant student in mind, also providing support services- registration, testing, advising, library support, etc.-at a distance.

## Blended Program (both online and on-campus components)*

Course designations may include any combination: Online Asynchronous, Online Synchronous, Blended, or In-Person.

A significant percentage, but not all, of the credits required for program completion are offered fully online. These programs provide increased access to students who are able to come to campus for some courses, laboratory work, intensive residencies, or other occasional group sessions. In-person sessions are organized to minimize travel requirements for distant students. All academic support services are available to distant students as well.

## Repeated Courses/Grade Replacement Repeating a Course

If a student repeats a course, both grades will be shown on the transcript and are included in both the semester and cumulative GPA, unless, the student applies for the grade replacement policy.

## Grade Replacement Policy (Effective 2018-2019 Year)

The Manhattan College grade course replacement policy primarily applies to any student who has not met the minimum required grade for his/her program of study. Secondarily, a student who has earned a C or less in a course may be allowed to apply this policy to improve the course grade and cumulative GPA. When the student repeats the same course at Manhattan College the higher of the two grades is used in calculating the student's GPA. The lower grade will remain on the student's record but will not be used in the calculation of the cumulative GPA. No additional credits are earned. All grades earned will appear on the student's transcript. See requirements below:

## Grade Replacement Conditions

- Eligible students wishing to apply the course replacement policy may do so at any time during his/her undergraduate enrollment, but petitions will not be honored after the degree is awarded.
- Ordinarily, this applies only to the first time a course is repeated.
- Applies to 100 or 200 -level courses taken at Manhattan College. The dean of the student's school will approve or deny the application.
- A student may petition to apply the same policy for a 300 or 400 -level course. The dean of the student's school will approve or deny the student's petition.
- Ordinarily, it is expected that students repeat a course within a year after first taking it
- Applies to no more than 16 credits of the student's academic record.
- The grade of the original course will not be removed from the GPA calculation until after the new grade has been completed at the end of the term.
- Only the higher of the two grades is used in calculating the GPA.
- The lower grade remains on the student's transcript and will not be used in the calculation of the cumulative GPA. No additional credits are earned.
- All grades remain on the transcript.
- Grade replacement may not be used to replace a grade assigned as a result of academic dishonesty.
- Does not apply for courses which transfer credits have been awarded.
- Grades of "W" or "AUDIT" will not replace previous grades.
- G.I. Bill students and others receiving Veterans Administration benefits are advised that replacement of any grade other than an unsatisfactory grade must be reported to the V.A. and may result in the retroactive reduction of benefits for the semester for which the replaced grade was originally assigned. An unsatisfactory grade may be
replaced without similar consequences. Notify the Veteran Certifying Official when applying to use this option.
- Federal and/or state regulations may supersede portions of this policy. For example, students with financial aid are required to follow federal regulations regarding repeating courses. Please consult with the Office of Financial Aid to check how this policy may impact your eligibility for financial aid.

Note: In the future, if you apply for admission to other colleges, universities, graduate, and professional schools, or if your record is evaluated by a national testing agency such as AMCAS or LSDAS, both MC grades will likely be included in the calculation of your GPA.

## Transcripts

## Transcripts

Transcripts can be ordered by letter, online (http://www.getmytranscript.com), or in-person from the Office of the Registrar. To ensure prompt delivery of the transcript, requests should be made at least seven days before the transcript is desired. The established fee for each transcript is five dollars.*
*Other fees may apply.

## Policy for Undergraduate taking Graduate Course-effective Fall 2023

Qualified undergraduate students in the O'Malley School of Business, Kakos School of Science, and School of Engineering may enroll in a maximum of six credit hours (cumulatively) of graduate courses while completing undergraduate degree requirements with appropriate approvals. Qualified B.S./M.S. five-year students in the Division of Education may take up to twelve credit hours of graduate courses while completing undergraduate degree requirements. To be qualified, an undergraduate student must have a cumulative grade point average of at least 3.00 at the time of registration for the graduate course(s). Other stipulations are:
-Senior status (90+ earned credits) is required when the courses are taken
-Registration in graduate courses will not result in any postponement of the completion of undergraduate degree requirements
-Graduate courses taken, under any condition, cannot be counted for both the undergraduate and graduate degree levels, unless as an approved part of program requirements of a dual degree program, such as the BS/MBA and the 5 -Year Education dual degree programs.

- Undergraduate students taking graduate courses should maintain a full-time undergraduate course load ( 12 credits minimum) each term to be charged the prevailing undergraduate level tuition and fee rates and receive associated scholarships, grants, and other applicable awards requiring full-time status. Deviations to the full-time course load requirement will require students to review the status of their awards with Financial Aid Administration, as enrollment in graduate courses for graduate credit while pursuing fewer than twelve credits for the undergraduate degree may result in part-time billing with added graduate tuition and a loss of undergraduate aid awards.
-Qualified students must formally request the graduate courses prior to enrolling on the Undergraduate Registration Form and secure signature approvals to enroll in the course(s) from the student's Advisor and the Graduate Program Director. The Department will update the appropriate Registration Permit-Override Code on the system for the course CRN(s) which will grant the student access to register online for the course(s) when registration periods are applicable
-Graduate courses approved, up to the maximum of six-credits at any level, fulfilling:
\#Undergraduate degree requirements, will be placed on the transcript at the undergraduate level and are subject to the prevailing undergraduate tuition and fee rates\# The total number of undergraduate credit hours, plus graduate course(s), must not exceed 17 semester hours in any Fall or Spring term (or 18 semester credit hours where the undergraduate catalog curriculum allows for the higher allotment). Hours in excess of the maximum allowed per semester will be billed at the prevailing tuition and fee rates pursuant to the level of the course(s)
\#Graduate degree requirements, will be placed on the transcript at the graduate level and are subject to the prevailing graduate tuition and fee rates. For students in the School of Engineering who have applied and been accepted to the Seamless Masters, where
all other conditions are met, a waiver of up to 6 credits will be granted in senior year to reverse the additional graduate tuition billed, provided that the semester hour cap is not exceeded.
-Graduate courses taken in intersession terms are billed at the prevailing graduate level tuition and fee rates
-Requested Graduate courses must be offered during the current semester inventory and not offered in tutorial, independent study, internship, abroad, clinical or research schedule types
-Requests to enroll in more than 6 credit hours (cumulatively) of graduate courses while completing an undergraduate degree requires special approval by the Dean and a completed graduate application submitted to Graduate Admissions for the related graduate program of study. These courses may not count toward the undergraduate degree level and prevailing graduate tuition and fee rates will apply
-Students enrolled in official 5-year programs may have additional program requirements to fulfill


## Withdrawal

## Withdrawal from the College

## Regular Withdrawal

Students currently enrolled in Manhattan College who wish to withdraw from the College, effectively ending their status as matriculated students, must complete the required Manhattan College Withdrawal Form . An appointment should be made with the appropriate Academic Advisor to have an exit interview and to complete the required form. This form must be completely filled out or students will not be eligible for tuition adjustments and may be responsible for paying back any financial aid received from the College. Students will be considered withdrawn on the date that they officially notify the College. Students who withdraw from the College after the last day for course withdrawal will receive a grade of "F" for all courses during the session unless a waiver is granted by the Provost for medical, psychological or emergency reasons. In this case, the student will receive a grade of "W" for all courses during that session.

## Administrative Withdrawal

A student may be administratively withdrawn from the College:

1. If the student fails to register for classes by the end of the add/drop period.
2. If the student fails to attend classes by the end of the add/drop period.
3. If the student has not returned to the College or fails to qualify to return to the College when the approved period of leave of absence has expired.
4. If the student has not returned after academic or disciplinary suspension at the time specified and the period of suspension has not been expended.
5. If in extraordinary circumstances a student is unable or unwilling to request a voluntary leave of absence or a voluntary medical leave of absence and there is a clear need to protect the safety of the student and/or others or to protect the integrity of the College's learning environment.

## Retroactive Withdrawal

Retroactive withdrawals from classes are generally not allowed. Under exceptional circumstances, a retroactive withdrawal may be approved if the issue precipitating the withdrawal has been documented and communicated to a student's advisor before the end of a semester. No retroactive withdrawals will be approved beyond 30 days after the end of the semester.

Medical Withdrawals approved within the 30-day deadline must have an official withdrawal date specified within the term and if no such date is provided, the default date will be one day before the last date of the semester.

## Involuntary Medical Leave

If the College determines that a student should be placed on leave due to medical or psychological reasons related to the health and safety of the student, Manhattan College reserves the right to place a student on an involuntary withdrawal from the student's academic program of study. This may occur when the student is not able or willing to take
a voluntary leave and the College has made a reasonable determination that the student poses a direct threat to the health and/or safety of self and others.

Where Manhattan College believes that an involuntary withdrawal is to be considered, the Dean of Students will identify a team of professionals to make a reasoned determination. Included on that decision-making team will be a medical or mental health professional. The student will be informed of the College's concerns and the pending decision to consider an involuntary withdrawal.

The College reserves the right to notify parents or legal guardians if deemed appropriate under the circumstances and applicable law, including making arrangements for family members to pick the student up from the College's facilities, house the student or obtain health care assistance.

## Reinstatement Following Withdrawal

A student who withdraws or is withdrawn from the College may apply for reinstatement. In order to return to the College from a withdrawn status, a student must make a request in writing to their Dean at least eight weeks before the beginning of the semester to which the student seeks to return. The College reserves the right to require, review, and approve documentation that the student is qualified and ready to return to academic work.

In the case of a voluntary withdrawal for medical/psychological reasons or any administrative withdrawal under this policy related to a physical or mental health condition, the student must submit a written progress assessment from a treating health professional as part of the request for reinstatement. The Director of Counseling and Health Services may require a release from the student to discuss current treatment and follow-up needs with the treating health professional, in order to assess whether the student is qualified and ready to return to the College and whether the College can provide the follow-up care needed to maintain the student's enrollment. The Director of Counseling and Health Services approves the return of all students who have withdrawn or been withdrawn for medical or psychological reasons.

Students who are reinstated following a withdrawal from College will comply with the degree requirements of the catalog in effect when they are reinstated.

## Withdrawal from a Course

After the Add/Drop period at the beginning of each semester, students are permitted to withdraw from a course without academic penalty until the twelfth week of the semester. Students can withdraw from courses using Self-Service, but will not be permitted to withdraw from all courses using this method. Withdrawing from a course after the Add/ Drop period and before the deadline for all withdrawals places a W on the transcript for that course. After the withdrawal deadline at the end of the twelfth week, the student will receive a grade of F for that course, unless there are extraordinary circumstances (such as severe illness) that merit an exception. Students are cautioned to avoid a pattern of regularly accumulating W grades on their transcripts.

## Course Requirements

At the beginning of each semester or session, each instructor is expected in each course to state the objectives of the course, indicate the course requirements, and the criteria to be used in evaluating the performance of students. Each instructor is also expected to
announce whether a final examination for the course will be given, and likewise will outline the course requirements and indicate the criteria to be used in evaluating the performance of students.

## Academic Support \& Resources

Center for Academic Success
Center for Career Development
Center for Graduate School \& Fellowship Advisement O'Malley Library
Specialized Resource Center
Study Abroad Opportunities
Opportunity Programs

## Center for Academic Success

The Center for Academic Success (CAS) is committed to providing student-centered and student-led programs and initiatives designed to enhance learning and promote success and persistence for all Manhattan College students. Students work collaboratively with qualified peers and professionals to develop knowledge, skills, and strategies needed to thrive in the classroom and beyond. The CAS employs peer tutors, writing consultants, writing fellows, student success mentors, supplemental instructors, professional learning specialists, and an English language specialist, all of whom work to support the academic success and learning experiences of all students. The CAS has two locations on campus: the Writing Center and the Learning Center in Thomas Hall, and the math and engineering tutoring center in Leo Hall.

The Center prides itself on its holistic approach to learning and is proud to offer various programs designed to support the entire student body. We provide tutoring designed to support students with their courses by providing them with content-specific assistance accessed through individual in-person or online tutoring. All peer tutors employed through the CAS meet the highest standards of academic achievement and are certified through the College Reading and Learning Association.

The Manhattan College Supplemental Instruction (SI) program targets traditionally difficult gateway courses and provides regularly scheduled peer-facilitated study groups. SI is an academic assistance program designed to improve student academic performance and increase retention.

Student Success Mentors work with students who want to improve their academic and self-management skills. This program seeks to support students as they strive to reach their academic goals. Each session is collaborative and tailored to the individual student's needs. Student and mentor work together to formulate a plan for academic support and promote self-advocacy.

The Writing Center offers peer-to-peer support on any writing-related assignment or task. Assistance is available for writing assignments from any discipline as well as for any professional writing activities. Our cornerstone practice is one-on-one conferencing with trained writing consultants. We forge intellectual partnerships to work on specific assignments, to increase confidence, and to improve overall writing performance. Our mission is to collaborate with writers from across the academic disciplines to nurture individuals' unique writing practices, to guide writers to hone their own writing processes, and to cultivate an equitable learning environment.

The Writing Fellows program matches a trained writing consultant with a section(s) of English 110. Writing Fellows attend their assigned section's class and facilitate writing conferences and workshops for their assigned students. The goal of this program is to support students in this foundational course as they adjust to the expectations of college academic writing and refine their own writing and research processes.

Our Learning Specialists are professional staff members who offer one-on-one support in reading, writing, and STEM disciplines. They meet with students who need assistance adjusting to the rigors of college academics. All sessions are tailored to the student's
individual learning needs. Learning Specialists are assigned to students on a referral basis.

Our professional English Language Specialist is available on a referral basis for students seeking instruction and support with the English language.

## Center for Career Development

The mission of the Center for Career Development (https://inside.manhattan.edu/ student-life/career-pathways/career-development/) is to contribute to the educational and professional development of students by helping them discern their vision for what constitutes a meaningful and purpose-driven career. We accomplish this by providing comprehensive, person-centered career counseling, programs, and events that encourage students to consider all career pathways, including graduate school and employment opportunities. We honor the uniqueness of all schools, providing diverse professional opportunities across disciplines and industries. Our approach facilitates engagement by employers, alumni and all devoted to the professional success of our students.

CCD provides walk-in hours and offers various professional training programs and services throughout the year. Students and alumni can schedule individual career counseling appointments to assess their interests, values, skills and preferences. Decision-making tools and career assessments are used to develop person-centered counseling. Career counselors teach effective job search techniques; discuss opportunities in a variety of career paths; help tailor résumés and cover letters; strengthen personal branding and build strong interviewing skills.

Students and alumni can access the on-line, 24-hour job posting board, Handshake (https://inside.manhattan.edu/student-life/career-pathways/career-development/students/ job-board.php), for full-time, part-time, internship (current students only) and temporary positions. For those seniors seeking full-time employment upon graduation, there is an active On- Campus Recruitment Program (https://inside.manhattan.edu/student-life/ career-pathways/career-development/students/recruiting.php) available during the fall and spring semesters. Representatives from companies/organizations come to campus to interview students for career opportunities.

Additionally, CCD offers the Mentor Program (https://inside.manhattan.edu/student-life/career-pathways/career-development/students/mentor-program-students.php) for Manhattan College students to gain insight into their intended careers by being paired with professionals, generally Manhattan College alumni, in those career areas. Meeting with mentors several times a semester, visiting the work sites, talking with other employees at the company, sitting in on a meeting, or sometimes participating in a project, offers the students opportunities to think about a chosen career field early in their college career. The program is open to incoming freshmen in the School of Engineering and to sophomores and juniors in the Schools of Liberal Arts, Business, Education \& Health and Science during the participating academic year.

Students can gain valuable work experience through the credit-based Internship Program (https://inside.manhattan.edu/student-life/career-pathways/career-development/students/ internships.php). A student can apply for an internship after earning 54 academic credits, completing the basics in their major (at least 12 credits) and who are in good academic standing. School of Engineering programs are not included because they do not award credit for internships. Internships complement and broaden students' education through the practical application of the theoretical and technical knowledge gained in the classroom. For those interested in the no-credit internship, review COOP 401 (see below) and schedule an appointment with a career counselor from CCD.

For any questions please stop by the Center for Career Development located in Thomas Hall, Suite 330 or contact us at 718-862-7224 or careerdevelopment@manhattan.edu.
COOP 401 Internship ..... 0

## Center for Graduate School and Fellowship Advisement


#### Abstract

The mission of the Manhattan College Center for Graduate School and Fellowship Advisement is to ensure that our graduating students and alumni who desire to continue on to graduate or professional school are provided with the preparation and support to make that transition and to succeed at the graduate level. In addition, we provide every level of support to students and alumni applying to external fellowships. The Center offers individualized advising, centralized resources and information, and programming for students interested in graduate school, research, and fellowship opportunities.


The Center provides a comprehensive and seamless approach to advising on decisions about career pathways and life after Manhattan College. We work closely with the Center for Career Development to provide a warm engaging space where students and alumni can explore their future. Students are encouraged to think about their options for after graduation, considering both graduate school as well as industry opportunities. We help students and alumni identify interests, develop realistic goals, gain relevant and necessary experience, overcome challenges, and make informed decisions. We are also focused helping students understand undergraduate research experience in the context of graduate school, fellowships, and career pathways. We will work with students to determine whether or not graduate school fits in with their own professional development plans.

## Applying for Fellowships

The Center for Graduate School and Fellowship Advisement is committed to helping students understand the very competitive process of applying to external, national and international fellowships. We have a faculty committee that reviews student applications for fellowships requiring an institutional nomination, and we work to educate students about different fellowship opportunities. We can provide guidance on exploring fellowships, preparing applications, developing research proposals and preparing for interviews. We can help students explore and identify potential fellowship opportunities that will help them meet their professional development goals.

## Preparation for Law School

The Center for Graduate School and Fellowship Advisement works closely with the Faculty Pre-law Advisor, the Center for Career Development, and Alumni Relations to provide advising, resources, and opportunities for students interested in pursuing law school. There is no single major here at Manhattan College that is a prerequisite for applying to law school. In addition, there is no pre-law major or minor. Students that do well in the application process have strong analytic and problem solving skills, critical reading skills, writing skills, communication skills, research skills, task management skills and a dedication to public service and promotion of justice, according to the American Bar Association. Students are also encouraged to join and actively participate in student groups.

## Pre-Health Advising and Preparation for Medicine and Dentistry

CGSFA works closely with the Health Professions Advisory Committee (HPAC), a body of faculty members, to give guidance and support to students interested in careers in medicine, dentistry and allied health fields. We are available to help students investigate their career options in healthcare, and to discuss curricula, activities, internships, research, and application procedures in the health professions. We support candidates through all aspects of the application process, and we work to provide opportunities to prepare students to be competitive applicants to health professions schools.

## Health Professions Advisory Committee

The Health Professions Advisory Committee is a group of faculty members who give guidance to students interested in preparing for careers in medicine, dentistry and allied fields. This committee helps students become aware of the course requirements and experiences essential for admission to professional schools. The committee advises students on the selection of programs of study that will give both background in the sciences and a broad liberal education to prepare them for effective participation in the human community.

The minimum required courses for admission to professional schools are:

BIOL 111 \& BIOL 112
BIOL 113
\& BIOL 114

CHEM 101
\& CHEM 102
CHEM 319
\& CHEM 320
CHEM 323
\& CHEM 324

PHYS 101
\& PHYS 102
or PHYS 107
\& PHYS 108

General Biology I 4
and General Biology II
General Biology Laboratory I 4 and General Biology
Laboratory II
General Chemistry I 8 and General Chemistry II
Organic Chemistry I 6 and Organic Chemistry II
Organic Chemistry 4
Laboratory I and Organic Chemistry
Laboratory II

| Physics I | 8 |
| :--- | :--- |
| and Physics II |  |
| Introductory Physics I |  |
| and Introductory Physics II |  |

Physics I
8 Introductory Physics I and Introductory Physics II

Specific schools may require or recommend other courses. Applicants are required to obtain 6-9 credits in English and 6 credits in Calculus I and Calculus II or Statistics. We strongly recommend foundation courses in Psychology, Sociology, and Biochemistry for students interested in pursuing a medical degree. Students should see an advisor for specific course recommendations.

## Pre-Health Minor

The Pre-Health Minor is recommended for students that wish to gain entrance to health professions schools, including medical school, dental school, veterinary school, optometry school, physician assistant programs and other health profession schools. While students are not required to be a part of the concentration in order to get a committee letter of evaluation from HPAC, students are strongly encouraged to consider enrollment in this concentration to be part of the competitive cohort that applies to health professions schools each year.

# Pre-Health Information 

Dr. Bruce Liby<br>Pre-Health Professions Advisor

The Minor in Pre-Health is designed to provide students with the necessary foundation for a career in the Health Professions. It is open to all undergraduate students in good academic standing. This designation will be on their official academic record as fulfillment of the requirements of the concentration. Students from any major and any School of the College may enter the Minor.

To matriculate in the Minor in Pre-Health Studies, a student must earn an overall average GPA of 3.0 in all courses with no more than two grades lower than a 3.0 in any of the Minor courses. Students must have completed or be currently enrolled in Science 105, Introduction to Pre-Health Studies. Any student who, at any time, fails to meet all requirements concurrently will be disenrolled from the Minor. To be in good standing in the Minor, students must take at least six credits in the Minor per academic year (including summer). Students who fail to do so will be disenrolled from the Minor but may reapply when this requirement is met. All pre-requisites and co-requisites of the below courses must be taken.

As the prerequisites for the various programs in the Health Professions can vary substantially, students may request, in advance, to substitute specific courses for some of the above requirements. Substitutions for any of the above courses will be considered on a case-by-case basis and must be approved in advance by the Pre-Health Advisor. Individual requirements may be waived by the Pre-Health Advisor in special cases. Students who have been dismissed from the Minor may re-apply. To be successful, such students must demonstrate a greatly improved academic performance or profound extenuating circumstances.

## Minor in Pre-Health Studies Requirements

All students enrolled in the Minor in Pre-Health Studies must take the following courses:
SCI $105 \quad$ Introduction to Pre-Health Studies 1
BIOL 111 General Biology I 4
BIOL 113 General Biology I Laboratory 0
BIOL 112 General Biology II 4
BIOL 114 General Biology II Laboratory 0
BIOL 217 Genetics 4
BIOL 218 Genetics - Lab 0
CHEM 101 General Chemistry I 3
CHEM 103 General Chemistry Laboratory I 1
CHEM 102 General Chemistry II 3
CHEM 104 General Chemistry Laboratory II 1
CHEM $319 \quad$ Organic Chemistry I 3
CHEM 323 Organic Chemistry Laboratory I 2
CHEM 320 Organic Chemistry II 3

| CHEM 324 | Organic Chemistry Laboratory II | 2 |
| :---: | :---: | :---: |
| CHEM 433 or BIOL 319 | Biochemistry I <br> Cellular BioChemistry/Physiology | 3 |
| $\begin{aligned} & \text { PHYS } 107 \\ & \text { or PHYS } 101 \end{aligned}$ | Introduction to Physics I Physics I | 4 |
| PHYS 197 or PHYS 191 | Introduction to Physics I Lab Physics I Lab | 0 |
| $\begin{aligned} & \text { PHYS } 108 \\ & \text { or PHYS } 102 \end{aligned}$ | Introduction to Physics II Physics II | 4 |
| PHYS 198 or PHYS 192 | Introduction to Physics II Lab Physics II Lab | 0 |
| MATH 155 or MATH 185 | Calculus for the Life Sciences I Calculus I | 3 |
| MATH 156 or MATH 186 | Calculus for the Life Sciences II Calculus II | 3 |

Total Credits
Students pursuing a career in Physical Therapy, Physician Assistant, and other selected fields may substitute Anatomy and Physiology for Organic Chemistry, with the approval of the Pre-Health Advisor. The substitutions would be as follows:

1. Anatomy and Physiology I (BIOL 207. Anatomy and Physiology I; BIOL 209.

Anatomy And Physiology Lab I) may replace Organic Chemistry I (CHEM 319. Organic Chemistry I; CHEM 323. Organic Chemistry Laboratory I).
2. Anatomy and Physiology II (BIOL 208. Anatomy and Physiology II; BIOL 210. Anatomy And Physiology Lab II) may replace Organic Chemistry II (CHEM 320. Organic Chemistry II; CHEM 324. Organic Chemistry Laboratory II).

The above substitutions are not appropriate for Post-Graduate study in the Medicine, Dentistry, Podiatry, Optometry, and Veterinary fields.

The following substitution does not require approval: MATH 230. Elementary Statistics or PSYC 214. Statistics and Research Methods I may replace MATH 156. Calculus II.

For additional information on Pre-Health programs at Manhattan College please go to the Center for Graduate School and Fellowship Advisement

## O'Malley Library

The Mary Alice \& Tom O'Malley Library supports the work of faculty and students through its collections, facilities, and services. The librarians are glad to help students with their work, both individually and through information literacy and research classes.

O'Malley Library has four computer labs with more than 100 computer workstations as well as conference rooms and a wide range of areas for individual and group study. An Internet Cafe is located outside the main library entrance.

The collections include 320,000 books and more than 42,000 current journals, including all the journals of the most prominent scholarly publishers: Elsevier, Oxford University Press, SAGE, Springer Nature, Taylor \& Francis, and Wiley. Through the library website, students on or off campus can access nearly 200 databases that provide access to journals, books, and reference materials. The resources of libraries worldwide are available through our interlibrary loan service, and a number of consortial arrangements provide access to university libraries throughout New York City and Westchester County.

The Library maintains the Manhattan College Archives as well as the De La Salle Christian Brothers Archives of the New York and Long Island-New England Districts, the District of Eastern North America, the Midwest District, the Christian Brothers Conference, and the Lasallian Research Collection.

For more information about library hours and services, please see https:// lib.manhattan.edu/home (https://lib.manhattan.edu/home/)

## Specialized Resource Center

The Specialized Resource Center (SRC) serves all students with a special need or disability. The SRC is a resource for students, faculty and the college at large. Use of services is voluntary, strictly confidential and without fee. The mission of the center is to ensure educational opportunity for all students with special needs by providing access to full participation in campus life. This is accomplished by assisting students in arranging individualized support services. A sampling of auxiliary aids and/or academic adjustments offered by the SRC for students providing appropriate documentation based on their individual needs for no fee include: priority seating; alternative testing environments; readers, note takers and scribes; access to adaptive technology and liaison with faculty and other college departments. The SRC is located on the 3rd floor in Thomas Hall.

## Study Abroad Opportunities

Manhattan College encourages students to enhance their education through Study Abroad programs. In order to participate, a student must normally have a minimum cumulative grade point index of 2.75 . Students generally enroll in a semester abroad either in their sophomore or junior year, and occasionally in the first semester of senior year. Study Abroad for the second semester of senior year is discouraged as it may interfere with graduating on time.

The College sponsors its own full-semester programs and exchange opportunities in a variety of countries around the world, including through the global Lasallian network of colleges and universities. Various short-term, faculty led programs are also available during January intersession and the summer sessions. Participation in all foreign study programs must be approved by the Assistant Dean of the School in which the student is enrolled, in consultation with the Director of Study Abroad. Further information is available through the Office of Study Abroad.

## Opportunity Programs Mission Statement

Manhattan College offers three distinct Opportunity Programs. These programs are integral to our Lasallian mission to support students entering higher education from underserved, underrepresented, or underprepared backgrounds. Through the tailored services and dedicated support that Opportunity Programs provides, students are empowered to learn, develop themselves, and achieve academic excellence.

## Introduction

Two programs, the Collegiate Science and Technology (CSTEP) and the Higher Education Opportunity Program (HEOP), are partnerships with the New York State Education Department (NYSED); they are open to New York state residents who meet certain eligibility criteria. The third program, Success @ Manhattan (S@M) is internally funded by Manhattan College.

Manhattan College Opportunity Programs aims to provide students with access, personalized success services, and help with individualized graduation plans. In addition to the academic advisors students meet through their academic schools, Opportunity Programs participants will benefit from a dedicated secondary advisor, a six-week prefreshman summer program, and access to increased tutoring, mentoring and academic coaching.

## Collegiate Science \& Technology Entry Program (CSTEP)

CSTEP is facilitated at institutions across New York state, with the goal of increasing the number of historically underrepresented students pursuing careers in the STEM fields or licensed professions. CSTEP students are encouraged to attend the pre-freshman summer program to successfully prepare them for the STEM majors they are pursuing. Over the course of the four years, students will work with their program advisors to tailor their academic and postgraduate plans to meet their educational and career goals.

## The Arthur O. Eve Higher Education Opportunity Program (HEOP)

HEOP at Manhattan College engages students who exhibit the potential for academic success, but come from academically underprepared backgrounds and have a demonstrated financial need (as set by New York state). With the extra academic services and the supplementary financial assistance, students have the opportunity to reach their full potential within their chosen degrees.

Students will apply through the Manhattan College Admissions Office. After the initial review, applicants who meet the academic criteria for HEOP will be shared with Manhattan College Opportunity Programs for further screening. HEOP students must successfully complete the prefreshman summer program and participate in supplemental programming throughout the academic year.

Students wishing to transfer into HEOP at Manhattan College from another institution should highlight this on their application form. Eligible programs of transfer include HEOP, EOP, College Discovery, and SEEK.

## Success @ Manhattan (S@M)

The S@M program supports and guides students who may not meet the criteria for regular admission, but demonstrate a high-level of potential to perform academically as an undergraduate student with the appropriate support. S@M students should attend and successfully complete the prefreshman summer program.

Similar to HEOP, students will apply through the Manhattan College Admissions Office. Eligible applications will be processed through the Opportunity Programs Office for further review. S@M students are strongly encouraged to participate in all supplementary Opportunity Programs programming.

## Prefreshman Summer Program

Students who attend the six-week summer program take one writing course, a mathematics course, and a third course that is tailored to their major. Over the course of the program, incoming students develop their study habits, hone their academic skills, and develop their confidence. By successfully completing the summer program, participants are well prepared to begin their first year of studies, can secure Manhattan College credits, and advance through some mathematics courses.

## Administrative Officers \& Staff The President's Office

Milo Riverso, Ph.D., P.E., President (2023-)

Br. Daniel Gardner, F.S.C., M.A., Executive Director of Campus Ministry \& Social Action (2022-)

Barbara Herlihy, B.S., Executive Assistant, President's Office (2011-)
James G. Ryan, J.D., Vice President and General Counsel (2022-)
Jamie Walsh, B.S., Executive Assistant to the Vice President and General Counsel (2011-)

Goldie Adele, J.D., Chief Compliance Officer (2021-)
Erika J. Pichardo, Ph.D., Title IX Coordinator (2022-)

## Academic Affairs

Rani Roy, Ph.D., Interim Provost (2012-)
Kelly Marin, Ph.D., Interim Associate Provost (2007-)
William C. Clyde, Ph.D., Special Advisor (2010-)
Anne Morrison, M.A., Executive Assistant to Provost (2002-)
Carlos Tonche, Jr., J.D., Registrar (2018-)
Carla Fraser, B.S., Associate Registrar (1999-)
Justin Dalbo, M.A. Scheduling Administrator (2021-)
Thomas Kirnbauer, Ph.D., Executive Director of Institutional Research, Planning, \&
Assessment (2022-)
Edward Dee, Ph.D., Director of Assessment, (2020-)
Brendan Considine, M.P.A., Director of Grants Administration (2019-)
Cory Blad, Ph.D., Dean of School of Arts (2021-)
Dianna H. Cruz, M.A., Senior, Asst. Dean and Academic Advisor for the School of Arts (2002-)

Angie Thrapsimis, M.A., Academic Advisor for School of Arts (2007-)
Marcy A. Kelly., Ph.D., Dean School of Science (2022-)
Michelle Deale., M.S., Assistant Dean School of Science (2022-)
Kelly Daggett, Ph.D., Director of Chemistry Labs, (2012-)
Donald Gibson, Ph.D., Dean of O'Malley School of Business (2018-)
Rhonda Shuler, B.A., Senior Academic Advisor for O'Malley School of Business (2002-)

Aileen Farrelly, M.S., C.P.A., Assistant Dean and Academic Advisor for O'Malley School
of Business (2011-)
Richard Ross, M.B.A., Director of External Graduate Programs for O'Malley School of Business (2019-)

Anirban De, Ph.D., P.E., Interim Dean School of Engineering (2008-)
Erica Reubel, M.B.A., Assistant Dean School of Engineering (2003-)
Charmaine Whitter-White, M.S., Academic Advisor for the School of Engineering (2005-)
Joseph Berger, Supervisor for Technical Computer Support Group for the School of Engineering (1980-)

Shelley Johnson, Ed.D., MSN., Dean of the School of Health Professions (2023-)
Loretta Wilkins, M.A., Assistant Dean for the School of Health Professions (1998-)
William H. Walters, Ph.D., Executive Director for the O'Malley Library (2014-)
Sarah Sheehan, M.S.L.S., M.Ed., Director for the O'Malley Library for Reference and Instruction (2016-)

Susanne Markgren, M.F.A., M.L.I.S, Director of Operations for the O'Malley Library, Technical Services (2016-)

Laurin Paradise, M.L.I.S., Reference and Instruction Librarian for the O'Malley Library (2017-)

Brendon Ford, Interlibrary Loan Manager and Systems Specialist for the O'Malley Library (2004-)

Amy Surak, M.A., Director for Archives and Special Collections (2002-)
Kimberly Jones Woodruff, M.S., Director for Instructional Design (2011-)
Blair Goodlin, Jr., Ph.D., Instructional Designer (2015-)
Rosemary Osso, M.S., Senior, Assistant Dean for the School of Continuing and Professional. Studies (2013-)

Kimberly Gargiulo, M.A., Quality Assurance Manager for the School of Continuing and Professional Studies (2019-)

Sharon Munoz, M.A., Director for the Camino English Language Program for the School of Continuing and Professional Studies (2022-)

Angela Oliveira, M.P.A., Program Director for Radiation Therapy Technology for the School of Continuing and Professional Studies (2022-)

Heidy Palacios, B.S., Program Director for Nuclear Medicine Technology for the School of Continuing and Professional Studies (2022-)

Joseph Ruggiero. B.A., Producer/Director for Communication (2019-)
Alexandra DeStefano, B.A., Assistant Director, Study Abroad Exchange Partnership (2020-)

Edgar Zavala, Ed.D., Director for Non-Credit Programs (2018-)
Mia Cardenas, M. Ed., Assistant Director of Non- Credit Programs \& APSI Coordinator (2022-)

Marisa Sarlo-Passafiume, M.S. Ed., Assistant Vice President for the Center for Academic Success (2011-)

Sarah Glessner, M.A., Director for the Center for Academic Success (2021-)
Andrew Burns, M.Sc., Director of Opportunity Programs (CSTEP \& HEOP) (2017-)
Elena M. Caminito, M.A., Associate Director for the Higher Education Opportunity Program / Operating (1989-)

Kelly Katsigris, M.S., Success @ Manhattan Assistant Director (2022-)
Costin Thampitkutty, M.A., Assistant Director CSTEP (2022-)
Paulett Esteban, B.A., CSTEP Manager (2022-)
Gabriel Bautista, B.B.A., CSTEP / HEOP Program Manager (2023-)
Jason Maloney, M.S., Assistant Director- Retention for the Center for Academic Success (2022-)

Katherine Torode, M.S., Assistant Director Student-Athlete Advisement for the Center for Academic Success (2020-)

Raven Cordner, B.A., Student Athlete-Advisor for the Center for Academic Success (2022-)

Daniel Bormes, M.F.A., Academic Support Manager (2022-)
Anne Vaccaro, M.S., Director for Learning Disability Services (1992-)
Juanita Pacheco, B.S., Assistant Director- Accommodations for Academic Services (2017-)

## Information Technology

Robert Moran, B.S., Interim Chief Information Officer (2001-)
Kevin Clancy, M.B.A., Deputy Chief Information Officer (2014-)
Melvin Lasky, M.S., Associate Director for Enterprise Architecture (2011-)
Jason Caban, M.S., Associate Director for Enterprise Applications (2001-)
John McCabe, B.S., Senior Security Manager \& Data Protection Officer (2012-)
Richard Musal, M.A., Director for Client Services (2003-)
Yony Fernandez, B.A., Director of Web Applications, Collaboration (2017-)
Eileen McIntyre, M.B.A., Helpdesk Manager (1987-)
Susanne Leavey, B.S., Information Technology Services Training Manager (2020-)

Kwasi Bodkin, M.S., IT Support Specialist of Client Service Operations (2019-)
Ian Healy, B.S., System Network Engineer (2022-)
Wyatt Madej, B.S., System Administrator/Desktop (2020-)
Magdalen Michalczyk, M.S., System Administrator (2017-)
Tiffany French, M. A., Senior Programmer/Analyst (2014-)
Jazmine Matthews, M.S., Programmer Analyst (2020-)
Alberto De Angelis, M.S., Jr. Database Administrator (2020-)
Cristian Simoni, B.S., IT Programmer/Analyst I (2023-)
Theresa McDonough, ITS Operations Manager ( 2015-)

## Enrollment Management

Kevin Cavanagh, M.B.A., Vice President for Enrollment Management (2023-)
Melissa Booth, M.B.A., Assistant Vice President for Enrollment Management (2022-)
Benjamin Boivin, M.B.A., Director of Admissions (2022-)
Robert Rahni, M.S. ABD, Director of Transfers and Veteran Admissions (2021-)
Evelyn Orellana, B.A., Associate Director for Admissions (2016-)
Nicholas Marter, M.A., Associate Director for Admissions (2018-)
Anissa Latif, M.A., Assistant Director for Admissions (2022-)
Christopher Fonte, M.B.A., Assistant Director for Admissions (2022-)
Brad R. Allison, M.Ed., Assistant Director for Graduate Admissions (2023-)
Fatima Reda, B.S., Assistant Director for Enrollment Management (2014-)
Jose De La Cruz, B.S., Admissions Counselor (2021-)
Angely Morillo, B.S., Admissions Counselor (2022-)
Elena Kreatsoulas, B.A., Transfer Admissions Counselor (2022-)

## Student Life

Ronald A. Gray, Ph.D., Vice President for Student Life (2022-) Jamie McGuinniss, Executive Assistant to the Vice President for Student Life (2019-)
A.J. Goodman, M.S., Associate Dean of Students (2013-)

Hayden Greene, M.A., Director for Multi-Cultural Affairs (2016-)
Jahangir Ahmed, M.P.A., Dir. for Fitness, Wellness \& Recreation (2018-)
Marilyn Carter, M.S., Director for Commuter Services and Outreach (1988-)
Jessica Aviles, M.S., Director for Event Services, (2014-)

Andrew Goodman, B.A., Director for Campus Events (1990-)
Matthew Lewis, M.S., Director of Residence Life (2023-)
William Atkinson, M.Ed., M.B.A., Assistant Director for Housing Operations (2015-)
Toni Baisden, M.A., Assistant Director for Residence Life/DEI Coordinator (2014-)
Francis McLoughlin, M. Ed., Area Coordinator (2022-)
Laura Mojica, M.B.A., Area Coordinator (2022-)
Jonathan Goldenberg, M.A., Area Coordinator (2023-)
John Bennett, M.A., Assistant Vice President/Student Engagement (2009-)
Michael Steele, M.B.A., Assistant Director for Student Engagement, (2010-)
Sharon Jimenez, M.B.A., Manager for Student Engagement (2013-)
Andrew Bauer, M.A., Director for Performing Arts, (2012-)
Rachel Cirelli, M.Ed., Director for Career Development (2014-)
Megan McShane, M.A., Associate Director for Career Development (2022-)
Leony Anne McKeown B.A., Assistant Director for Employer Relations (2022-)
Kathleen Gomez, M.A., STEM Career Counselor (2023-)
Br. Ralph Bucci, F.S.C., Recruitment Coordinator (2018-)
Jennifer McArdle, M.A., Director for Counseling/Health Services (2000-)
Christin Nedumchira, Psy.D., Staff Psychologist for Counseling/Health Services ( 2013-)
Briana Azzarelli, L.M.S.W., Staff Counselor for Counseling/Health Services (2019-)
Nicol Zambrano, M.A., Staff Counselor (2017-)
Susan Conte, Ph.D., Alcohol \& Other Drug Counseling (2023-)
Carl Franzetti, M.D., College Physician (2003-)
Anne Mavor, M.S.N., Director for Health of Health Services (2018-)
Carolyn McKay, M.S.N., Nurse Practitioner, (2019-)
Giankarlo Guirao, B.B.A., L.P.N., College Nurse, (2022-)
Michele Reyes, B.S., Assistant Director for Health Services (2008-)
Conor Reidy, M.P.A., Assistant Director, Campus Ministry (2013-)
Jacqueline Martin M.S., Assistant Director of Community Engagement \&
Partnerships Campus Ministry \& Social Action (2018-)
Peter DeCaro, B.S., Director for Public Safety (2016- )
David Erosa, M.S., Associate Director for Public Safety (2008-)
Anthony Paliotta, B.S., Assistant Director of Operations for Public Safety (2020-)

Charles Lippolis, M.S., Manager for One Card Office \& Special Projects (2011-)
Irma Garcia, M.S., Director for Intercollegiate Athletics (2023-)
Denise Thompson, M.Ed., Senior Associate Athletic Director / External Operations and Senior Woman Administrator (2022-)
Matthew Raidbard, Ed.D., Associate Director/Compliance (2022- )
Thomas O'Brien, M.S. Associate Director for Athletics/Director for Sports Medicine and Athletic Performance (2021-)

Toni-Anne Lawrence, M.S. Associate Athletic Trainer (2022-)
Peter Ferretti, M.S., Assistant Athletic Trainer (2002-)
Stephanie Carpiniello, B.S., Assistant Athletic Trainer (2023-)
Brianna Scapperotti, M.B.S., Assistant Director, Athletic Facilities \& Events (2022-)
Cooper Hayes, B.S., Assistant Director of Sports Communication, Digital \& New Media (2022-)

## Business and Finance

Anne Marie Colon, Executive Assistant to the Vice Presidents for Finance \& Facilities (2013-)

Lisa Juncaj, M.S., Executive Director for Business Systems (1995-)
Christina Cardinale, M.S., Senior Associate Director Student Accounts \& Bursar Services (2001-)

Nancy D. Hesselbacher, M.B.A., Student Account Analyst (2011-)
Debra McGuinness, B.S., Student Accounts Manager \& Bursar Services (2013-)
Denise Scalzo, Ph.D., Executive Director for Financial Aid (2015-)
Adeline J. Newman, B.S., Senior Associate Director for Financial Aid Administration (2017-)
Werner Haberman, B.A., Senior Assistant Director/Financial Aid Operations (2017-)
Allyson Fucci, M.S., Sr. Associate Director, Institutional Aid (2014-)
Deanna Cruz, M.B.A., Senior Assistant Director/Pell Coordinator (2012-)
Anthony Rooney, M.P.A., Assistant Director of Student Employment (2022-)
Carol Bisono, B.S., Financial Aid Counselor / TAP Certifying Officer (2015-)
Patrick Adamo, B.S., Data Analyst (2022-)
Dennis Lonergan, B.B.A., Assistant Vice President for Finance \& Controller (2006-)
Joseph Pelio, M.B.A., Associate Controller (2022-)
Catherine DeLoughry, B.S., Director of Budget and Investment (2014-)

Marian O'Connor, M.S., Grants Accountant (2012-)
Bruce Fox, B.B.A., Accountant (2022-)
Suzana Kumbullaj, M.S., Accountant (2023-)
Eileen Duarte, B.B.A, Assistant Controller, Payroll Operations Mgr. (2010-)
Joanne Gans, B.A., Payroll Manager (1998-)
Kristine Ianniello, Assistant Payroll Manager (2019-)
Kenneth Waldhof, B.S., Executive Director for Business \& Conference Services (2013-)
Michele Famularo, B.P.S., Director for Business for Business \& Conference Services (2014-)

Nicole Miller, B.S., Purchasing Manager (2020-)
Rosemary Jimenez, Telecommunications Coordinator (1989-)
Edward Fernandez, Manager for Mailroom and Receiving (1995-)

## Human Resources

Barbara A. Fabé, B.A., Special Advisor (1988-)
Vicki M. Cowan, M.A., PHR, Interim Vice President for Human Resources and Affirmative Action Officer (1989-)

Eileen Armstrong, Executive Director for Benefits \& Compensation (2005-)
Rose M. Doyle, B.B.A., Human Resources Manager (2017-)

## Facilities Management

Craig Collins, B.S., Vice President for Facilities and Capital Projects (2022-)
Gregory Cowart, M.S., Director for Capital Projects (2012-)

## College Advancement

Thomas Mauriello, M.S., Vice President for College Advancement (2006-)
Pauline Spitzer, Executive Assistant to the Vice President for College Advancement (2022-)
Stephen White, M.S., Assistant Vice President for Advancement (2007-)
Elizabeth Plaushin, J.D., Director for Planned Giving (2019-)
Michele Galioto, B.A., Director of Major Gifts (2022-)
Nicholas Lakoumentas, M.B.A., Manager for Prospect Research (2013-)
Debra Reich, M.B.A., Director of Annual Giving (2022-)
Kristen Farrell, M.A., Director for Institutional Giving \& Special Programs (2018-)

Claudia Cardona, B.A., Assistant Director for Advancement Series (2015-)
Barry Moskowitz, M.A., Development Writer (2018-)
Kevin Courtney, B.A., Director for Capital Campaign (2016-)
Frederick Lash, M.A., Major Gifts Officer (2017-)
Dale Montagna, M.B.A., Major Gifts Officer (2022-)
Louis Calvelli, M.S., Director for Alumni Relations (2017-)
Nicholas Sedia, B.A., Assistant Director for Alumni Relations (2022-)
Stephanie Riggi, M.S., Alumni Relations Coordinator (2022-)
Lydia E. Gray, M.A., Assistant Vice President for College Advancement, Executive Director, Marketing and Communications (1980-)

Kristen Cuppek, M.A., Director for Publications and Editorial Services (2002-)
Tiffany Dugan, M.S., Director for Special Events \& Commencement (2022-)
Gail A. Conklin, Events Manager for Special Events and Commencement (1993-)
Tracy Turner, B.A., Senior Graphic Designer (2020-)
David Koeppel, M.A., Director of Media Relations \& Strategic Communications (2022-)
Griffin Price, B.S., Director for Web Communications (2023-)
Melissa Battaglia M.B.A., Assistant Director for Web Communications (2022-)
Cecilia Donohoe, M.A., Assistant Director for Editorial Services (2019-)
Christine Zeiger, B.S., Web Strategy Specialist (2017-)
Ryan Werner, M.A., Digital Media Producer (2022-)
Dates in parentheses indicate years of service in the College and not necessarily appointment to the current position.

## Admissions

An application for admission to Manhattan College may be submitted using the Common Application (https://www.commonapp.org/) or a Manhattan College Application (https:// manhattan.edu/admissions/undergraduate/apply.php), which can be found on the College's website. An application fee of $\$ 75$ is required. In some cases, a student may be financially eligible for a fee waiver from the College Board or NACAC, issued by their high school counselor.

## Freshman Admissions

## Course Selection and Performance

In reviewing applications for admission, the following items are considered by the Committee on Admissions.

Most emphasis is placed upon student course selection on the secondary level and grades earned in those subjects.

All applicants must have completed a minimum of 16 units in academic subjects which should include the following

| Subject | Required Units | Recommended Units |
| :--- | :--- | :--- |
| English | 4 | 4 |
| Modern or Classical | 2 | 3 |
| Language | 2 | 4 |
| Science (Lab Sciences) | 3 | 4 |
| Mathematics* | 3 | 4 |
| Social Studies | 2 |  |

At the discretion of the Committee on Admissions, quantitative requirements may be modified for applicants with strong records who show promise of doing well in college work.

* This includes algebra, geometry, intermediate algebra/trigonometry (sequence I, II and III).


## SAT and/or ACT Scores

The Committee on Admissions strongly encourages all U.S. applicants for freshman admission to submit SAT or ACT scores. The Committee on Admissions piloted a testoptional policy beginning in fall 2021 to eliminate some of the challenges students have faced due to COVID-19. Students applying for the fall 2023 semester will choose whether or not to submit their SAT/ACT test scores. If a student does submit their test score, only a student's highest scores will be considered for admission and scholarship eligibility. While these scores are an important part of an application, they are considered in combination with other requirements. SAT or ACT scores allow the Committee to see how well applicants do in areas fundamental to predicting college readiness, using a third-
party tool that is not influenced by local grading practices. In that regard, they are helpful. However, we are aware that tests have limitations, and place higher emphasis on high school curriculum and grade point average.

## Recommendations

Grades and examination scores alone do not adequately evaluate a student's ability to be successful in college. Therefore, appropriate character references are considered important when reviewing candidates for admission. One letter of recommendation from a teacher or guidance counselor is required. Applicants may submit up to three academic letters. Students are also permitted to submit an additional character reference.

## Essay or Personal Statement

Applicants must submit a brief personal statement or college essay, using either the Manhattan College essay topic or one of the Common Application essay topics listed below:

1. Some students have a background, identity, interest, or talent that is so meaningful they believe their application would be incomplete without it. If this sounds like you, then please share your story.
2. The lessons we take from failure can be fundamental to later success. Recount an incident or time when you experienced failure. How did it affect you, and what did you learn from the experience?
3. Reflect on a time when you challenged a belief or idea. What prompted you to act? Would you make the same decision again?
4. Describe a problem you've solved or a problem you'd like to solve. It can be an intellectual challenge, a research query, an ethical dilemma - anything that is of personal importance, no matter the scale. Explain its significance to you and what steps you took or could be taken to identify a solution.
5. Discuss an accomplishment or event, formal or informal, that marked your transition from childhood to adulthood within your culture, community, or family.

This essay should be no longer than 650 words.

## The General Equivalency Diploma (G.E.D.)

The G.E.D. is accepted in lieu of a high school diploma for admission to some programs of the College. Please note that the Committee on Admissions requires students to submit a record of any high school coursework taken, even if a student is submitting G.E.D. scores.

## Committee on Admissions

In rare instances, the Committee on Admissions will consider waiving the above requirements for admission. Please contact the Office of Admissions for further information.

## Campus Visit

A visit to the Manhattan campus is strongly recommended to all prospective students. Information sessions and campus tours are offered throughout the year. Students may register by calling the Admissions Office at 718-862-7200 or visiting our Campus Visit page here (https://manhattan.edu/admissions/visit/). In the fall, additional information sessions are offered on Saturday mornings. In addition, students are welcome to arrange appointments outside of these times by coordinating their visit with the Office of Admission by calling 718-862-7200 or emailing admit@manhattan.edu.
Interviews are recommended, but not required, as part of the admissions process. Students may arrange to have an interview with a member of the admissions staff by contacting the Office of Admission in advance to set up an appointment. Students are encouraged to submit an application before setting up an interview.

## Early Decision

For those students who consider Manhattan College their top choice, the Early Decision Program affords them the opportunity to apply and receive a decision earlier in the admissions cycle. The Early Decision Program is binding; if a student is accepted under this program, they must agree to confirm plans to enroll at Manhattan College and withdraw all applications for admission to other institutions.

Students who wish to be considered for the Early Decision Program must complete a Manhattan College Early Decision Agreement form, which is signed by the student, parent and school counselor. Students must also submit a completed application for admission and all supporting documents to the College by November 15. Students will be notified of a decision by mid-December.

If the Admissions Committee determines that they need to evaluate updated academic information in order to make an enrollment decision, a student's application would be rolled over into the regular decision pool, at which point the student would be released from the binding agreement.

## Scholarship Applicants

All applicants will be considered automatically for merit-based scholarships.

## Admissions Process

Manhattan will consider for admission any qualified student upon completion of the junior year. Students must present required academic credentials and qualifications for admission. It is important to note that students must continue to demonstrate progress at the same academic level in their senior year and that all secondary school graduation
requirements must be met, and a diploma issued, in order to enroll. Students must submit an official final transcript with a graduation date in order to matriculate at the College.

## Notification of Admission

Applications will be reviewed on a rolling admission basis. When a student has filed a completed application (high school transcript, test scores, college essay and recommendations) with the Office of Admissions, the Committee will act upon it. Students will be notified of their admissions decision via mail. In many cases, before a decision is made, students will be asked to submit copies of their senior grades in January. All acceptances are contingent upon the successful completion of senior year of high school and proof of graduation.

## College Credit

Students completing college-level work completed in high school may be awarded transfer credit. Students must submit an official, seal-bearing transcript from an accredited college/university demonstrating satisfactory achievement. In some cases students may be asked to submit a catalogue description and syllabus for courses in order to determine the appropriateness of the coursework as it relates to the students intended program of study.

Each transcript should be sent to the Office of Admissions and will be considered by the Academic Dean and/or Academic Advisor in the School the student has been accepted into.

A student's assigned Assistant Dean and/or Academic Advisor will work with students receiving college credits from high school to make any changes necessary in their programs of study.

## Advanced Placement

Advanced Placement Examinations given by the College Entrance Examination Board may be considered for Manhattan College credit. Official scores from these exams should be sent to the Office of Admissions as soon as they become available. Credit may be awarded for an exam score of four or five at the discretion of the Dean of the school the student has been accepted into.

A student's assigned Assistant Dean and/or Academic Advisor will work with students receiving advanced placement credits to make any changes necessary in their programs of study.

## College Proficiency Examination Program (CPEP)

Manhattan College is a participant in the New York State College Proficiency Examination Program (CPEP) and subscribes to its policy of credit by examination regardless of the individual's background or formal preparation. For further information, contact:

CPE Program
Cultural Education Center
Albany, New York 12230

## College Level Examination Program (CLEP)

Newly matriculated students may apply for CLEP credit for examinations taken prior to matriculation. Students enrolled in the college will not be given credit for CLEP tests. The minimum CLEP score for credit will be 50. A higher minimum score for "level 2" credit for foreign languages will be required. The college will follow the American Council on Education (ACE) guidelines for awarding credit. Individual departments should examine the minimum score and number of credits for CLEP examinations. For further information, contact:

College Board
P.O. Box 6600

Princeton, NJ 08541

## International Baccalaureate

Manhattan College welcomes applicants with International Baccalaureate credits or the International Baccalaureate diploma. Manhattan will grant credit for higher-level examination scores of 5,6 or 7 if the examination is in an appropriate academic area. The Dean of each school will make the decision on appropriate academic level in consultation with individual departments.

## Student Status

Qualified persons may be admitted to either matriculated or non-matriculated status.

1. Matriculated Students: students who have completed the equivalent of a regular college preparatory program in high school or beyond and meet the normal entrance requirements of the program for which they have applied. They are considered to be candidates for a Manhattan College degree in the program for which they are enrolled at the college. In order to be matriculated, applicants must present to the Office of Admissions an application for admission with all supporting documents to indicate that they are qualified for matriculation to the college. Only the Office of Admissions can allow applicants to matriculate.

Course load description (in terms of credits) a student is taking during a given semester:

## Undergraduate:

1. Less than half time: $1-5$ credits
2. Half time: 6-8 credits
3. $3 / 4$ time: $9-11$ credits
4. Full time: 12-or above
5. Non-matriculated Students: students who are academically qualified persons following one or more regular courses without the intention of earning a degree at Manhattan College. Applicants wishing to enroll as non-matriculated students must apply to the Office of Admissions and present evidence that meets requirements for admission. In exceptional circumstances, the Committee on Admissions may invite a candidate who does not qualify for matriculated status to enter the college as a non-matriculated student for a limited period of time. The student must, in turn, demonstrate adequate preparation and motivation to pursue the program of studies for which they have
applied. Non-matriculated students may not pursue more than 9 credits at Manhattan College. The student's program will be prescribed by the Dean of the school in which the student will be registered. Qualified non-matriculated students who wish to pursue more than 9 credits* at Manhattan must apply formally to the Admissions Office for matriculation.

With the recommendation of the Dean or Provost, non matriculating students may receive permission to register for more than 9 credits of coursework. In such cases however, permission must be granted in writing from the Office of Admissions.

Non-matriculated students may fall into either one of the following categories:

1. Non-degree Students: students who are matriculated at another institution and wish to follow a course or courses for credit at Manhattan College. All such students must present to the Office of Admissions an academic transcript noting good standing.
2. Auditors: non-matriculated students may audit one or more course with the clear understanding that no college credit will be earned. All persons must apply to the Office of Admissions and present evidence that they are qualified to follow the courses which they request.

## International Students

An international student is categorized as a foreign-born person who is not a citizen, national, or permanent resident of the United States, nor individuals who have been granted asylum or refugee status. Applicants who have applied for residency or citizenship must provide all application materials necessary to be considered for international admission until residency or citizenship has been granted. Students who are currently granted classification as Deferred Action for Childhood Arrivals (DACA) and students who currently reside in the United States on expired visas (undocumented students) are not considered as international students.

Persons in F-2 status may apply for admission to the College as non-degree or degreeseeking students. An F-2 dependent may study part-time in any approved program at an SEVP-certified school. An F-2 dependent is a spouse or minor child of the F-1 student who meets all of the following conditions:

- Has been issued a Form I-20, "Certificate of Eligibility for Non-immigrant Student Status";
- Holds F-2 immigration status; and
- Has been admitted to the United States in F-2 status or applied for and been granted a change of status to F-2 in the United States by U.S. Citizenship and Immigration Services (USCIS).

An F-2 dependent may enroll in a combination of online and in-person classes that is less than a full course of study as defined by regulations. At Manhattan College, full-time undergraduate equivalency is 12 credit hours or more per semester. Full-time graduate enrollment is 9 credit hours or more per semester.

## International Freshman Admissions

International applicants are reviewed on a case-by-case basis. Applicants must complete a full sequence of university-preparatory studies that would qualify for admission to postsecondary studies in their home country. In general, students who present a minimum 2.5 cumulative grade point average from university preparatory studies are considered for admission. This requirement is equivalent to the twelve-year program of elementary, middle, and high school in the United States.

## International Transfer Students

Manhattan College welcomes international students with academic credit from other institutions. In general, students who present a minimum 2.5 cumulative grade point average from previous university-level coursework are considered for admission. University-level coursework completed at approved, accredited international institutions will be considered for transfer credit on a course-by-course basis. Academic performance at international institutions will be converted to a 4.0 scale for U.S. equivalency.

## Application Requirements for International Students

1. Complete the online international student application for admission. The $\$ 75$ application fee is required.
2. Submit secondary (high school) records or national exams if applicable:
a. Transcript(s) of courses with grades/marks; (Evaluated and translated, when applicable, by a NACES approved agency.)
b. Students with British system O-level examinations must present a minimum of 5 passes with credit.
c. To meet admission deadlines, students who apply before completing the final term of secondary school will be admitted contingent upon satisfactory completion of secondary school. After completion of secondary school, documentation of graduation and/or completion of official examination results are required.

- Proof of English Proficiency (Submit one of the following):
a. IBT TOEFL of 80 or higher;
b. IELTS score of 6.5 or higher;
c. SAT score of 500 or higher in Verbal;
d. Successful completion of English Composition I and/or II courses at a US regionally accredited college or university
e. Duolingo English test of 105 or higher;
f. Successful completion of International Baccalaureate Diploma;
e. Successful completion of level 112 or higher at an accredited ELS English Language Center;
g. Successful completion of the IELP Level 6.


## Conditional Admission

Students are eligible for conditional admission if they have completed and submitted all required admission materials with the exception of required proof of English proficiency.

## International Student Visa Requirements

To receive the I-20 form international applicants must submit the following documents:

- Official bank documents to provide evidence of adequate financial support (in U.S. dollars) for one year of study at Manhattan College
- Certificate of Financial Responsibility
- Copy of valid passport
- Complete a Transfer Recommendation Form and furnish a copy of a valid visa and I-20 from the last school attended in transferring to Manhattan College from an institution in the U.S.


## Transfer Admission

All of the below credentials must be on file in the Admissions Office before an application is reviewed for admission. With the information provided, the Committee on Admissions will make a preliminary evaluation of a student's record.

Students transferring to Manhattan are generally expected to have a minimum 2.50 cumulative average at the institution where they are currently enrolled. Admissions standards will vary depending upon the space availability in the specific program. The applicant will be notified of their acceptance or rejection. All acceptances for students who have work in progress at another college or university are conditional upon successful completion of work in progress with a minimum index of 2.50.

1. Official final high school transcript
2. Official college transcript(s) from all colleges/universities attended
3. Applicants must submit a brief personal statement or college essay
4. One letter of recommendation (may be waived on a case-by-case basis if academic performance is exceptional)
5. SAT and/or ACT Score Report is optional
6. (If Applicable) A.P. and/or I.B Score Report

## Additional Requirements

## Transfer Applicants to the Department of Radiological and Health Professions

After an initial academic review, applicants to the Nuclear Medicine Technology and Radiation Therapy Technology program may be required to interview with the program director for their area of interest. Space is limited in these programs and students are encouraged to apply prior to May $1^{\text {st }}$ for the fall semester (and before Nov. $15^{\text {th }}$ for the spring term).

## Transfer Credit Policy

Within a few weeks of receiving an acceptance decision, students will also be informed of the number of transfer credits granted. Credit will be granted only for specific work when completed at accredited institutions whose quality and course content have been approved by the college. Ordinarily, transfer students must earn fifty percent (50\%) of
the credit necessary for graduation at Manhattan College. This will normally take four semesters of study in-residence. "P" grades may be accepted for credit but only if they represent a "C" or better as defined by the regulations of the institution of origin. Grades earned at other institutions will not be transferred to the student's record at Manhattan College. Additionally, there shall be no grades entered in the student's record for A.P., CLEP or I.B. credits.

## Transfer Scholarship Opportunities

All accepted transfer students will be considered for academic merit-based scholarships during the application evaluation process. Qualified students will receive a scholarship notification letter in the mail within a few weeks of receiving their initial acceptance decision.

Transfer students who receive one of our Presidential, Founder's, Dean's or Chancellor's Awards have demonstrated exemplary scores with college level course work. Phi Theta Kappa (PTK) members are eligible to receive an additional scholarship. To be eligible for renewal of their merit scholarship, recipients must maintain a minimum grade point average of 3.0 while in attendance at Manhattan College.

## Certificate Program Admission: Radiological and Health Professions

## (Nuclear Medicine Technology and Radiation Therapy Technology)

All of the below credentials must be on file in the Admissions Office before an application is reviewed for admission. With the information provided, the Committee on Admissions will make a preliminary evaluation of a student's record. Space is limited in these programs and students are encouraged to apply prior to May $1^{\text {st }}$ for the fall semester (and before Nov. $15^{\text {th }}$ for the spring term).

Generally, students entering one of the certificate programs are expected to have a minimum 2.50 cumulative average at the completion of their undergraduate degree program. Admission standards will vary depending upon the space availability in the specific program. The applicant will be notified by mail of their acceptance or rejection. All acceptances for students who have work in progress at another college or university are conditional upon successful completion of work in progress with a minimum index of 2.50.

1. Official college transcript(s) from all colleges/universities attended
2. A list of courses presently being taken (if applicable)
3. 350-500 Word Statement of Interest - Explain short- and long-term career goals
4. Resume
5. Interview with the Program Director
6. A $\$ 75$ application fee is required
7. 8 -hour Job Shadowing and 1-2 page reflection page

Credit Policy

Credit will be granted only for specific work when completed at accredited institutions whose quality and course content have been approved by the college. Grades earned at other institutions will not be transferred to the student's record at Manhattan College. Additionally, there shall be no grades entered in the student's record for A.P., CLEP or I.B. credits.

## Veteran Admission

Applicants that have served in the Air Force and have a CCAF/Air Force University or Joint Services Transcript and anyone that has completed college level coursework online or at a college campus prior to/during/after your military service, will apply to the college following the transfer applicant guidelines.

While a majority of the coursework from the Joint Services Transcript will not be transferrable, we do require that you submit the document for review. The letter of recommendation can be completed by a commanding officer, high school teacher, employer or college professor.

After an acceptance decision is made, students should submit the DD214 and Certificate of Eligibility to the Admissions Office as soon as possible. The Office of Financial Aid Administration is responsible for arranging any V.A. educational benefits. Veterans should bring a copy of their member-4 DD 214 form to the office with their letter of acceptance. The eligibility for the V.A. educational benefits is for the semester or session for which they are in attendance. To continue to be eligible for these benefits in subsequent semesters, veterans must report to or email the Office of Financial Aid Administration's designated Department of Veterans Affairs School Certifying Official to renew the certification of attendance at the beginning of each semester for which they are registered.

The following information is important:
a. Veterans are paid benefits for actual credit hours in attendance. Twelve undergraduate semester hours is considered full time for V.A. benefits.
b. Any change of status-withdrawing from a course, non-attendance in a particular semester, failure to register for a subsequent semester-must be reported by the student to the Office of Financial Aid Administration immediately.

## Readmit Students

Any student who unofficially or officially withdraws from the College must be readmitted through the Office of Admissions. Credits earned at other institutions after leaving Manhattan College will be evaluated according to existing school policies.

Students returning after an official leave of absence will be readmitted by the Dean's Office that initially granted the leave. Only students making satisfactory progress will be granted an official leave of absence. With approval, a student can take a leave of absence not to exceed one year. Students transferring to another school within the College must first seek clearance from the original Dean.

## Programs of Credit by Examination

Credit by examination will be awarded only for courses in consonance with the prescribed or elective courses applicable to the degree. Such credit is awarded and will be so
identified on the student's record after they have registered and are attending class. The academic Dean concerned determines courses which are equivalent to the examinations taken.

Total credit by examination to entering, as well as to enrolled students, in any or all programs in which the college participates, may not exceed one-fourth of the total number of credit hours normally required for the degree. No grades are assigned to courses credited.

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Michael Passarella
Retired Partner, PricewaterhouseCoopers LLP
Michael Regan
Retired Vice Chairman \& CAO, KPMG LLP

## College-wide Educational Goals

$\left.\left.\left.\begin{array}{ll}\text { Core Compentency } & \begin{array}{l}\text { Learning Objective }\end{array} \\ & \begin{array}{l}\text { Effective Communication } \\ \text { based on audience, purpose, and } \\ \text { context appropriate to discipline } \\ \text { and medium 1.2 communicate } \\ \text { ideas orally based on audience, } \\ \text { purpose, and context appropriate } \\ \text { to discipline }\end{array} \\ \text { analyze and synthesize information } \\ \text { and construct logical arguments } \\ \text { to ask appropriate questions, } \\ \text { generate ideas and draw proper } \\ \text { conclusions }\end{array}\right\} \begin{array}{l}\text { evaluate and select information } \\ \text { resources, integrate them into } \\ \text { original work and cite them } \\ \text { appropriately }\end{array}\right\} \begin{array}{l}\text { 4.1 interpret quantitative } \\ \text { information 4.2 use quantitative } \\ \text { methods to solve problems }\end{array}\right\}$

Revised on 12/10/2020

## Counseling Center

The Counseling Center staff provide services to full time undergraduate students. Those who utilize the services of the Center present a wide variety of problems and concerns, such as adjustment to college, homesickness, relationships conflicts, stress, feelings of anxiety or depression, and concerns about alcohol or other substance abuse. In addition, Center staff provide consultation services by phone or in office to those members of the Manhattan College academic community who have questions or concerns about how to help students.

The Counseling Center provides the following services:

- Individual and group counseling
- Crisis intervention
- Consultations and referrals services
- Outreach programs
- Consultations to student organizations
- Prevention programming
- Kuro Mindfulness workshops
- Zen room
- Telehealth Space

All services of the Counseling Center are confidential. Records maintained in the Counseling Center are separate from the college academic records. All staff members of the Counseling Center adhere to professional and ethical standards regarding confidentiality. The limits of confidentiality are discussed with each student at the first session.

The Counseling Center is located in Miguel Hall, Room 501. Appointments are recommended (call ext. 7394), however, walk-ins are accommodated as quickly as scheduling permits. The office is open weekdays from 9:00 a.m. to 4:30 p.m. and evenings by appointment.

## ACCREDITATION

The Counseling Center at Manhattan College is accredited by the International Accreditation of Counseling Services.

The International Accreditation of Counseling Services (https://iacsinc.org/) evaluates counseling centers against a set of standards that include regulations about confidentiality, professional training and credentials of clinicians, outreach efforts, and responsiveness to student mental health needs.

For more information, please visit our website at:https://inside.manhattan.edu/student-life/ counseling-center/index.php (https://inside.manhattan.edu/student-life/counseling-center/)

## Faculty/Senate

## Faculty

## Regular Teaching and Administrative Faculty

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B.A., The Catholic University of America; M.A., New York University; M.Phil., Ph.D., Columbia University. (1986-2019)

## VINCENT W. ANTONETTI

Professor Emeritus of Mechanical Engineering
B.M.E., The City College of New York; M.S.M.E., Columbia University; Ph.D., University of Waterloo; Professional Engineer, New York State. (1987-1996)

## VICTOR G. BADDING

Professor Emeritus of Chemistry
B.S., Canisius College; Ph.D., University of Notre Dame. (1965-2001)

RAYMOND C. BARILE
Professor Emeritus of Chemistry
B.S., Manhattan College; M.S., Ph.D., Fordham University. (1961-2002)

## KATALIN A. BENCSATH

Professor Emeritus of Mathematics and Computer Science
B.S., Eotvos University, Budapest; M.A., Queens College; Ph.D. City University of New York. (1981-2012)

## ROBERT E. BERLIN

Associate Professor Emeritus of Mechanical Engineering
B.S. (M.E.), The City College of New York; M.S., Rensselaer Polytechnic Institute; M.S., New York University; D.P.H., Columbia University; Professional Engineer, New York State. (1982-1996)

## ROBERT J. BORRMANN

Professor Emeritus of Electrical Engineering
B.E.E., Manhattan College; M.E.E., Ph.D., Polytechnic Institute of Brooklyn. (1964-2009)

## JOSEPH M. BUSCHI

Assistant Professor Emeritus of Physics
B.S., Manhattan College; M.A., Columbia University. (1958-2003)

## JOAN F. CAMMARATA

Professor Emeritus of Spanish
B.A., Fordham University; M.A., M.Phil., Ph.D., Columbia University. (1982-2021)

JOSEPH F. CAPITANI
Professor Emeritus of Chemistry
B.S., Manhattan College; Ph.D., University of North Carolina, Chapel Hill. (1984-2023)

JOHN CAREY
Assistant Professor Emeritus of Kinesiology
B.S., (P.E.) Manhattan College; M.A., University of Notre Dame. (1958-2002)

RICHARD V. CONTE
Associate Professor Emeritus of Mechanical Engineering
B.E. (M.E.), Manhattan College; M.S. (M.E.), Ph.D., University of Arizona; Professional Engineer, New York State. (1972-1996)
ALFRED P. DILASCIA
Professor Emeritus of Philosophy
B.A., Queens College; M.A., Ph.D., Fordham University. (1949-1995)

## WINSOME A. DOWNIE

Assistant Professor Emeritus of Political Science
B.A., Barnard College; M.A., M.Phil., Ph.D., Columbia University. (1978-2023)

## MAIRE DUCHON

Associate Librarian Emeritus
A.B., Fordham University; M.L.S., Queens College; M.A., Manhattan College. (1975-2015)

## RICHARD EMMERSON

Dean Emeritus
B..A., Columbia Union College; M.A., Andrews University; Ph.D., Stanford University. (2009-2014)
JUDITH F. EVANS
Associate Professor Emeritus of Education
B.A., Goucher College; M.S., College of New Rochelle; M.A., Ph.D., New York University. (1995-2003)

## GEORGE F. FREIJE

Assistant Professor Emeritus of English
B.A., Boston College; M.A., Ph.D., University of Pennsylvania. (1969-2012)

CHARLES R. GEISST
Professor Emeritus of Economics and Finance
B.A., University of Richmond; M.A., New School for Social Research; Ph.D., London School of Economics. (1985-2019)
RICHARD GOLDSTONE
Assistant Professor Emeritus of Mathematics
B.A., New York University; Ph.D., City University of New York. (1997-2018)

AHMED T. GOMA
Associate Professor Emeritus of Accounting
B.Comm., M.Acc., Al Azhar University; M.B.A., Baruch College; M.Phil., Ph.D., City University of New York. (1988-2020)
DONALD P. GRAY
Professor Emeritus of Religious Studies
B.A., St. Michael's College, Toronto; M.A., University of Notre Dame; Ph.D., Fordham University. (1962-2017)

## FREDERICK D. GREENE

Associate Professor Emeritus of Management
B.S., M.B.A., Ph.D., State University of New York at Buffalo. (1974-2013)

HELEN C. HOLLEIN
Professor Emeritus in Chemical Engineering
B.S., (Ch.E.), University of South Carolina; M.S., D.Eng.Sc., New Jersey Institute of Technology; Professional Engineer, New Jersey. (1982-2000)

BR. PATRICK J. HORNER, F.S.C.
Professor Emeritus of English
B.A., The Catholic University of America; M.A., Ph.D., State University of New York, Albany. (1977-2022)

## CAROL M. HURWITZ

Associate Professor Emeritus of Mathematics
B.S., M.S., University of California at Berkeley; M.A., Hunter College; Ph.D., City

University of New York. (1990-2022)

## MANSOUR JAVID

Professor Emeritus of Electrical Engineering
B.Sc., Birmingham University, England; M.E., Ph.D., McGill University. (1981-1990)

JOHN S. JERIS
Professor Emeritus of Environmental Engineering
B.S., M.S., Sc.D., Massachusetts Institute of Technology; Professional Engineer, New York State, District of Columbia, and New Jersey. (1962-1995)

## MICHAEL K. JUDIESCH

Associate Professor Emeritus of Management
B.S., B.S.N, Ph.D., University of lowa. (2001-2019)

## STEPHEN KAPLAN

Professor Emeritus of Religious Studies
B.A., Pennsylvania State University; M.A., Ph.D., Temple University. (1981-2022)

JOHN W. KEBER
Associate Professor Emeritus of Religious Studies
B.A., Loyola University of Los Angeles; M.A., Fordham University. (1969-2003)

## RICHARD KIRCHNER

Professor Emeritus of Chemistry
A.B., University Of California At Berkeley; M.S., San Jose State College; Ph.D., University Of Washington. (1973-2015)

## GARY KOLKS

Associate Professor Emeritus of Chemistry
B.S., St. Francis College; M.A., M.Phil., Ph.D., Columbia University. (1981-2021)

## ELIZABETH M. KOSKY

Professor Emeritus of Education
B.A., Manhattanville College; M.S. in Ed., Fordham University; M.A., Manhattan College; Ed.D., University of Miami. (1970-2022)

## ROBERT K. KRAMER

Professor Emeritus of German
A.B., St. Peter's College; A.M., St. Louis University. (1961-2001)

## KENNETH B. LAWRENCE

Professor Emeritus of Mechanical Engineering
B.S.M.E., M.S.M.E., Pennsylvania State University; Professional Engineer, New Jersey. (1963-1985)
DONG HWAN LEE
Associate Professor Emeritus of Marketing
B.A., Kon-Kuk University; M.B.A., Oklahoma University; Ph.D., Indiana University. (1997-2021)

## EMILE LETENDRE

Associate Professor Emeritus of Management
B.A., Providence College; M.A., Boston College; Ph.D., New York University. (1968-2000)

## LUIS J. LOYOLA

Associate Professor Emeritus of Sociology
B.A., University of Puerto Rico; M.A., Hunter College; M.Phil., Ph.D., City University of New York Graduate School. (1988-2019)

## THOMAS G. MANCUSO

Associate Professor Emeritus of Electrical Engineering
B.E.E., Manhattan College; M.S.E.E., Ph.D., New York University. (1973-2012)

## ALFRED R. MANDULEY

Assistant Professor Emeritus of Marketing
B.B.A., Manhattan College; M.B.A., New York University. (1959-2012)

ROSITA L. MARCELLO
Assistant Professor Emeritus of Spanish
B.A., M.A., Columbia University; Ph.D., University of Madrid. (1970-1997)

## PETER J. MCCARTHY

Assistant Professor Emeritus of Education
B.S., Manhattan College; M.S., College of New Rochelle; Ed.M., Ed.D., Columbia University. (1995-)

## MICHAEL J. MCCAUSLAND

Assistant Professor Emeritus of Psychology
B.A., M.S., The Catholic University of America; M.A., Ph.D., St. John's University. (1975-2011)

## THOMAS MCGOWAN

Professor Emeritus of Religious Studies
B.A., The Catholic University of America; M.A., Manhattan College; Ph.D., University of Toronto. (1965-1996)

## JANET MCSHANE

Professor Emeritus of Mathematics
B.S., M.A.T., Northern Arizona University; Ph.D., University of Arizona. (2014-)

## HERBERT K. MILLER

Professor Emeritus of Chemistry
B.S., The City College; M.S., University of Illinois; Ph.D., Columbia University. (1963-1991)

JOHN H. MORAN
Associate Professor Emeritus of Philosophy
B.S., University of Scranton; M.A., Ph.D., Fordham University. (1962-1995)

## JAMES A. MUELLER

Professor Emeritus of Environmental Engineering
B.C.E., M.E., Manhattan College; Ph.D., University of Wisconsin; Professional Engineer, New York State. (1969-2001)

BR. JOHN A. MULLER, F.S.C.
Associate Professor Emeritus of Government
B.A., The Catholic University of America; M.A., Ph.D., Fordham University (1970-2003)

## BR. AUGUSTINE NICOLETTI, F.S.C.

Associate Professor Emeritus of Education
B.A., Syracuse University; M.S., West Chester University; M.A., Duquesne University;
D.Min., San Francisco Theological Seminary; Ed.D., St. Mary's University.

## CLAIRE E. NOLTE

Professor Emeritus of History
B.A., Douglass College; M.A., Ph.D., Columbia University. (1993-2018)

Professor Emeritus of English
B.A., College of Mount Saint Vincent; M.S. in L.S., Columbia University; M.A., Manhattan College; Ph.D., Fordham University. (1977- 2009)

## LYDIA PANARO

Assistant Professor Emeritus of English
B.A., M.A., Ph.D., New York University. (1969-2007)

## ROMEO J. PASCONE

Professor Emeritus of Electrical Engineering
B.S. (E.E.), Massachusetts Institute of Technology; M.S. (E.E), Columbia University;

Ph.D., Polytechnic Institute of New York. (1982-2021)
JUDITH E. PLASKOW
Professor Emeritus of Religious Studies
B.A., Clark University; M.Phil., Ph.D., Yale University. (1979-2012)

CAROLYN E. PREDMORE
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B.A., University of Virginia; M.A., University of Maryland; M.B.A., Baruch College; Ph.D., City University of New York. (1989-2019)

PHILIP J. PRITCHARD
Professor Emeritus of Mechanical Engineering
B.Tech., University of Bradford; M.Sc., State University of New York at Stony Brook;
M.Phil., Ph.D., Columbia University. (1981-2018)

## JULIE L. PYCIOR

Professor Emeritus of History
B.A., Michigan State University; M.A., Ph.D., University of Notre Dame. (1989-2019)

WILLIAM F. REILLY, JR.
Associate Professor Emeritus of Philosophy
B.A., Manhattan College; M.A., Ph.D., Fordham University. (1950-1995)

## RODNEY T. RODRIGUEZ

Professor Emeritus of Modern Foreign Languages
B.A., Florida State University; M.A., Ph.D., Northwestern University. (1995-2010)

## SUZANNE E. RUDNICK

Professor Emeritus of Chemistry
B.A., Brandeis University; Ph.D., Boston University. (1982-2021)

## JOHN BARRY RYAN

Professor Emeritus of Religious Studies
B.A., The Catholic University of America; M.A., Manhattan College; S.T.L. University of Strasbourg; M.A. in Liturgy, Ph.D., Institut Catholique de Paris. (1972-2006)

## FREDERICK M. SCHWEITZER

Professor Emeritus of History
B.A., Lehigh University; A.M., Ph.D., Columbia University. (1960-1999)

CATHERINE M. SHANLEY
Associate Librarian Emeritus
B.S., Fordham University; M.A. in L.S., University of Denver; M.A., Manhattan College; D.L.S., Columbia University. (1972-2015)

## GORDON SILVERMAN

Professor Emeritus of Electrical Engineering
B.A., B.S.(E.E.), M.S.(E.E.), Columbia University; Ph.D., Polytechnic University. (1991-2014)
THOMAS J. SMITH
Professor Emeritus of Mathematics
B.A., St. John's University; M.A., Columbia University; Ph.D., New York University. (1963-)

HENRY J. STALZER, JR.
Associate Professor Emeritus of Electrical Engineering
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## CHARLES STOLZE

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## JAMES M. SUAREZ

Professor Emeritus of Economics and Finance
B.S.F.S., Georgetown University; Ph.D., Columbia University. (1984-2009)

## EMILY MUNG-CHIO CHAO SUN

Professor Emeritus of Economics and Finance
B.S., National Chiao-Tung University, China; M.A., Ph.D., University of Michigan. (1964-1993)

## LOUIS THEODORE

Professor Emeritus of Chemical Engineering
B.Ch.E., Cooper Union; M.Ch.E., Eng.Sc.D., New York University. (1960-2010)

ROBERT V. THOMANN
Professor Emeritus of Environmental Engineering
B.C.E., Manhattan College; M.C.E., Ph.D., New York University. (1966-1996)

## GARY VENA

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EMIL E. VON KOEHLER

Associate Librarian Emeritus
Baccalaureate, Lutheran Gymnasium, Budapest; M.S., University of Technology and Economics, Budapest; M.L.S., Columbia University. (1964-1987)

## EVRICLEA VOUDOURI-MANIATI

Associate Professor Emeritus of Electrical Engineering
B.S., M.S., Ph.D., Polytechnic Institute of New York. (1982-2018)

Assistant Professor Emeritus of French and Italian
Diploma in French Philology, State University of Sofia. (1966-)

## JOHN P. WASACZ

Professor Emeritusd of Chemistry
B.S., St. John's University; Ph.D., University of Pennsylvania. (1969-2023)

JOHN R. WILCOX
Professor Emeritus of Religious Studies
B.A., Marist College; M.A., Fordham University; M.Phil, Ph.D., Union Theological Seminary. (1974-2012)

## FREDERICK A. ZENZ

Professor Emeritus of Chemical Engineering
B.S., Queens College; M.Ch.E., New York University; Ph.D., Polytechnic Institute of Brooklyn; Professional Engineer, New York State. (1969-1987)

## MELVIN ZIMET

Associate Professor Emeritus of Managerial Sciences
B.S., M.B.A., Ph.D., New York University. (1969-1983)

## College Senate Officers

Richard Gustavson, Speaker
Cory Blad, First Deputy Speaker
Marin Bultena, Second Deputy Speaker
Nicole Rodi, Secretary

## Faculty

Maeve Adams
Bahareh Estejab
Enrico Forti
Richard Gustavson
Amy Handfield
Swaminathan Krishnan
William Merriman
Kashifuddin Qazi
Amanda Sanseverino

## Students

Marin Bultena
Nicole Rodi

## Administration

Cory Blad
Ronald Gray
Tim Ward

## Alumni

Michael McEneney

## Staff

Syrita Newman
Kevin Nipal

## Faculty Council

## The Council for Faculty Affairs

## Officers

Margaret Groarke, Chair

Terms concluding in 2022:
Gerardo Carfagno, Chia-Jane Wang, Laura Redruello, Bahman Litkouhi, John Gormley, Rebecca Kern-Stone, Brian Chalk.

Terms concluding in 2023:
Bruce Liby, Kimberly Fairchild, Sr. Remigia Kushner, Lauren Trabold, Richard Carbonaro, David Shefferman.

Terms concluding in 2024:
Margaret Groarke, Bryan Wilkins, Matthew Volovski, Yi Wang, Lisa Toscano, Hanni Liu, Sr. Joan Harnett.

## Financial Services

Tuition \& Fees<br>Student Accounts and Bursar Services<br>Financial Aid Administration

## Tuition and Fees

The uncertainty of present-day costs makes it necessary for the College to reserve the right to increase tuition and fees whenever necessary. In applying for admission, students and their families should anticipate future annual increases. Such changes will be formally announced in advance.

## Undergraduate Tuition and Fees 2023-2024

## A. Full Time Students

Full time students register for 12 or more credits per semester.

## Tuition Charges per Semester

| Fee | Amount |
| :--- | :--- |
| All students 2023-2024 | $\$ 23,050$ |
| Program Fees per Semester |  |
| Fee | Amount |
| Liberal Arts and Division of Education | $\$ 870$ |
| Health Professions | $\$ 870$ |
| O'Malley School of Business | $\$ 1,040$ |
| Kakos School of Science | $\$ 1,110$ |
| Engineering | $\$ 1,730$ |
| Overcredit Charges* | $\$ 1,360$ per credit hour |

* See section on Overcredits for more detail.


## B. Part Time Students, 2023-2024

Part time students in day, evening or special (January and Summer) sessions register for less than 12 credits per semester.

| Fee | Amount |
| :--- | :--- |
| Tuition Charges per Credit Hour | $\$ 1,360$ |
| Information Services Fee-Part-time students | $\$ 100$ |
| C. School of Continuing and Professional Studies |  |
| (SCPS), per Semester, 2023-2024 |  |
| Fee | Amount |
| SCPS- Accelerated Bachelors Tuition Per Credit | $\$ 800$ |
| SCPS Information Services Fee | $\$ 100$ |
| SCPS Information Services Fee (Resident additional) | $\$ 220$ |

## D. Room and Board Fee, per Semester, 2023-2024 Room and Board Occupancy with the following plans:

| Fee | Amount |
| :--- | ---: |
| 4-Person Suite/ Double Occupancy Room Unlimited Meal Plan | $\$ 9,220^{*}$ |
| Single Room (Chrysostom Hall) Unlimited Meal Plan | $\$ 10,400$ |
| Double Room Apartment (Horan Hall) Unlimited Meal Plan | $\$ 10,980$ |
| Double Room Apartment (Horan Hall) Apartment Meal Plan | $\$ 10,480$ |
| Single Room Apartment (Horan Hall) Unlimited Meal Plan | $\$ 12,140$ |
| Single Room Apartment (Horan Hall) Unlimited Meal Plan | $\$ 11,650$ |

* Mandatory plan for all incoming freshman


## E. One-Time Fees

| Fee | Amount |
| :--- | :--- |
| Application | $\$ 75$ |
| Student Acceptance Deposit Commuter Undergraduate | $\$ 500$ |
| Student Acceptance Deposit Resident Undergraduate | $\$ 800$ |
| Student Acceptance Deposit Camino | $\$ 50$ |
| Student Acceptance Deposit SCPS Commuter | $\$ 100$ |
| Student Acceptance Deposit SCPS Resident | $\$ 400$ |
| Student Acceptance Deposit Commuter Graduate $\$ 100$ <br> Student Acceptance Deposit Resident Graduate $\$ 400$ <br> Resident deposit includes Damage Deposit (Refundable upon <br> completion of contract and abscence of damage to dormitory $\$ 300$ <br> facilities)  |  |

## F. Other Fees

| Fee | Amount |
| :--- | :--- |
| Comprehensive Fee - New Students - per semester | $\$ 1,250$ |
| Comprehensive Fee - Continuing Students - per semester | $\$ 830$ |
| Student Health Insurance ${ }^{* *}$ | $\$ 2,391$ |
| Non-matriculation - per registration | $\$ 240$ |
| Monthly Payment Plan Charge (per semester) | $\$ 50$ |
| Late payment charge (per month overdue balance) | $1 \%$ |
| Returned Check Charge | $\$ 25$ |
| Physical Education May Camp | $\$ 1,460$ |
| Transcript - per copy | $\$ 5$ |
| Off-Campus Course | $\$ 190$ |

Room Reservation Deposit (advanced each Spring term to
secure plan in dorm
Study Abroad/ Away Fee
Electronic Portfolio Fee (Task Stream) (per semester)
Undergraduate Cost of Attendance 2023-2024
Manhattan College establishes a full cost of attendance (COA) budget that includes
tuition, fees, room and board, books, transportation and personal, miscellaneous
expenses. Only the amounts for tuition and fees and on-campus residence will appear
on your billing statement, but the other expenses are calculated into the student expense
budget for the purpose of establishing need and awarding aid.

Annual Cost of Attendance* - Commuter, 2023-2024

| Fee | Amount |
| :--- | :--- |
| Tuition | $\$ 46,100$ |
| Program Fee (average) | $\$ 2,250$ |
| Comprehensive Fee - New Student | $\$ 2,500$ |
| Books | $\$ 1,200$ |
| Miscellaneous | $\$ 1,200$ |
| Transportation | $\$ 1,200$ |
| Room and Board Allowance | $\$ 2,500$ |
| Total Budget | $\$ 56,950$ |
| Annual Cost of Attendance* - Resident, 2023-2024 |  |
| Fee | $\mathbf{A m o u n t}$ |
| Tuition | $\$ 46,100$ |
| Program Fee (average) | $\$ 2,250$ |
| Room and Board 4-Person or Double Occupancy | $\$ 18,440$ |
| Comprehensive Fee - New Student | $\$ 2,500$ |
| Dorm Damage Deposit | $\$ 300$ |
| Books | $\$ 1,200$ |
| Miscellaneous | $\$ 1,200$ |
| Transportation | $\$ 900$ |
| Total Budget | $\$ 72,890$ |

## G. Camino Program, per Semester, 2023-2024

| Fee | Amount |
| :--- | :--- |
| Camino Tuition per semester | $\$ 5,700$ |
| Camino Comprehensive Fee per semester | $\$ 830$ |

* Note: COA is an estimate listed for new students entering 2023-2024 using the average of all schools program fees as a representative model. School of enrollment determines the program fee. Consult catalog for the appropriate charge. Adjustments
are made for less than full-time status, overcredit charges, and room and board plan selected. Please refer to the Student Accounts and Bursar Services website for a complete COA listing for new and continuing students.
** Student Health Insurance will be assessed annually to all full-time students, international students, resident students and students participating in intercollegiate athletics. The charge can be waived if proof of existing comparable coverage is submitted timely and approved by the insurance provider.


# Student Account Policies and Procedures Payment Responsibilities and Agreement Notice 

Enrolled students agree to be in accordance with all policies and procedures related to their financial obligation to the College. The enrolled student assumes liability for any debt incurred during his/her attendance at Manhattan College and agrees to reimburse Manhattan College the fees of any collection agency, which may be based on a percentage at a maximum of $33.33 \%$ of the debt, and all costs and expenses, including reasonable attorneys' fees, we incur in such collection efforts. "The terms of payment, withdrawal and adjustment set forth in this catalog are incorporated upon enrollment.

Students are required to notify in writing to the College any change in address or other contact information. All changes in billing address must be provided immediately in writing even after such time as a student completes his/her program and has loans outstanding to the school. Failure to comply with the policies on address changes that result in the loss or delay of contact are the sole responsibility of the student.

Payment to the College is always the responsibility of the student regardless of the source of funding for tuition. Inquiries regarding accounts receivable and/or cashiering can be directed to the Office of Student Accounts and Bursar Services by phone at (718) 862-7961 or e-mail studentaccounts@manhattan.edu.

Account access is available at www.manhattan.edu/myaccount (https://selfservice.manhattan.edu/) with official Manhattan College login credentials. Students and designated authorized users can view the billing account detail transactions and up-to-date account balances. Other student information services available to view via self service include financial aid awards, class schedules, grades, unofficial transcripts, and personal information such as address, phone number, and e-mail address.

## Safeguarding Policy

This is an official notice of Manhattan College's policy regarding the safeguarding of customers' information established by the Federal Trade Commission (FTC). Manhattan College is subject to the provisions of the Gramm-Leach Bliley Act (GLBA, 16 CFR 314) which recognizes the College and other higher education institutions as a financial institution.

Manhattan College adheres to very strict privacy and safeguarding rules, keeping sensitive information safe. Manhattan College is in compliance with specific requirements related to the administrative, technical and physical safeguarding of customer information. Manhattan College also requires its service provides to implement and maintain such safeguards.

## Tuition Liability for Fall and Spring Terms

Only students who have satisfied their current account for the term will be eligible for online pre-registration for an upcoming term. Billing statements with a tuition deadline date will be emailed to students in early July for the Fall term and by mid-December for the Spring term. Follow-up billing statements for outstanding balances continue monthly thereafter, but it is the student's responsibility to access the Student Account

Suite, www.manhattan.edu/myaccount (https://self-service.manhattan.edu/), for account updates. No student will be permitted to enroll for an academic term until all outstanding accounts with the College have been satisfied. Liability for tuition and fees is not contingent on completing courses, course attendance, receiving grades, receiving passing grades or status of financial aid awards. Students who register after the tuition deadline for a term or make adjustments which result in increased liability after the tuition deadline for a term must make payment to the College upon those transactions.

## Registration/Payment for Intersession Terms

Summer preregistration is available online. Students are encouraged to review their account balance on the Student Account Suite to view the charges. Payment reminders will be sent approximately one week before the payment deadline. In order to enroll in person for an intersession term (Winter/Summer), payment must accompany a request for registration or be provided in advance. There is no option to register without prepayment after preregistration concludes and for the winter session.

## Payment of Tuition and Fees

Acceptable forms of payment are cash, personal check, bank check, money order, credit card (online only via PayPath), and bank wire via Western Union. Checks must be payable to Manhattan College and routed to the Office of Student Accounts and Bursar Services. The student's identification number should be included on all payments. The College reserves the right to dictate form of future payments in cases where insufficient funds are presented and/or in cases of continued delinquent account status. Payment can be made in person at the Student Accounts and Bursar Services Office in Miguel Hall, Room 100 or mailed. Secure, online credit card payments and ACH automatic check withdrawals may be processed by accessing the Student Account Suite, www.manhattan.edu/myaccount (https://self-service.manhattan.edu/), with the student or designated authorized users login credentials.

## Method of Financial Aid Payments

Financial aid will be credited directly to the student tuition account. Although initial tuition bills will list pending aid to assist in financing calculations, actual disbursements are subject to eligibility requirements, completion of necessary applications, and verification of applications. Institutional awards, Federal Direct Stafford Loans, Federal Direct PLUS Loans, Federal Pell, SEOG, TEACH, and New York State TAP will be disbursed to the student account in two disbursements; one-half at the scheduled start of the Fall term and the other half at the scheduled start of the Spring term. If a student earns eligibility for any federal aid (Pell, Direct Loans) for intersession terms, awards will be applied at the start of those terms. Private loans will also be applied in accordance with the authorized enrollment periods. Federal Work Study is not applied to the tuition account. FWS awards become active upon application and when a work position is secured. Paychecks are issued to students semi-monthly and are based on actual hours worked.

## Non-Payment Penalties

Students can avoid late payment charges by paying their tuition and fees by the published deadline. A late penalty of $1 \%$ of the outstanding balance of any student account will be
assessed at the end of each month until the account is settled. Accounts not paid in full may be referred to a collection agency, which can result in additional collection and/or legal costs.

Indebtedness to the College may automatically terminate current enrollment and indefinitely suspend future enrollment. The College reserves the right to request prepayment before allowing registration for future terms. In addition, students with an outstanding obligation to the College will also be barred from online account access via Self Service, receiving grade reports, parking decals, and participating in commencement until all account balances have been paid.

## Policy on Returned Items

If for any reason a check, eCheck, eRefund does not clear for payment, a returned ACH and/ or check charge of $\$ 25$ is assessed to the student's tuition account. Payment for the amount of the returned item and the $\$ 25$ return item charge must be paid immediately by cash, credit card, certified bank check or money order. Personal checks and ACH withdrawal will no longer be accepted as a payment option. Account restrictions will also bar electronic payments via eCheck after an item is returned. The College will request that future payments be made in form of cash, credit card, certified bank check or money order. The College reserves the right to cancel or deny enrollment for a particular term due to payment with insufficient funds.

## Monthly Payment Plan

Manhattan College partners with TouchNet to offer semester based 5-month installment plans (Fall \& Spring only), referred to as the Monthly Payment Plan (MMP) for matriculated students enrolling at least part time. The cost to enroll is $\$ 50.00$ per term. The monthly payment plan allows for convenient adjustments and will automatically notify you via email anytime your installments increase or decrease based on changes in tuition and fees or revisions in financial aid items. For more information, you can refer to the Payment Options tab on the Student Accounts Website (manhattan.edu/ studentaccounts). (https://inside.manhattan.edu/offices/bursar/payment-options.php)

## Employer Deferment

Students expecting reimbursement from their employer may defer payment of tuition and applicable fees upon approval of our Application for Deferral. Upon approval, a student's account is charged the deferral fee (listed on application) and any portion of tuition/fees not covered by the employer will be payable in advance. The application will require certification of the employer's reimbursement on company letterhead. Please contact the Office of Student Accounts and Bursar Services for the current terms and fees and to seek eligibility for a regular student deferral if there is no employer reimbursement. The cost of an employer deferral is $\$ 100$ (subject to change) which is charged to the student account and payable immediately.

## Regular Student Deferment

Students who need additional time to secure tuition financing will have the opportunity to apply for a tuition deferment, with an approved source of funding. If approved, a deferment can extend your tuition payment deadline by approximately six weeks. Applications must
be filed by the tuition deadline date. The cost of a deferral is $\$ 100$ (subject to change) which is charged to the student account and payable immediately. The deferment fee and extended deadline date will be listed in the signed and approved application.

## Overcredit Charges

Students who exceed the annual (Fall and Spring) number of credits listed under the current degree requirements in their field of study for their class status will be charged at the per credit tuition rate for the school in which they are registered. Course requirements for each year by field are listed in the Manhattan College catalogue. Academic Advisors and Assistant Deans are available to help students with course selection but they are unable to advise students on overcredit charges nor give a reminder and/or warning of the College's overcredit policy.

Students on full or partial scholarships are not exempt from overcredit charges if they take credits in excess of those prescribed in a particular academic year for the regular full-time program outlined in the catalogue.

## Schedule Changes

Students who make changes to their academic schedules [withdraw from a class(es)] may result in:

1. Recalculation of financial aid for that semester and/or future semester.
2. TAP decertification (loss of TAP grant).
3. Student's course load in future semesters may be increased resulting in overcredit charges, or requiring the student to take courses during the summer or intersessions both at additional cost.

## Refund and Liability Policies

If a student withdraws from a term (official or unofficial), takes a leave of absence after the start of term, or is dismissed from Manhattan College, then the school may be required to return all or some portion of federal funds awarded to the student. The student may be eligible for a refund for a portion of the tuition, fees, and room and board paid to the College depending on the refund/liability schedule and the determined official withdrawal date. Students must complete an official "Withdrawal from College" form.

Failure to attend class and/or failure to notify the Office of the Dean and Office of the Registrar does not constitute an official withdrawal. Also, failure to make or complete payment does not constitute official withdrawal. Students who never attend or stop attending classes and fail to file the official paperwork mandated by College policy are responsible for $100 \%$ of tuition and fees.

## Official Date of Withdrawal

The date used for refund/liability purposes will be the date that the paperwork was completed, not the last date of attendance. Drops or withdrawals received by mail will be effective as of the official postmarked date.

## Obligation to Outside Funding Sources Upon Withdrawal

If a student received financial assistance from an outside agency then some portion of the refund may have to be returned to the issuing grant/scholarship agency or lender. Students who receive Federal Title IV finds will be subject to the refund policy listed in that section.

## Adds, Drops and Withdrawals from Individual Courses

Adds/Drops and Withdrawals from individual courses must be officially requested with proper forms and processed by the Office of the Dean and the Office of the Registrar. No add/drop of courses will be permitted after the published and posted deadlines.

Add/Drops processed during the published dates (usually the first calendar week of the term) will qualify for a schedule change which may affect tuition and fee charges. After the deadline, withdrawal from a course is the only option for a student. In this case, a student is liable for tuition in accordance with his/her original enrollment at the end of the add/drop period. There is no refund made to students who withdraw from an individual course(s).

## Refund of Tuition/Liability of Tuition- Traditional 15 week term

Refund of tuition charges only will be made in accordance with the following schedule:

| Duration | Refund/Liability |
| :--- | :--- |
| During the 1st week | 100\% refund no liability |
| During the 2nd week | $80 \%$ refund 20\% liability |
| During the 3rd week | $60 \%$ refund $40 \%$ liability |
| During the 4th week | $40 \%$ refund 60\% liability |
| During the 5th week | $20 \%$ refund $80 \%$ liability |

After Week 5 there is no refund, and $100 \%$ liability of tuition.

## Refund of Tuition/Liability of Tuition- SCPS Degree Programs \& 7-week Session:

Refund of tuition charges only (not registration fee or other fees) will be made in accordance with the following schedule:

## Duration

During the 1st week
During the 2nd week
During the 3rd week

## Refund/Liability

$100 \%$ refund no liability
$70 \%$ refund $30 \%$ liability
30\% refund70\% liability

After Week 3 there is no refund, and 100\% liability of tuition and fees

## Withdrawal/Leave of Absence

Voluntary and involuntary withdrawals or leaves of absence will be subject to the refund/ liability schedule as listed in the catalog. Since the College incurs the cost of a student's enrollment, specific circumstances that pertain to the withdrawal or leave of absence will not be considered for review except in cases of terminal illness or death of an immediate family member.

Failure to attend classes and/or notification to the instructor does not constitute an official withdrawal. Furthermore, failure to make or complete payment does not constitute official withdrawal.

## Room and Board Liability

Charges will be prorated per calendar week up to 5 weeks, as authorized by the Office of Residential Life.

## Circumstances for Appeal

Voluntary and involuntary withdrawals or leaves of absence will be subject to the refund/ liability schedule as listed in this catalog. Since the College incurs the cost of a student's enrollment, specific circumstances that pertain to the withdrawal will not be considered for review except in cases of terminal illness or death of an immediate family member. Appeals of only these two severe cases can be forwarded to the Director of Student Accounts.

## Tuition Insurance Plan

Manhattan College has partnered with GradGuard to offer an optional insurance plan, Tuition Protection Plan by Allianz Global Assistance, which helps protect you in cases of accident or illness. Your participation in Tuition Protection Plan is completely voluntary; it represents a contract between you and the Allianz Global Assistance. Manhattan College does not benefit from your participation.

## Enrollment Instructions

Should you decide to participate in the Tuition Protection Plan, you can learn more and obtain a quote by calling 877-232-0765 or go to www.gradguard.com/manhattan (http:// www.gradguard.com/manhattan/). Sign-up is required prior to the first day of classes. For the 2023-24 year, August 28, 2023 is the first day of classes in the Fall and January 17, 2024 is the first day of classes in the spring.

## What the Plan Covers

The coverage complements our refund policy-providing reimbursement for eligible tuition payments, room and board fees and other nonrefundable expenses if you withdraw for a covered illness or injury at any time during the plan period.

## Adjustment of Institutional Aid

The College's refund policy exists for calculating liability for institutional tuition charges. Therefore, if any charges are prorated as a result of voluntary or involuntary withdrawal,
the College must in turn prorate any institutional grants based on the percentage charged to the student as listed in the above policy.

## Outside Scholarships and External Funding

Students must notify Student Accounts and Bursar Services of any external funds/ resources they will receive regardless of amount. Students can use the External Resources form or forward copies of their notice of award. The terms "outside", "external" or "private" sources applies to any fund, scholarship or benefit awarded and administered by an organization other than Manhattan College. Resources can include: high schools, civic or religious organizations, state or federally funded sources not listed in this catalog, or tuition benefits from an employer. Federal regulations require that these awards be treated as educational resources for determining the student's eligibility for financial aid.

To ensure proper accounting of the external resource, funds should be sent directly to Student Accounts and Bursar Services to be applied to the student account.

For many students, the receipt of nominal external resources will not necessitate a financial aid award revision. In some cases, however, a student's demonstrated financial need is already being met in full with federal, state and/or institutional resources before considering an external resource.

In this situation, the College's policy is that such resources will be used first to reduce unmet need, then loan eligibility, then work study eligibility (Federal Pell Grant is not affected by the receipt of external resources). However, the College reserves the right to reconfigure its institutional award offer(s) if the outside funding is such that would result in an overage of the College's intended funding level of institutional aid. If a student receives no need-based financial assistance, then the combination of all merit aid and outside resources may not exceed the allowable cost of attendance.

## Adjustment of Federal Aid

Return of Title IV Federal Aid
When a student withdraws during a term, the amount of federal financial aid earned by the student is determined on a pro-rata basis up to the end of $60 \%$ of the term. The amount of federal Title IV aid earned is based upon the period of enrollment completed. A percentage is computed by dividing the number of days completed (as of the date the student officially withdraws) by the total number of days in the term as determined by the Office of Student Accounts and Bursar Services. Scheduled breaks of more than four consecutive days are excluded. The percentage is then applied to the aid received to determine earned and unearned aid. If and when any aid is determined to be unearned, it must be returned to the appropriate financial aid program(s). Returns to aid programs must be made in the following order: Unsubsidized Federal Stafford Loan, Subsidized Federal Stafford Loan, Federal PLUS Loan, Federal Pell Grant, Federal SEOG, and NY State Grant. Once a student has completed more than $60 \%$ of the term, the student is considered to have earned $100 \%$ of aid and no adjustment to aid is made.

## Refunds of Credit Balances

Refunds are subject to the review of the Office of Student Accounts and Bursar Services. Institutional awards can never be refunded to the student. Credit balances resulting from
private scholarships, federal financial aid, and alternative loan programs are subject to specific guideline review and approval by a financial aid administrator and a student account administrator. Refunds will be routed through the approval process when the credit amount actually exists on the student's account, after the census date for each term (first week of each term, or the add/drop period). In the event of an overpayment of personal funds paid to the College by check, refunds will be subject to a ten day holding period while original funding is cleared by the bank. Credit balances resulting from excess payments will be refunded to the student's name unless PLUS loans indicate otherwise.

## Processing of Refunds

Checks will be mailed to the current home address of the student, if the student does not elect to receive an eRefund, or the Parents name and address on the PLUS loan system. The turnaround timeframe for refund availability is 10-14 business days.

## Financial Assistance

Manhattan College provides the maximum financial aid available to qualified students to make their attendance at Manhattan financially possible.

To this end, the College administers a wide range of scholarship and financial aid programs designed to enable the student to pursue his/her studies to graduation. The basis of selection is the ability and/or need. Students are advised that program guidelines and funding levels, especially State and Federal, are subject to change without enough advance notice to be corrected in this publication. Students are advised to refer to the website of the Office of Student Financial Services for current information.

Meeting the complete costs of college requires a cooperative effort from several possible sources of funds: student and family, Manhattan College, state and federal government agencies, and independent sources of aid. Manhattan College attempts to meet a significant portion of need but is unable to meet full need due to financial limitations.

## New Students

Students admitted to the College and demonstrating financial need will receive financial aid assistance offered in the form of a financial aid award notice from the Office of Admissions and Financial Aid. Most financial assistance is based on an assessment of your financial need. Need is the difference between your total cost of attendance (tuition, fees, room and board, books, miscellaneous/personal expenses, and transportation) and what your family can reasonably be expected to pay toward those expenses (determined by the EFC result of FAFSA). If a student's need for assistance changes from one year to the next, his/her financial aid may change.

## Continuing Eligibility

All financial aid is renewable on a yearly basis provided the student remains eligible; must renew the FAFSA annually and comply with any FAFSA verification requests or other requests by financial aid administrators, is enrolled in a matriculated program, is in good academic standing, continues to demonstrate need (for need-based aid) and has not defaulted on student loans. Please check aid eligibility requirements listed under each type of financial aid.

## Application Procedures

Students who wish to apply for any type of need-based financial assistance through Manhattan College must file a Free Application for Federal Student Assistance (FAFSA college code is 002758). Incoming freshmen should file by February 1st to ensure timely handling of their admissions application. FAFSA applications must file on the web at www.fafsa.ed.gov (https://studentaid.gov/h/apply-for-aid/fafsa/). Continuing students must file by the April 15th deadline and file using completed federal taxes. Financial aid will be awarded on a "first come first serve basis" to all students that have pre-registered for the upcoming semester by the published deadline.

The Federal Student Aid Program performs a needs analysis service that computes the expected family contribution (EFC) toward educational costs. Manhattan College then determines financial need based on the total cost of attendance at the college. Manhattan

College deducts the family contribution as determined by the FAFSA from the Total Cost of Attendance to calculate financial need. All attempts are made to help meet some of this need (also known as the Gap) with a combination of the gift (scholarships and grants from Manhattan College, federal and state grant programs and outside scholarships), loans (Federal Stafford and Perkins) and work programs (Federal Work-Study and Campus Employment). Any special circumstances should be submitted in writing to the Student Financial Services Office.

## Notification of Awards

Applicants will be advised of all possible awards via a Financial Aid Award Notice when all pertinent forms and applications are complete. Award notices are provided to incoming applicants on a rolling basis. Students already in attendance will begin to receive their Award Notices between late May and mid-June.

The financial aid awards on your award notice are "estimated" until full eligibility is determined. A financial aid award may be reduced or canceled. The most common reasons for an award adjustment include changes in enrollment (change to part-time status, residency status, not maintaining Satisfactory Academic Progress, or over-awards due to receipt of additional aid and/or scholarships from other sources.) An award may also be adjusted due to changes or inaccuracies in the information on which your award is based. If your financial aid has been disbursed, you may be responsible for partial or full repayment of funds regardless of the reason for the adjustment.

Students are advised to visit the Student Financial Services Office to discuss any changes in family circumstances. A student should never withdraw from a class or a semester without visiting Student Financial Services to discuss the impact on future financial aid.

## Verification of Financial Aid Data \& Applications

FAFSA Verification is a process mandated by the federal government requiring the Student Financial Services office to verify that information reported on the FAFSA application is true and accurate. At a minimum, the government will randomly select thirty percent of a college's population for this process. Applicants are selected or flagged by the government at random and through computer edits. The verification flag will be noted as an asterisk next to the EFC number on the Student Aid Report (SAR) that is received upon completion of the FAFSA. The student is also notified of selection in Part I of the SAR. In addition to those flagged by the government, Manhattan College may flag students randomly or as a result of our own computer edits.

After making the enrollment deposit, prospective students will receive a letter indicating they have been selected for verification and requesting that an institutional verification form be completed and returned with signed copies of student and parent signed federal income tax returns along with other requested documents. Returning students will receive a paper and/or electronic notification of selection for verification as part of the financial aid award renewal package process.

Items to be verified may include tax filing status, household composition and status of individuals listed in the household, proof of number enrolled in post-secondary studies, adjusted gross income and taxes paid from signed federal tax returns, income, and wage statements, proof of non-filing, proof of earned and unearned income, untaxed income,
and benefits, child support documentation, the documented value of investments, and other documents requested by the college.

Selected students are required to provide documentation as specified within 10 business days of receipt of the notice. Within two to six weeks of receipt, a financial aid counselor will analyze the data and take any of the following actions:

- complete the process with no changes and inform the student
- complete the process after making necessary corrections and issue a revised award letter if there are changes in financial aid
- request additional information needed to complete verification

Although tuition bills may show pending aid, no financial aid will be credited to the account until verification has been completed. Institutional aid will not be considered final until the process is complete. Students will be responsible for payment penalties. If there is some unforeseen delay in providing documents to the college, a student may wish to take advantage of the tuition deferral option or make alternate payment arrangements.

Some states also validate the financial data of their state grant recipients. It is important to provide information to those sources as requested.

## Institutional Aid

All forms of institutional assistance (scholarships, awards, need-based grants, athletic awards) are awarded under the assumption of full-time, undergraduate enrollment and residency status requested at the time of the admissions application. Specialized institutional scholarships and grants, including but not limited to Athletic scholarships, Performing Arts scholarships, Lasallian Leaders, RA grants, Quadrangle awards, and other department and/or donor-specific funds are awarded and renewed at the discretion of the committees and directors therein; renewal is contingent upon a student satisfactorily meeting all eligibility requirements and the annual availability of such funds.

Institutional awards are only given for a maximum of four years (eight semesters). Institutional awards and/or assistance of any type may be subject to reduction if the total of all institutional aid exceeds the total cost of tuition and fees charged to the student account.

In addition, when a student changes residency status from resident to commuter, the change in the student's budget will result in the loss of their need-based aid. The merit scholarship will remain the same. The Office of Financial Aid Administration strongly urges all students who are considering moving off-campus to speak with a financial aid counselor prior to making a residency change to see if and/or how your financial aid could change.

## Need-Based Aid

Manhattan College awards need-based aid to students who demonstrate financial need. As with all types of need-based aid, these awards are renewed annually and adjusted in line with changes on the FAFSA. These awards are given for a maximum of four years (eight semesters). Need-based aid recipients must maintain satisfactory academic progress, full-time enrollment, residency status requested at the time of the admissions application, file FAFSA annually and on time, and comply with any verification requests.

Over credits, most study abroad courses, intersession, and/or summer courses are not included with these grants and/or awards:

## MC Grant-in-Aid

Mission-related, need-based awards for full-time undergraduate students at the discretion of the Admissions and Financial Aid Committee.

## Science Scholar's Award

Based on academic achievement and demonstrable financial need for students who intend to enroll in the School of Science only. The award is granted at the discretion of the Admissions and Financial Aid Committee upon admission to the College. This award cannot be renewed/granted if a student chooses a major outside of the School of Science after initial acceptance.

## School of Education Award

Based on academic achievement and demonstrable financial need for students who intend to enroll in the School of Education and Health only. The award is granted at the discretion of the Admissions and Financial Aid Committee upon admission to the College. This award cannot be renewed/granted if a student chooses a major outside of the School of Education and Health after initial acceptance.

## Business Scholar's Award

The Business Scholar's Award is based on academic achievement for students who intend to enroll in the School of Business only. The award is granted at the discretion of the Admissions and Financial Aid Committee upon admission to the College. This award cannot be renewed/granted if a student chooses a major outside of the School of Business after initial acceptance.

## School of Engineering Award

Based on academic achievement for students who intend to enroll in the School of Engineering only. The award is granted at the discretion of the Admissions and Financial Aid Committee upon admission the College. This award cannot be renewed/granted if a student chooses a major outside of the School of Engineering after initial acceptance.

## Merit Scholarships \& Awards

Manhattan College awards academic merit-based aid to students who meet the academic criteria at the time of acceptance to the College. All academic scholarships (non-need based) require a minimum enrollment of 12 credits, residency status requested at the time of the admissions application, and a cumulative GPA requirement of 3.0 while in attendance at Manhattan College for full renewal. These awards are given for a maximum of four years (eight semesters). Over credits, most study abroad courses, intersession, and/or summer courses are not included with these scholarships and/or awards:

## Trustee Scholarship

The Trustee Scholarship is awarded to highly qualified students in the top 5\% of the Manhattan College applicant pool

Presidential Scholarships are awarded to highly qualified students in the top $15 \%$ of the Manhattan College applicant pool. As a Presidential Scholar, you are invited to join Honors Enrichment Program.

## Dean's Award

Dean's Awards are offered to academically gifted students who fall slightly below Presidential Scholarship requirements, on a non-need basis. The award is granted at the discretion of the Admissions Committee upon admission to the College.

## Chancellor's Award

Chancellor's Awards are awarded to students with high academic performance, leadership ability, volunteer and community service work, and extra-curricular involvement. Amounts will vary, on a non-need basis. The award is granted at the discretion of the Admissions Committee upon admission to the College.

## Provost Award

The Provost Award will be awarded at the discretion of the Scholarship Committee. These are awarded to students with high academic performance, leadership ability, and extracurricular involvement.

## Founder's Award

Achievement, non-need based awards given to full-time undergraduate students. The award is granted at the discretion of the Admissions Committee upon admission to the College.

## GPA Requirements for Presidential Scholarship, Trustee's Scholarship, and Chancellor's Award:

A student must maintain an overall GPA of 3.0 for renewal of their academic scholarship. If the GPA falls below a 3.0 then the renewal amount will be based upon the chart below.

| GPA | Renew Amount |
| :--- | :--- |
| 3.0 | $100 \%$ |
| 2.9 | "Probation" |
| $2.8-2.899$ | $80 \%$ |
| $2.7-2.799$ | $60 \%$ |
| $2.6-2.699$ | $40 \%$ |
| $2.5-2.599$ | $20 \%$ |
| Below 2.5 | $0 \%$ |

The preceding chart is subject to change. If such a change occurs, it will be formally announced in advance.

## Need Programs

Manhattan College Grant-in-Aid: Manhattan College awards grants-in-aid to accepted students who demonstrate financial need. As with all types of grant aid, these awards are renewed annually and adjusted in line with changes on the FAFSA. These awards
are given for a maximum of four years (eight semesters). Grant recipients must maintain satisfactory academic progress. Full-time enrollment is necessary to receive a grant.

## Other Manhattan College Programs

Manhattan College Campus Employment Program: Manhattan offers its own campus work program to students who need employment to meet college expenses but are not eligible for Federal Work-Study. Although the program is not need-based, a FAFSA (and other application requirements described above) is required annually so the college can meet federal requirements to assure there is no remaining need that can be met by the federal government. Students' total aid including campus employment may not exceed the total cost of attendance.

Athletic Grants: The Manhattan College Athletics department may fund athletic grants to students who, by the possession of certain athletic skills, can add to the community spirit and morale of the campus. The College firmly states that recipients must come to Manhattan as students, with their first interest in studies. They must meet the same entrance requirements as other students and must maintain satisfactory academic progress. Manhattan adheres to and endorses the principles and policies of the Eastern College Athletic Conference and the National Collegiate Athletic Association. Athletic grants are counted as educational resources for determining the student's eligibility for financial aid.

Resident Assistant Grants: Awarded to students selected to serve as Resident Assistants in the dormitories. The Offices of Residence Life and Dean of Students select the recipients by application and interview during the Spring semester. Resident Assistants receive a grant in the amount of room and board charges with an ultimate meal plan.

Tuition Remission: An institutional non-need based program available to eligible Manhattan College employees, spouses of employees, and dependent children of employees, Eligibility is authorized and determined by the Human Resources Department. The amount of Tuition Remission a student will receive in a given academic year must be taken into consideration when determining a student's eligibility for federal and state aid programs. The College strongly encourages remission recipients to complete a FAFSA annually. Students receiving Tuition Remission are not eligible to receive other institutional grants or scholarships. It is the sole responsibility of the employee/student to review human resources policies and submit the remission forms by the published tuition deadline along with any fees not covered.

Tuition Exchange Scholarship: An institutional grant (tuition only) awarded to the dependents of eligible employees at a Tuition Exchange member institution of higher education. Contact the Office of Admissions and Financial Aid for more information.

## Veterans Administration (VA) Educational Benefits

All recipients of veterans' educational benefits must meet with the certifying officer after proceeding with an application for admission to Manhattan College, please forward your Certificate of Eligibility to Manhattan College's VA Certifying Official, Addie Newman, located in Thomas Hall, 3rd floor (718) 862-7382. The College will receive direct payment from the Department of Veterans Affairs.

The Yellow Ribbon GI Education Enhancement Program (Yellow Ribbon Program) allows institutions of higher learning (degree-granting institutions) in the United States to voluntarily enter into an agreement with the Department of Veterans Affairs (VA) to fund tuition expenses that exceed the highest public in-state undergraduate tuition rate. This tuition-benefit program includes both undergraduate and graduate study and either full- or part-time enrollment.
Title 38 USC 3679 (e) Compliance.
This will allow an individual to attend or participate in a program of education if the Chapter 31 or Chapter 33 Beneficiary provides the school with a "Certificate of Eligibility (COE)."

## Yellow Ribbon Benefit at Manhattan College

- Up to $\$ 27,120.05$ per year per student not to exceed the cost of tuition for the 2023/2024 academic year.
- Participation in Yellow Ribbon may preclude the student from eligibility for any other institutional awards.
- The Yellow Ribbon award amount is based on per-credit-hour tuition and allowable fees.
- Continuing eligibility is contingent upon good academic standing and remaining entitlement with the VA.


## Yellow Ribbon Eligibility Requirements

Only individuals entitled to the maximum benefit rate (based on service requirements) may receive Yellow Ribbon benefits from Manhattan and the VA. We strongly encourage you to review the eligibility criteria directly with the VA at 1-888-GIBILL1 (1-888-442-4551) or online at the VA website. Upon completion of the application, you will receive a Certificate of Eligibility advising you if your service meets the requirements for the Yellow Ribbon Program.

The Dept of Veteran Affairs offers the Rogers STEM Scholarship which can provide up to nine months of additional Post-9/11 GI Bill benefits (to a maximum of $\$ 30,000$ ) to qualifying Veterans and Fry Scholars seeking an undergraduate STEM degree or who have earned a STEM degree and are seeking a teaching certification.

Who is eligible for the Rogers STEM Scholarship?

- Students must be enrolled in an undergraduate STEM program requiring at least 120 semester (or 180 quarter) credit hours for completion or hold a Bachelor's degree in a STEM field and accepted or enrolled in a Teaching Certification program.
- Student must have completed at least 60 semester hours or 90 quarter credit hours toward the STEM degree;
- Student must have or will exhaust their Post-9/11 GI Bill entitlement within six months based on their current enrollment(s


## Endowed and Special Category Scholarships

Unless otherwise noted, the following private, endowed scholarships are awarded as part of the existing financial aid package. Where no specific criteria is listed, the College
reviews, in most cases, financial need, academic achievement, and participation in extracurricular activities on campus when awarding endowments or replacing institutional awards.

## Liberal Arts

Archbold Charitable Trust Scholarship: Founded in 1991 by a gift from The Adrian and Jessie Archbold Charitable Trust to provide tuition assistance to undergraduate students enrolled in the School of Arts who demonstrate high scholastic achievement and who have financial need.

The Anna Bendernagel Memorial Scholarship: Founded in 2005 by James '73 and Alicia Bendernagel to provide tuition assistance to women majoring in history who demonstrate financial need.

The Brian S. Broderick '82 Memorial Scholarship: Founded in 2001 by Mary and Michael Broderick in memory of their son. Financial aid will be provided to deserving undergraduates majoring in English and World Literature or in History who are in need of tuition assistance to complete their degree programs.

The Brother James X. Collins Memorial Scholarship: Founded in 1993 by the family and friends of Brother James X. Collins, Lasallian teacher, scholar and tireless worker for Manhattan College, for the people of East Africa and for peace and justice. Tuition assistance will be provided to undergraduate students enrolled in the School of Arts who demonstrate high scholastic achievement and who have financial need.

The Coyle Family Scholarship: Established in 2016 by Arthur J. Mahon '55 in memory of his wife's family to provide tuition assistance to students enrolled in the School of Liberal Arts who have demonstrated high academic achievement.

The Don Dunphy '30 Memorial Scholarship: Founded in 1999 by the family of Don Dunphy, broadcasting hall-of-Famer, to assist undergraduates majoring in communications.

The Professor June Dwyer Scholarship: Established by the Estate in 2016 to provide tuition assistance to high achieving students enrolled in a Humanities Program.

The Joseph P. Gibbons'57 Memorial Scholarship: Established in 2016 to provide tuition assistance to students enrolled in the School of Liberal Arts with a preference to graduates of St. Francis Prep, Queens, NY.

## The Jiri and Zdena Horak Scholarship

Founded in 2012 by Zdena Horak to honor her husband and his distinguished career as Professor, Chairman of the Council of Free Czechoslovakia, and later as Leader of the Czech Social Democratic Party. The scholarship will provide tuition assistance to undergraduates enrolled in the degree program in government and politics.

The Josephine and Dominic Laruccia Scholarship: Founded in 1999 by Stephen D. Laruccia '67, in honor of his mother and in memory of his father to provide tuition assistance to academically qualified and deserving students enrolled in the School of Arts who have unmet financial need.

The Brian Francis McCarthy '67 Memorial Scholarship: Established in 2008 by Gerald '65 and Lucile McCarthy to provide tuition assistance to financially needy students enrolled in the School of Arts.

The Brother Andrew O'Connor Memorial Scholarship: Founded in 1998 by the members of Sigma Beta Kappa Fraternity in memory of their Founding Moderator to provide tuition assistance to undergraduates enrolled in the School of Arts who are majoring in the humanities and who have financial need.

The Anne and George Skau '59 Scholarship: Established in 2008 by Anne and George Skau to provide financial aid to students who transfer from community college and who enroll in the School of Arts. Preference will be given to students pursuing a degree in history or peace studies.

The Patricia '87 and Mark VanDoninck '73 Scholarship: Established in 2017 to provide tuition assistance to students enrolled in the School of Liberal Arts who are majoring in the Peace Studies Program.

## Science

The Elinor A. Christopher Memorial Science Scholarship: Founded in 2004 to provide tuition assistance to young women who demonstrate financial need, and who are upperlevel students enrolled in a science degree program or the Radiological and Health Sciences Program for study in preparation for a career in health care.

The Colette Dans Memorial Scholarship: Founded in 2004 by Peter Dans ' 57 to provide tuition assistance to upper-level women pursuing a career in science or science education.

The Joseph Dottino MD '47 Scholarship: Founded in 2006 by Joseph Dottino MD '47 to provide tuition assistance to needy students enrolled full-time in a science degree program in preparation for acceptance in medical school.

The Andrew P. Ferry, M.D. '50 Endowed Scholarship: Established by Dr. Ferry's wife, Lynn Montemarano, this scholarship provides support for students in the pre-med track who have at least a 3.5 GPA in their major, preferably a rising senior.

The J. Claude Gaulin, MD '52 Memorial Scholarship: Founded in 2015 to provide tuition assistance to academically superior students who have unmet financial need and are enrolled in the School of Science.

The Ramon Joseph, M.D. '52 Scholarship: Established in 2016 to provide tuition assistance to upper-level students enrolled in the School of Science in preparation for a career in medicine.

The Magovern Family Scholarship: Founded in 2005 by members of the Magovern family to provide tuition assistance to upper-level students enrolled full-time in the school of science as preparation for a career in medicine.

The Madelyn and Frank Medici Pre-Med Scholarship: Founded in 2006 by Dr. and Mrs. Frank Medici to provide tuition assistance to needy students enrolled full-time in a preprofessional program in preparation for acceptance in medical school.

Evelyn and Jim O'Rourke Scholarship: Founded in 2005 by Dr. O'Rourke '39 to provide tuition assistance to needy students enrolled full-time in a science degree program in preparation for acceptance in medical school.

The Richard V. Robilotti '65 Scholarship: Founded in 2013 by Richard V. Robilotti in memory of his father, James G. Robilotti, Sr. MD, Class of 1922 to provide tuition assistance to full-time academically superior pre-med students as they prepare for acceptance to medical school.

The William D. Ryan '49 Scholarship: Founded by bequest in 2016 in memory of Brother Cyprian James Walton, F.S.C. to provide tuition assistance to students enrolled in a science degree program in preparation for acceptance in medical school.

## Dr. Robert Beardsley '50 Endowed Scholarship in Biology

Founded in 2006 by Dr. C. Lowell Parsons '66 in memory of Dr. Robert Beardsley '50, Professor of Biology, Department Chairman and Director of the Plant Morphogenesis Lab at Manhattan College from 1951-1977. It is available to biology majors.

The Brother Bernadine James Elliott, FSC, Memorial Endowed Scholarship
Established in 2014 by the Elliott family in memory of Br. Bernadine James Elliott, FSC, for computer science majors who are beginning their Junior year.

## The Jeremiah M. Haggerty '54 Endowed Scholarship

Established in 2018, the Scholarship will benefit a student from a single parent household, preferably with a Bronx residency, who is a mathematics major.

## The Eleanor H. English and James R. English Scholarship for Pre-vet/Pre-med Students

This Scholarship was established by the Estate of Eleanor H. English and supports a student aspiring to be a veterinarian, and preferably, attended a Catholic high school.

## The Audrey Pat and Francis E. Owens Memorial Scholarship

Established in 2018, by Linda and Dennis Fenton '73, the Scholarship will be awarded to a female student in the science program, preferably in her junior year, and in need of tuition assistance.

## The Thomas J. Smith Mathematics Scholarship

Established in 2018, the Scholarship will be awarded to an upper-level student majoring in mathematics. Professor Smith taught many generations of Jaspers for over 50 years before retiring.

## Business

The Walter C. Camas '52 Scholarship established in 2015 by Robert G. Pulver'69 in memory of his uncle to provide tuition assistance to upper-level students enrolled in the School of Business who demonstrate high academic achievement.

The Brother Raphael Cecchini Scholarship: Founded in 2007 by Robert M. Fink '57 to gratefully acknowledge his former teacher. Available to full-time students enrolled in the

School of Business who are in need of financial aid. To qualify for this award the student must hold a part-time job during the academic year.

The Brother Francis Charters Memorial Scholarship: Founded by William P. Twomey of the class of 1967 in memory of Brother Francis Charters, Dean of the School of Business from 1961-66.

The Dean Robert F. Vizza Scholarship: Established by Joan and Robert Vizza in 2014 to provide tuition assistance to academically superior students with unmet financial need who are enrolled in an undergraduate program in the School of Business.

The Forster Educational Foundation Scholarship: Founded in 1993 by The Forster Educational Foundation to provide tuition assistance to students with unmet financial need who are enrolled in an undergraduate program leading to a degree in accounting.

The Salvatore and Filomena Garofalo Family Scholarship: Founded in 2013 by Arthur Garofalo 'EE '65 in memory of his parents to provide tuition assistance to students enrolled in either the School of Business or the School of Engineering.

The Joseph E. Hanlon '58 Scholarship: Founded in 2000 by Joseph E. Hanlon, Class of 1958, in memory of his parents Joseph Hanlon and Anne J. La Cour. Financial aid will be provided to deserving undergraduates enrolled in the School of Business who are in need of tuition assistance to complete their degree programs and whose parents are not college graduates.

The KPMG-John F. Azzariti '73 Scholarship: Founded in 2012 by partners, retired partners and employees of KPMG LLP in memory of their esteemed colleague, John F. Azzariti. The scholarship will provide tuition assistance to a $4^{\text {th }}$ year student with a major in accounting; and who has been admitted to the B.S. in Professional Accounting/Masters of Business Administration Program.

The Emmett P. Lynch '66 Scholarship: Founded in 1998 by Emmett P. Lynch '66 to provide tuition assistance to permanent residents of New York City who are enrolled in the School of Business and who have need of financial aid.

The Richard J. Mahoney '50 Scholarship: In memory of Dennis R. Mahoney supports students with a declared major in the O'Malley School of Business.

The Robert Charles McGrail Scholarship: Established in memory of Robert Charles McGrail by his family and friends. Open to a Business junior or senior commuter who demonstrates academic achievement and manifests potential for leadership.

The Linda M. and Peter M. Musumeci, Jr. Foundation Inc. Scholarship: Established in 2004 to provide tuition assistance to students with demonstrated financial need, and who are upper-level students enrolled in the business degree program.

The Peter M. Musumeci, Jr and Linda M. Musumeci Scholarship: A full-tuition scholarship founded in 2007 by Peter M. Musumeci, Jr '72 and Linda Musumeci to assist needy students enrolled in the School of Business during his/her junior and senior year.

The Patricia A. and James P. Maguire '56 Endowed Scholarship
Established in 2019 by Patricia and James Maguire '56, the scholarship will be awarded to students who are enrolled in the O'Malley School of Business, who are first-generation in
their family to attend college, and with a preference to graduates of Cardinal Hayes High School.

The Professor Alfonse R. Petrocine Memorial Scholarship: Established in 2010 by Mona Petrocine in memory of her husband, Alfonse R. Petrocine to provide tuition assistance to students enrolled in a business degree program who have maintained a $\mathrm{B}_{+}$ average.

## The Walter R. Schnitzler '65 Endowed Scholarship

Established in 2017 by Walter R. Schnitzler '65 to assist upper-level students with need enrolled in the O'Malley School of Business, preferably in the Accounting program.

## The Donald C. Cacciapaglia '73 Endowed Scholarship

Established in 2017 by the Cacciapaglia family in memory of Donald C. Cacciapaglia '73. The scholarship is awarded annually to students enrolled in the O'Malley School of Business with a preference for those who are the first in their family to attend college.

## Band of Italian-American Brothers Endowed Scholarship

This Scholarship established in 2020 in memory of Steve Marino, Kevin O'Sullivan, and all others who have passed from the classes of '79 and '81. The Scholarships supports students of Italian-American heritage and with a declared major in the O'Malley School of Business.

## Education

The William J. Byron Memorial Scholarship: Established in memory of William J. Byron, class of 1974 by his family and friends to honor his achievements as an educator and athlete. The scholarship is intended to assist a deserving student majoring in physical education with an emphasis on work with handicapped children or special education children. The scholarship may be used by a handicapped student with the promise of academic achievement.

## The James Patterson "69" Scholarship

Established in 2015 by James Patterson '69' to provide tuition assistance to students enrolled in the School of Education and Health Sciences with a preference for students pursuing careers in education.

The Renee and Mike Regan '63 Scholarship: Established in 2017 to provide tuition assistance to students enrolled in the School of Education and Health.

The Rose E. and Margaret A. Scala Scholarship: Founded in 2007 by Anthony J. '75 and Mary Ellen Scala provides tuition assistance to students enrolled in the School of Education who are pursuing a career in secondary school math or science education.

Teacher Preparation Financial Aid Program: Responding to the national challenge to improve both elementary and secondary levels of education, this program was established by the College to attract academically gifted students into the teaching profession. The program continues Manhattan College's long tradition of preparing young people, especially those of modest means, for careers as teachers. It has been funded in part by a grant from the C.V. Starr Foundation as a memorial to their founder, the late Cornelius Vander Starr.

## Engineering

American Society of Civil Engineers Scholarship: Established in honor of Arthur J. Fox, Jr. '47 and in memory of Joseph S. Ward '46, who served respectively in 1976 and 1980 as National President of ASCE. This award provides tuition assistance to deserving undergraduates enrolled in the civil engineering program.

The John V. Avella '64 Memorial Scholarship: Founded in 1996 by Mary Ann Avella in loving memory of her brother, John V. Avella, Class of 1964. Tuition assistance will be provided to deserving students who are enrolled in the chemical engineering degree program, who have unmet financial need and who are citizens of the United States of America. Nomination by the chair and faculty of the Department of Chemical Engineering.

The Alexander Bette '31 Civil Engineering Scholarship: Founded in 2000 by Michael F. Bette in memory of his father to provide tuition assistance to deserving minority students enrolled in the civil engineering degree program who are graduates of New York City secondary schools.

The Francis R. Burde '49 Scholarship: Founded in 2004 by a bequest from the estate of Francis R. Burde to provide tuition assistance to deserving students enrolled in the environmental engineering program.

The Brother C. Timothy Burris Scholarship: Founded in 2002 by alumni of the chemical engineering program in honor of the former department chairperson and dean of the School of Engineering. Financial aid will be provided to deserving undergraduates majoring in chemical engineering who are in need of tuition assistance and who have demonstrated outstanding academic achievement.

The Corr-Schmidt Scholarship for Engineering: Founded in 2007 by Mary Corr in memory of her husband, Dr. Francis Corr B.EE. '54 and her father, John Schmidt B.E. '29. Provides tuition assistance to upper-level engineering students who are First-Generation College Students in need of financial aid.

## The Doris and Mario J. Catani '54 Endowed Scholarship

This Scholarship established in 2021 supports civil engineering students, preferably with a concentration in structural engineering.
D\&B Engineers and Architects, PC Founders Scholarship in honor of William F. Cosulich '49 and Nicholas Bartilucci '54: Established in 2011 to benefit students in need of tuition assistance who are enrolled in the environmental engineering program.

The William F. Cosulich '49 Memorial Scholarship: Established in 2018 to provide tuition assistance to students enrolled in the environmental engineering program

The Thomas Alva Edison Scholarship: Founded by the Consolidated Edison Company for minority undergraduate engineering students who are residents in the company's service area.

The Salvatore and Filomena Garofalo Family Scholarship: Founded in 2013 by Arthur Garofalo 'EE'65 in memory of his parents to provide tuition assistance to students enrolled in either the School of Engineering or the School of Business.

The John W. Gehrig '50 Scholarship: Established by Estate in 2016 to provide tuition assistance to high achieving students enrolled in the School of Engineering

The William '67 and Mary Harkins Endowment for Mechanical Engineering Senior Design Projects: Established in 2011 for the express purpose of supporting the mechanical engineering program's senior-class design projects.

The Edmund P. Hennelly Scholarship: Donated by Edmund P. Hennelly, Class of 1944. The scholarship will be awarded annually to a senior majoring in civil engineering who has maintained an above-average academic record, who demonstrates the promise of maintaining a high standard of professional ethics, and who has need of tuition assistance.

## The Professor Jeanette Brown '87 Endowed Scholarship

Established in 2019 by Professor Jeanette Brown '87, the scholarship will be awarded to students who are enrolled in the School of Engineering's Environmental Engineering Program.

The John F. Hoban Memorial Scholarship: Founded in memory of John F. Hoban, Class of 1951 Engineering, by the Society of American Military Engineers, New York City Post. Open to a deserving student in Engineering.

The Raymond J. Hodge Memorial Scholarship: Founded in 2000 by Lorraine Hodge Fox and Arthur J. Fox '47 in memory of Raymond J. Hodge '44 to provide tuition assistance to deserving students enrolled in the civil engineering degree program.

The John E. Hogan '40 Scholarship for Engineering: Founded in 2008 to provide tuition assistance to undergraduate engineering students who have demonstrated financial need.

The Christopher F. Hughes '74 Scholarship for Civil Engineering: Established in 2010 by Christopher F. Hughes'74 to provide tuition assistance to students enrolled in the civil engineering program.
The John J. Lennon '56 Memorial Scholarship: Established in 2017 by his Estate to provide tuition assistance to students enrolled in the Civil Engineering program.

The Stephen LePorisz '06 Memorial Scholarship: Established in 2010 by family and friends to provide tuition assistance to students enrolled in the mechanical engineering program.

The Robert J. Levine '43 Scholarship: Established in 2020 by his children this scholarship supports students with financial need with a major in engineering.

The Raymond M. Maliszewski ‘56 Memorial Scholarship: Founded in 2008 by his wife, Jean to benefit financially needy students enrolled in the School of Engineering's electrical engineering program.

The Robert G. McGrath '52 Scholarship for Engineering: Founded in 2008 to provide tuition assistance to financially needy engineering students, with preference given to those who participate in community service activities.

The Moles Scholarship: Founded in 1998 by members of The Moles to provide tuition assistance to deserving students enrolled in the degree program in Civil Engineering.

The Charles J. Moore, Jr., Memorial Scholarship: Established in memory of Charles J. Moore, Jr., class of 1970 Engineering, by his family and friends. Open to a junior or senior in Engineering who intends to pursue a career in electrical or mechanical engineering.

The James P. Moriarty '54 Scholarship for Civil Engineering: Founded in 2006 by family and friends to provide tuition assistance to needy students enrolled in the Civil Engineering Program, with preference given to those whose parent works in the construction industry.

The Patrick F. O'Leary '58 Scholarship: Established in 2003 by his wife and children in memory of Patrick F. O'Leary '58 to provide tuition assistance to needy students enrolled in the Civil Engineering degree program.

The James K. O’Neill '90 Memorial Scholarship: Founded in 2000 by the family and friends of James Keating O'Neill ' 90 . Tuition assistance will be provided to deserving undergraduates majoring in civil engineering who are in need of tuition assistance and who have demonstrated academic achievement worthy of recognition.

The Professor Joseph P. Reynolds Scholarship for Chemical Engineering:
Established in 2007 as a memorial by his family. The scholarship is available to a first year, full-time Chemical Engineering student, for four years, who demonstrates financial need and maintains good academic standing.

The Patricia A. and Charles W. Sullivan '60 Scholarship: Established in 2011 by a bequest from the estate of Charles W. Sullivan '60 to provide tuition assistance to students enrolled in the School of Engineering.

The Michael A. Vivirito '48 Memorial Scholarship: Donated by Anna and Fanny Vivirito in memory of their brother. The scholarship will be awarded annually to a junior majoring in engineering who is a graduate of a Catholic high school and has the need for tuition assistance. The award will be renewed in the senior year provided the student has maintained good academic standing and has the need for tuition assistance.

The James J. Wilson Family Scholarship: Open to students in Engineering who have completed two years of study, maintained good academic standing and are actively making a contribution to the life of the college through participation in athletics, student activities or co-curricular activities.

The Thomas B. Zoppo Scholarship: Founded in 1997 by the family of Thomas B. Zoppo. Tuition assistance will be provided to deserving students who are enrolled in a degree program in the School of Engineering and who have unmet financial need. Preference will be given to residents of New England states.

## The John H. Banks '85 Endowed Scholarship

Established in 2018, the Scholarship will be awarded to a minority student, who is a resident of Westchester County, in need of tuition assistance, and preferably, in the School of Engineering.

The Stanley T. Karachuk '57 Scholarship for Engineering

Established in 2018, the Scholarship will be awarded to a student in the engineering degree program in need of tuition assistance. Preference to students from All Hallows High School in the Bronx, NY.

## The Thaddeus L. Regulinski '50 Endowed Scholarship

This Scholarship was established by the Estate of Thaddeus Regulinksi '50 and supports students who are intellectually gifted with great financial need that are economically at or below the poverty line.
The Michael J. Ellsworth, Jr. '84 Endowed Scholarship
Established in 2021, by Janet E. Ellswoth '86 in memory of her husband, this Scholarship supports a junior or senior with a declared major in Mechanical Engineering.

## General

The ABCO Peerless Sprinkler Corporation Scholarship: Founded in 1998 by William G. Bowe '51 and Timothy W. Bowe '81. Tuition assistance will be provided to students electing to concentrate in Catholic Studies who are in need of financial aid.

The Myles J. Ambrose '48 Scholarship established in 2009 by Myles J. Ambrose to provide financial aid to needy students. Preference will be given to graduates of State of Virginia Catholic High Schools.

The Brother Gregory W. Nugent Endowed Scholarship: Established in 2020 through the Estate of James F. O'Neill, Jr. '57 in memory of Brother Gregory, a former President of Manhattan College, the Scholarship provides tuition assistance to students who graduated from P.S. 79 High School in New York.

The Gerard '63 and Susan Caccappolo Scholarship established in 2008 to provide financial aid to students of Hispanic origin with preference given to inner-city residents.
The Louis Calder Foundation Scholarship: Founded in 1993 by the Trustees of The Louis Calder Foundation to provide tuition assistance to deserving students residing in the City of New York who graduated from secondary schools located in the City of New York.

The Christian Brothers Scholarship: The Christian Brothers of Manhattan College sponsor scholarships for economically disadvantaged students for whom St. John Baptist de La Salle founded the Institute of the Brothers of the Christian Schools.

The Class of 1949 Scholarship: Founded in 1999 as a 50th Anniversary Class gift to provide tuition assistance to deserving students who otherwise might be unable to attend Manhattan College.
The Warren F. Donahue '42 Scholarship: Established in 2010 via a bequest from the estate of Warren F. Donahue to provide tuition assistance to students who graduate from Catholic high schools with a preference given to graduates of Mt. St. Michael H.S., Bronx, NY.

The DeFeo Family Scholarship: Established in 2006 by Neil and Sandy DeFeo to honor the memory of Noah DeFeo provides financial assistance based on demonstrated leadership, academic excellence and financial need.

The DiMartino Family Scholarship: Founded in 1995 by Joseph S. DiMartino '65 to provide tuition assistance to financially disadvantaged students.

The James Fennell Scholarship: Established by his family in memory of James Fennell, class of 1905. It is a four-year tuition and board scholarship intended to provide a complete educational experience to worthy students with financial need.

The Robert M. '57 and Mary W. Fink Endowed Scholarship: Founded in 2019 by The Gift of Hope Foundation, Inc, to provide tuition and room/board assistance for a student who attended Cristo Rey High School in Atlanta, Georgia, if available. The student must maintain good academic standing and hold a part-time job during the year.

The Kevin J. Frawley '90 Memorial Scholarship: Founded in 2004 by family and friends is available to graduates of local Catholic high schools who commute from home to Manhattan College and have a demonstrated need for tuition assistance.

The Ambassador Charles J. Gargano Scholarship: Founded in 1996 by the friends of Ambassador Charles J. Gargano, Class of 1979, to provide tuition assistance to academically talented, financially disadvantaged students. Preferential consideration will be given to the residence of Brooklyn, New York.

The Cornelius Heeney Memorial Scholarship: Founded in 1992 by the Brooklyn Benevolent Society to provide tuition assistance to an entering freshman who is a resident of Brooklyn, New York and who demonstrates financial need. Annual renewal of the scholarship is contingent upon the awardee's maintaining good academic standing.

The Horan Family Scholarship: Founded in 1999 by Julie and John J. Horan '40 to provide tuition and fees assistance to students in need of financial aid, with special emphasis on the children of parents who did not attend an institution of higher education.

The Michael J. and Aimee Rusinko Kakos Scholarship: Established in 2007 by Michael J. '58 and Aimee Rusinko Kakos to provide financial aid to graduates of Cardinal Hayes H.S. who have demonstrable financial need.

The Jeanne-Marie LaBlanc Memorial Scholarship: Established in 1993 by Elizabeth and Robert E. LaBlanc '56 in memory of their daughter, Jeanne-Marie, to provide tuition assistance to graduates of New Jersey high schools who have need of financial aid to secure their college education. Continuation of the scholarship requires that the student remains in good academic standing.

The Arthur J. Mahon '55 Scholarship: Established in 2016 by Arthur J. Mahon'55 to provide tuition assistance to academically superior students with unmet financial need who are enrolled in an undergraduate Liberal Arts, Science or Business degree program.

The James F. O'Neill, Jr. '57 Endowed Scholarship for the Stagehand Union/Music \& Theater: Established in 2020 this scholarship provides tuition assistance to a student who is a member of the Stagehand Union of NY, or a student studying in the Music \& Theater Department of the College.

The Kenneth '65 and Helene Orce Scholarship: Founded in 2006 by Kenneth Orce '65 to provide tuition assistance to students in need, preferably for graduates of Charles E. Gorton High School, Yonkers, New York.

The O'Rourke Family Scholarship: Founded in 1998 by John J. O'Rourke, Class of 1966, in memory of his parents, William and Catherine O'Rourke. Tuition assistance will be provided to students who are permanent residents of New York City and who have unmet tuition costs.

The Richard V. Robilotti '65 Merit Scholarship: Established in 2017 by Richard V. Robilotti' 65 to provide tuition assistance to upper-level students who have demonstrated strong academic achievement and have been active in volunteer services.

The Brother Luke Salm, FSC Scholarship: Founded in 2009 by William F. Zucker '79 to benefit financially needy students enrolled in either the School of Arts or the School of Engineering.

The Valeggia Family Scholarship: Established in 2008 by Ronald R. Valeggia '69 to provide tuition assistance to needy students. Preference will be given to graduates of Msgr. McClancy Memorial H.S., East Elmhurst, NY.

The John Vigiano, Jr. Memorial Scholarship: Established in 2002 by the Travelers Foundation in memory of John Vigiano, Jr., FDNY, who perished in the World Trade Center disaster. Scholarships will be awarded annually to students enrolled in a full-time baccalaureate degree program who are deemed in need of tuition assistance.

The Joseph Vigiano Memorial Scholarship: Established in 2002 by the Travelers Foundation in memory of Joseph Vigiano, NYPD, who perished in the World Trade Center disaster. Scholarships will be awarded annually to students enrolled in a full-time baccalaureate degree program who are deemed in need of tuition assistance.

Sportsmen for Charity Scholarship: Established in 2016 to provide financial assistance to deserving students at Manhattan College.

## The Dr. Richard Whiteside '69 Memorial Scholarship

Established in 2019 by Dr. Whiteside's family and friends. It is offered to a student(s) in need of tuition assistance and first generation in their family to attend college.

## The Smalley Foundation Endowed Scholarship

Established by the Smalley Foundation in 2019, this Scholarship was created in honor of Lewis H . Eslinger ' 50 to provide tuition assistance to deserving students with financial need.

## The Susie Van Hollebeke Scholarship

Established in 2018, this Scholarship provides tuition assistance to a student who is an engineering, business or science major, in their junior or senior year, with a minimum GPA of 3.0.

## Minority

The Frederic V. Salerno Scholarship: Founded in 1995 by Frederic V. Salerno '65 for minority students who are residents of New York City and are in need of financial aid.

The William Randolph Hearst Scholarship: Founded in 1996 by William Randolph Hearst Foundation to provide tuition assistance to academically talented, financially
disadvantaged minority students who intend to reside in the United States of America upon completion of their degree program.
N.S.S.F.N.S.: Manhattan College in cooperation with the National Scholarship Service and the Fund for Negro Students will offer several scholarships to students whose application comes through N.S.S.F.N.S. to stimulate the attendance of Black youth at the college. Value: Total value of all scholarships not to exceed $\$ 3000$ per year.

## R.O.T.C., Veterans, and Children of Past/Present Servicemen

Air Force R.O.T.C. College Scholarship Program: Scholarships are available to qualified undergraduate students. Applicants are selected on the basis of SAT scores, quality of academic work, and the results of a personal interview. For further information, contact the ROTC admissions officer at (718) 862-7201 or go to www.afrotc.com.

American Legion, Riverdale Memorial Post 1525 Scholarship: Established in 1986 by the American Legion Riverdale Memorial Post. The income from this scholarship fund will provide financial assistance, preferably to an individual who is serving or has served in the U.S. Armed Forces or for his/her dependent.

The Lieutenant Anthony John Turtora Memorial Scholarship: Established in memory of Lieutenant Anthony John Turtora, USMC, D.F.C., class of 1940, lightweight varsity crew stroke, by the Albert M. and Lyda M. Green Foundation and his classmates to honor his patriotism, loyalty and self-sacrifice. The scholarship is intended for students who demonstrate qualities of patriotism, leadership and academic ability. Preference will be given to students who have had past, or have present, honorable service with the U.S. military, including participation in an R.O.T.C. program. Past or present membership on the crew team is a preferential, but not a mandatory criterion. Lieutenant Turtora was killed in action in the Guadalcanal area on October 15, 1942 and was awarded posthumously the Distinguished Flying Cross for heroism and extraordinary achievement.

The Charles J. Wanzel III, USAF Scholarship: Established in 1992 by Charles J. Wanzel, Class of 1934, and Julia K. Wanzel in memory of their son, Captain Charles J. Wanzel III, USAF. Awarded to an entering freshman who is a U.S. citizen and the child of a member of the U.S. Armed Forces who was killed in action during military conflict or in the line of duty. This four-year scholarship is available to students majoring in engineering, the physical sciences or mathematics.

## Special Awards

The Brother Albert Paul Gladhill Scholarship: Founded by Roger J. Goebel of the class of 1957 in memory of Brother Albert Paul Gladhill. Awarded to a graduate of De La Salle Collegiate, Detroit, Michigan.

The Donald R. Broderick Memorial Scholarship: Established in memory of Donald R. Broderick, class of 1986, by his family and friends. The recipient will be a person of high ethical and moral standards who manifests superior effort in college preparatory studies and is in the top half of their high school class. In the event there is more than one highlyqualified candidate preference may be given to a student from Archbishop Stepinac High

School or from the Metropolitan Catholic High School League who has participated in high school athletics.

The Stephani Kopalik-Diaferia Scholarship: This scholarship will be awarded to a Mt. St. Ursula graduate entering college as a freshman. The student must have letters of recommendation from two teachers and a guidance counselor. Financial need may be considered but is not a requirement.

The James and Mary Houlihan Scholarship: Established in 2003 by their children to honor their parents and members of the Houlihan Family who were student-athletes. Tuition assistance will be provided to deserving student-athletes upon recommendation of the Director of Athletics.

The Carl H. Johnson III Memorial Scholarship: Founded in 1987 in memory of Carl H. Johnson III, the 1986 President of the Manhattan College Sophomore Class, by his fellow students, friends, associates, and family. This fund provides a partial scholarship award to a graduate of Christian Brothers Academy, Lincroft, New Jersey entering as a freshman who best exemplified the scholarship, talents, and spirit of Carl H. Johnson III, with preference given to a student entering Business.

The Michael '58 and Aimee Kakos Scholarship: Founded in 2002 by Michael and Aimee Kakos to encourage young Americans to understand and appreciate other cultures and peoples. Tuition assistance will be provided to deserving undergraduates who have been approved for a foreign study program.
The Mary Jane and James J. Lee '62 Scholarship: Established in 2013 to provide tuition assistance to high-achieving northern New Jersey high school students, who were recipients of scholarship awards through the Scholarship Fund for Inner-City Children. (SFIC)

Major John H. Mark, Jr. '00 Scholarship: Established in 2016 by family and friends to honor the memory of John H. Mark, Jr. This scholarship will provide tuition assistance to students accepted into a Study Abroad program who have an approved extra-curricular project in the form of community service, research or other experiential activity while abroad.

The Kate Anne McNeil '10 Memorial Scholarship: Established in 2010 by family, friends, and classmates to honor her memory. The scholarship is intended to enhance the cultural experience of students enrolled in a study-abroad program.

The Thomas J. Moran '74 Scholarship: Established in 2016 to honor Thomas J. Moran '74 upon his retirement as President and CEO of Mutual of America. The scholarship will provide tuition assistance to students with unmet financial need with a preference for students from Monsignor Farrell High School.

The Bob Otten '55 Basketball Scholarship: Established in 2007 to provide tuition assistance to members of the men's basketball team who are in need of financial aid.

The Coach Jim McHugh Scholarship for Track and Field Athletes: Founded in 2017 to help NCAA students who are members of the College's track \& field teams. Coach McHugh was a beloved Jasper coach from 1962-69 and coached 15 All-American athletes.

The Pascal Family Scholarship: Founded in 1994 by John H. Pascal '54 in memory of the deceased members of the Pascal Family. Tuition assistance will be awarded annually to a member of the men's basketball team upon recommendation of the Director of Athletics.

The Frederic V. Salerno Inner-City Scholarship: Founded in 1999 by Frederic V. Salerno '65 to provide tuition assistance to graduates of the Inner City Scholarship Program.

The Father Erwin H. Schweigardt '61 Scholarship: Founded in 1998 by Neva Mahoney. Tuition assistance will be provided to students who are permanent residents of the Capital District of New York State and who have unmet tuition costs.

## Academic Achievement

The Brother Berard O'Leary Scholarship: Established by Dr. and Mrs. Carl E. Miller only for ending sophomores who have made the greatest academic progress over their freshman year.

The '41 Jaspers Scholarship: Founded by members of the Class of 1941, this scholarship will be awarded annually to a senior who has maintained an above-average academic record, who has demonstrated loyalty to the College through extra-curricular activities and community service, and who has need of tuition assistance.

Tuition assistance awards are provided annually to students with financial need in memory of the following alumni and friends:
Anthony Albanese
Brother Aubert, FSC
Anthony Barbieri
Robert P. and Elise S. Barry
Jonathan Bednarek
Brother Phillip Beirne, FSC
Carol \& Michael Joseph Bernard
Colonel George J. Beyer, Jr.
Joseph A. Boehmer
John F. Brennan
Charles A. Buckley
John Byrne
Brother Amandus Leo Call, FSC
Dante Thomas Carota
Domenick Joseph Carota, MD
Angelo Charles Castelli
Brother Honeste Celestine, FSC
John and Mary Charters
John P. Chemidlin
Richard and Virginia Collins
Mary and Patrick Courtney
Charles Covino
Robert and Ramon DeCastro
Catherine De Naouley
George DeNaouley

Thomas F. De Naouley<br>Tamara Branzo-Dinh<br>Most Rev. Joseph P. Donahue<br>Warren and Edna Dornhoeffer<br>Catherine Murray Doyle and Sisters<br>John J. Duffy<br>William J. Dwyer<br>John K. Edgley<br>Henry Eipel<br>William Eipel<br>Catherine and George Favareau<br>John O'Donnell Feeks<br>Brother Defendant Felix, FSC<br>Mary Fennelly<br>Mary T. Finn<br>Frank A. Finnerty<br>Howard and Maxine Floan<br>James L. Fitzgerald<br>John Fuller Gordon<br>Daniel F. Gordon, Jr.<br>George and Helen Hochschwender<br>Edward Holub<br>Sarah A. Hundemann<br>Brother Gregory Hunt, FSC<br>Edward O. Hynard<br>Junius Kellogg<br>Fergus C. Kennedy<br>Br . Adrian Lewis<br>Robert J. Logan<br>Ambrose '34 and Margaret Lorne<br>James A. Loughran<br>Edward P. Lyons<br>John A. MacMillan<br>Martin and Alma Maglio<br>Joseph A. Mahoney<br>Charles J. Mauro<br>Thomas E. McEntegart<br>Joseph and Marie McGovern<br>Elizabeth Broch Milone<br>William J. Moffett<br>William F. Morris<br>Charles D. Morrissey<br>Edward J. Moylan<br>Virginia Casey O'Brien<br>Julette O'Rorke<br>Owen O'Rorke<br>Brother Adelphus Patrick, FSC<br>Jerry Podell<br>Thomas J. Ray

Robert "Red" Ronan
Ellen A. Rooney
Michael G. Rooney
Charles W. Secker
Arthur V. Sheridan
Ernest E. Stempel
Joseph Van Etten
Charles D. Vanier
Clarence Velz
Fred and Gertrude Weidl
Brother Bernard Alfred Welch
John J. and Anna C. Witmer
Catherine Wren
Anthony N. Zock '36
James L. Zock '38

## Research

The Louis F. Capalbo Business Research Fund: Established by Louis F. Capalbo of the class of 1941 to promote research by faculty and students in Business. The income from this endowment will provide support for faculty research projects which include students as research fellows as a complement to ongoing academic activity. Faculty will apply for support on a competitive basis, with the judgment made by the Dean of Business in concert with a review committee.

The Edward V. Branigan Research Endowment: Established by Edward V. Branigan of the class of 1940 to promote student creativity and scholarship in Arts and Sciences. Enrolled students or students and faculty will apply for support for specific annual competitions. Judgment is made by the Dean of Arts and the Dean of Science in concert with a review committee.

## Federal Financial Aid Programs

## Grants

Federal Pell Grant: This program provides direct grants from the federal government for educational expenses. Students must be enrolled for at least 3 credit hours and demonstrate eligibility according to federal guidelines. Students who hold a bachelor's degree are ineligible. The amount per year varies depending upon federal legislation and appropriations. The maximum annual award for 2023-2024 is $\$ 7,395$. Students must complete the Free Application for Federal Student Aid (FAFSA) and comply with all verification requests if selected.

Federal Supplemental Educational Opportunity Grant (SEOG): This program is funded by the federal government but eligible students are selected by the college. Awards up to $\$ 4,000$ annually are awarded to the students with the most determined need who are also eligible for the Federal Pell Grant. No separate application to the college is required. Funds in this program are also limited and continuing awards are contingent upon the SEOG budget provided to the College each year. Students must complete the Free

Application for Federal Student Aid (FAFSA) and comply with all verification requests if selected.

Federal Teacher Education Assistance for College and Higher Education (TEACH Grant): The TEACH Grant is a federal program that strives to encourage teachers into high-need teaching areas in K-12 low-income schools. It allows for a grant (not needbased) of up to $\$ 4,000$ per year for students in qualifying undergraduate and graduate programs in exchange for service as full-time highly-qualified teachers in a high-need field within a low-income school upon graduation. If the teaching service years are not fulfilled within eight years of graduating or leaving the qualifying program, the grant is converted into a Federal Direct Unsubsidized loan with interest and must be repaid in full. Teachers are responsible for gaining employment within these parameters by themselves. No formal assistance is provided by the College. To be eligible, students must be U.S. citizens or eligible non-citizens, have a documented score of at least the 75th percentile on any section of the SAT or ACT or have an overall GPA of at least 3.25, annually complete a FAFSA and Agreement to Serve (ATS) and entrance counseling, and enroll in a teacher certification program in one of the following areas offered at Manhattan: Foreign languages, Mathematics, Science (grades 5-9 and 7-12), Special Education, NYC teachers only for English (grades 5-9 and 7-12), and Physical Education. More information is available on the Student Financial Services website.

Federal Work-Study (FWS): This program is extended to students who have remaining financial needs after all other offered aid has been applied. Current hourly wage rates begin at $\$ 15.00$. A student may work up to 20 hours per week while classes are in session and up to 35 hours per week during vacation periods. Students must complete the Free Application for Federal Student Aid (FAFSA) along with a college application and employment forms. Department supervisors will interview and hire qualified students. Students can apply for direct deposit with the Payroll office or receive a paycheck. FWS funds are not credited to the student account. Students who are not eligible for FWS will be eligible for the college's Campus Employment Program.

Campus Employment Program(CE): This program is designed for students who are not eligible for the federal work-study program. The college pays student's wages. The same guidelines apply for wages and hours as the federal work-study program.

## Loans

Loans are another source of financial aid and must be repaid, with interest, with the exception of the Subsidized Stafford Loan and the Perkins loan. Borrowing for education is an important decision and students are encouraged to research all options thoroughly before borrowing from any loan program.

## Federal Loans

## Federal Stafford Direct Loans

Under the William D. Ford Federal Stafford Direct Loan Program, students borrow money from the federal government to pay for their college costs. The U.S. Department of Education makes the loans, through the College, directly to the students' tuition accounts. To be eligible for a Federal Direct Loan a student must be a U.S. citizen or permanent resident alien, enroll in at least six credit hours and be matriculated in an approved degree
program, not owe any refunds on a Pell Grant or other awards received, and not be in default on repayment on any type of student loan.

Each new student loan recipient will be required to complete entrance counseling and a master promissory note before a loan is processed and attend an exit interview when graduating or ceasing at least half-time enrollment in a term. Loan limits will vary on the Ioan's classification as a Subsidized or Unsubsidized loan and by the student's class standing (see below), but, students cannot borrow more than the cost of attendance less other financial aid. Fixed interest rates, origination fees, and rebate offers are announced by the government by July 1 of each academic year. Various repayment options (standard, extended, graduated, income-contingent) are offered and will be disclosed on the promissory note and during mandatory counseling. Repayment of Direct Stafford Loans processed on July 1, 2012, and thereafter will begin upon graduation, separation or termination as a half-time student.

There are two different types of Direct Stafford Loan:

1. The Subsidized Stafford Loan is awarded on the basis of need (determined by the cost of attendance, the expected family contribution, and all other financial aid). The government will pay the interest while the student is enrolled in school.
2. The Unsubsidized Stafford Loan is awarded to all eligible students regardless of need. Interest on this loan type, however, will accrue upon disbursement but there are options to defer the interest along with the principal of the loan until repayment on that loan begins.

Dependent students with freshmen status (up to 26 credits earned) may borrow up to $\$ 5,500$ per year with a maximum of $\$ 3,500$ of that amount offered as a Subsidized loan. Students with sophomore status (at least 27 credits earned) may borrow up to $\$ 6,500$ per year with a maximum of $\$ 4,500$ of that amount in a Subsidized loan. Students who have earned at least 60 credits may borrow up to $\$ 7,500$ with a maximum of $\$ 5,500$ of that amount in a Subsidized loan. A dependent undergraduate student may borrow up to an aggregate limit of $\$ 31,000$.

Independent students (must meet federal criteria) and students who have documented a parent's PLUS Loan credit denial for the academic year are eligible for additional Unsubsidized loans. Independent students with freshmen status who meet the criteria are eligible to borrow up to $\$ 9,500$ per year with a maximum of $\$ 3,500$ in Subsidized loans. Students with sophomore status may be eligible to borrow up to \$10,500 per year with a maximum of $\$ 4,500$ in Subsidized loans. Students with 60 or more earned credits are eligible to borrow up to 12,500 with a maximum of $\$ 5,500$ in Subsidized loans. An independent undergraduate student may only borrow up to an aggregate limit of \$57,500.

Federal Parent Loans (PLUS) Direct Loan: PLUS Loans are available to a parent of a dependent undergraduate student to assist with educational expenses. A credit application and promissory note are required annually and students must be enrolled at least half time and maintain eligibility for federal aid programs. A parent may borrow up to the cost of attendance minus any other type of financial aid. Fixed interest rates and origination fees are announced by the government by July 1 of each academic year. Repayment of parent loans begins 60 days after disbursement or repayment can be deferred while the student is enrolled full-time.

Loan proceeds are forwarded electronically to the Bursar's Office. The student will receive a notification when the loan proceeds are disbursed. Disbursements for an academic period are generally split between the Fall and Spring terms. All student borrowers must comply with mandatory entrance counseling.

## Private Education Loans

Private or Alternative Loans: are offered by lending institutions as additional sources of funds for higher education. Students are encouraged to exhaust all federal aid options before resorting to a private loan. Therefore, the college highly encourages a FAFSA application. The student will be the loan applicant and apply online directly with a lender. To determine the best lender, students might consider their creditworthiness, co-signer requirements and creditworthiness, interest rates, loan fees, loan limits, repayment period, repayment and deferment options, grace period offered and the general client service or reputation of the lender. For more information, please contact the lender. Manhattan College does not recommend specific lenders nor do we endorse one lender over the other. The College will provide general information and disclosure information for lenders that MC students have used in the past. Visit the Student Financial Services website for current information.

Code of Conduct Policy: Manhattan College enforces a code of conduct policy for all employees who are involved with the administration of federal student aid. The purpose of the policy is to prohibit conflicts of interest in situations involving student financial aid and to establish standards of conduct for employees with responsibility for student financial aid. Visit the Student Financial Services website for current information.

## Academic Progress and Program Pursuit for Federal and Manhattan College Grants, Loans and WorkStudy Programs

As an undergraduate student you must meet, at minimum, the following satisfactory progress requirements if you are the recipient of any of these federal or institutional aid programs:

- Federal Pell Grant (PELL)
- Federal Supplemental Educational Opportunity Grant (SEOG)
- Federal Work-Study
- Federal Direct Stafford Loan
- Federal Direct PLUS- Parent Loan for Undergraduate Students
- Manhattan College Institutional awards, grants, endowments
- Manhattan College Campus Employment


## Degree and Aid Time Limits

There is a maximum length of time set for completion of a degree program with the benefit of receipt of federal (excluding Pell grants) and/or Manhattan College financial assistance. The standards below provide the basis for academic progress for federal and Manhattan College aid recipients.

| Full-time student | Part-time student |
| :--- | :--- |
| 6 years | 12 years |

Students who first received a Federal Pell grant beginning with the Fall 1987 semester, please be advised that the maximum length of time set for you to receive a Pell grant is:

Full-time student
6 years

## Part-time student

10 years

## Satisfactory Academic Progress (SAP)

All students are required to maintain good academic standing to remain eligible to receive federal and institutional aid. The guidelines vary, depending upon the student's grade level and depending upon which form(s) of aid they are receiving. Good academic standing is measured by reviewing a student's quantitative and qualitative progress. The quantitative measurement ensures that students are making progress toward their degree goals, while the qualitative measurement ensures that students are succeeding in their coursework.

- All undergraduate students are required to have a cumulative average of 2.0 GPA at the end of each academic year.
- All undergraduate students are required to maintain a 2.0 for any institutional aid; this does not include scholarship aid.
- All graduate students are required to have a cumulative average of 3.0 or higher while earning a minimum number of credits to demonstrate good academic standing.
- Each School at Manhattan College may implement additional guidelines for satisfactory academic progress in their programs.

In additions to Manhattan College academic progress policy for all students, students who receive financial aid are subject to academic progress guidelines as outlined below:
I. Cumulative Grade Point Average (GPA): Students must maintain the required cumulative grade point average established by Manhattan College to continue enrollment and to be eligible for financial aid. Satisfactory progress will be measured for all coursework attempted and/or completed toward the student's degree.

| Attempted Credits + Transfer Credits | Cumulative GPA |
| :--- | :--- |
| $1-26$ | 2.0 |
| $27-59$ | 2.0 |
| 60 and above | 2.0 |

60 and above
2.0
II. Earned Hours (Compared to Attempted Hours): It is recommended that students attempt to earn at least two-thirds of the credits required per academic year in order to complete graduation requirements in four years. To remain eligible for financial aid, students must earn at least $67 \%$ of total cumulative hours attempted.

For financial aid purposes, the following definitions and conditions apply:

- To earn hours at Manhattan College, one must receive a grade of $A, B, C$, or $D^{*}$ (including " + " and "-"). All other grades, including F, I or W do not earn hours. *Certain grades will not fulfill the academic requirements of a student's major/ degree. Refer to the catalog section on grading policies.
- Classes from which a student withdraws after the drop/add period count as attempted but not earned hours. Therefore, withdrawing from classes after the drop/add period negatively affects students' ability to satisfy the hours earned standard.
- When a student repeats a course, the total attempted hours will increase with each repeat, but the student may only earn hours for a successfully completed course once. Therefore, repeating courses may negatively affect a student's ability to satisfy the hours earned standard.
- Accepted transfer credit counts as both attempted and earned hours.
III. Maximum Time Limit: To remain eligible for financial aid, undergraduate students must complete their degree requirements within 150 percent of the published length of their academic program. At Manhattan College, for example, this means that students in programs requiring 120 hours for graduation are eligible for financial aid during the first 180 attempted hours as an undergraduate. All attempted hours are counted, including transfer hours, whether or not financial aid was received, or the course work was successfully completed.

SAP Reviews: At the end of each semester, a review is completed, and students who are out of compliance with one or more of the SAP standards will be notified by the Dean and the Office of Student Financial Services. The College's policies on academic warning, probation and dismissal are cited under the Academic Standards and Procedures section of the catalog. Manhattan College may fund students during their probationary period.

Regaining Eligibility for Financial Aid: To regain eligibility, the student may attend summer school and/or any other terms necessary, without aid, until all deficiencies are remedied.

1. Cumulative GPAs can only be brought up by attendance at Manhattan College programs where credit is earned and grades are calculated for the grade point average.
2. Hours deficiencies may be made up by successfully completing coursework at Manhattan College or at another institution. However, if enrolling elsewhere, the student must complete the appropriate forms and have the coursework pre-approved by Manhattan College prior to enrolling in the other institution. Students must provide an academic transcript after transient study coursework has been successfully completed.
3. Maximum Time Frame: Once the Time Limit has been exceeded, aid eligibility ends, even if the student is in compliance with the other two standards. There is no regaining eligibility for aid as long as the student is an undergraduate.
Once students are in compliance with all three standards (are back in compliance with the first two standards and still in compliance with the third), they must notify the Financial Aid in writing to request a reevaluation of eligibility. This process cannot be done until all grades and hours are posted to the student's official record. No financial aid award can be calculated until after the review process is complete.

Appeals: Federal regulations allow for certain cases in which the school may waive the standards. Appeals for the waiver may be considered if a student's failure to comply with one or more areas of Satisfactory Academic Progress is due to mitigating circumstances. These must be appropriately documented for the specific term(s) in which the deficiency
occurred. Eligibility may be regained by appeal. Contact the Director of Student Financial Services and the Dean to process a Satisfactory Academic Progress (SAP) Appeal.

## State Aid

Many states sponsor loan and grant programs for eligible students. Contact your guidance counselor or your state office of higher education assistance for information about funds available from your home state and the availability of these funds for the out-of-state study.

## New York State

Tuition Assistance Program: New York State residents attending colleges in New York State are eligible for the Tuition Assistance Program (TAP) Awards through NYS HESC. The purpose of the Tuition Assistance Program is to give access and choice to all New York State residents according to the educational interests and needs of the student. The awards may be received for a maximum of eight semesters.

An annual application for TAP is required along with a completed Free Application for Federal Student Aid (FAFSA), which is available after October 1 of the academic year. Manhattan College's TAP code is 0405 for Bachelor Degree; Associate Degree, TAP code is 0407. (www.hesc.ny.gov)

Higher Education Opportunity Program: The HEOP program is a partnership between the State of New York and its independent colleges which provides economically and educationally disadvantaged residents the possibility of a college education. Contact the HEOP Office at the college for more details.

## Other NYS Scholarships and Awards

Contact NYS HESC for information on the following awards:

- Military Service Recognition Scholarships (MSRS)
- NYS Science Technology, Engineering and Math Scholarship (STEM)
- New York State Math \& Science Teaching Incentive Scholarship
- NYS Memorial Scholarships for Families of Deceased Firefighters, Volunteer Firefighters, Police Officers, Peace Officers, and Emergency Medical Service Workers
- NYS Scholarships for Academic Excellence NYS Volunteer Recruitment Service Scholarship
- NYS World Trade Center Memorial Scholarship
- Enhanced Tuition Award
- NYS Aid to Native Americans
- NYS Regents Awards for Children of Deceased \& Disabled Veterans
- Segal Americorps Education Award
- Veterans Tuition Awards
- NYS Achievement and Investment in Merit Scholarship (NY-AIMS)
- New York State Masters-in Education Teacher Incentive Scholarship Program


# Academic Progress and Program Pursuit for New York State Programs 

## Full-time TAP Recipients:

It is most important for all undergraduate full-time and part-time aid recipients to realize that a complete withdrawal from all classes during a particular semester will place the student's financial aid in suspension. The student will automatically become ineligible for financial aid for the following semester. If a student is considering withdrawing from all courses, please visit the Student Financial Services Office.

The Pursuit of Program: The Pursuit element expects the student to make an effort to complete the coursework undertaken pursuant to a State award. To satisfy the Pursuit of Program, a student must earn a passing or failing grade in a percentage of the minimum course-load in each term an award is received. The percentage increases from 50\% of the minimum part-time load in each term of the first year as the award are received, to $75 \%$ of the minimum part-time load in each term of the second year, $100 \%$ of the minimum parttime load in each thereafter. The pursuit requirement remains a continuous measure of a student's achievement.

## 1st Year of TAP Payment

$50 \%$ of a full-time program must be completed each semester ( 6 credits per semester)

## 2nd Year of TAP Payment

$75 \%$ of a full-time program must be completed each semester ( 9 credits per semester)

## 3rd and 4th Year of TAP Payment

$100 \%$ of a full-time program must be completed each semester ( 12 credits per semester)
You must meet these program pursuit requirements every semester in order to be eligible to receive your State aid the following semester.

Satisfactory Academic Progress: (TAP) is a measure of the student's achievement (credits earned). To make satisfactory academic progress the student must earn / successfully complete a minimum number of semester hours of credit with a minimum grade point average in accordance with the school's standard of progress that has been approved by the Commissioner of Education. A change in legislation in 2010 created a uniform chart used to determine a student's satisfactory academic progress. Their requirements must be met in each term an award is received. For APTS, students have two semesters to meet the Standard of Academic Progress requirements that full-time students must meet in one semester.

Before being certified for this payment the following requirements must be met:

| Semester | Minimum Credits | Minimum GPA Accrued |
| :--- | :--- | :--- |
| 1st | 0 | 0 |
| 2nd | 6 | 1.50 |
| 3rd | 15 | 1.80 |
| 4th | 27 | 1.80 |
| 5th | 39 | 2.00 |
| 6th | 51 | 2.00 |


| 7th | 66 | 2.00 |
| :--- | :--- | :--- |
| 8th | 81 | 2.00 |
| 9th* | 96 | 2.00 |
| 10th* | 111 | 2.00 |

*Note: Only students in five-year programs, approved pursuant to section 145-2.7 of the Regulations, are eligible for more than eight semesters of undergraduate awards.

A recipient of New York State aid who fails to meet the program pursuit of satisfactory academic progress requirements in a particular semester may wish to make up the necessary credits or achieve the required cumulative index by taking credits at his/her own expense in a given semester. If the student is then in good academic standing for receipt of New York State aid, the aid will be reinstated the following semester.

## Aid for Part-Time Study Recipients

Undergraduate students receiving New York State Aid for Part-Time Study (APTS) must also meet both satisfactory academic progress and program pursuit requirements. In order to be eligible for State aid the following semester, you must meet the program pursuit every semester.

Waivers for Extenuating Circumstances: A recipient of New York State aid who is able to document reasonable circumstances underlying the lack of academic progress in a particular semester can provide the documentation with a written appeal outlining such reasons to the Registrar's Office. This request, if granted, will be processed as a one-time waiver of the New York State satisfactory academic progress requirements and the grant will be permitted to disburse for that term. During the waiver semester, the student must make up the academic progress deficiency for the next term.

## Higher Education Opportunity Program ( HEOP)

Higher Education Opportunity Program: Under New York's Higher Education Opportunity Program (HEOP) academically and financially disadvantaged students may receive academic support and financial aid grants from both the college and the State to ensure college success. Contact the HEOP Office at the college for more details.

| Semester | Minimum Credits | Minimum GPA Accrued |
| :--- | :--- | :--- |
| 1st | 0 | 0 |
| 2nd | 3 | 1.10 |
| 3rd | 9 | 1.20 |
| 4th | 21 | 1.30 |
| 5th | 33 | 2.00 |
| 6th | 45 | 2.00 |
| 7th | 60 | 2.00 |
| 8th | 75 | 2.00 |
| 9th* | 90 | 2.00 |
| 10th* | 105 | 2.00 |

## Programs of Study

Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards. The following courses of study are registered and approved by The New York State Education Department:

## School of Liberal Arts

| Hegis Code | Major Areas of Study | Degrees Granted |
| :--- | :--- | :--- |
| 4901 | E3MC General Studies | CERT |
| 1003 | Art History | B.A. |
| 0601 | Communications | B.A. |
| 2209 | Criminology | B.A. |
| 1001 | Digital Media Art | B.A. |
| 2204 | Economics | B.A. |
| 1501 | English | B.A. |
| 4999 | Environmental Studies | B.A. |
| 1102 | French | B.A. |
| 1009 | Game Design \& Production | B.A. |
| 4901 | General Studies | B.S. |
| 2205 | History | B.A. |
| 2210 | International Studies | B.A. |
| 0516 | Labor Studies | B.A. |
| 4903 | Peace \& Justice Studies | B.A. |
| 1509 | Philosophy | B.A. |
| 2207 | Political Science | B.A. |
| 2001 | Psychology | B.A./B.S. |
| 1510 | Religious Studies | B.A. |
| 2208 | Sociology | B.A. |
| 1099 | Sound Studies | B.A. |
| 1105 | Spanish | B.A. |
| 2214 | Urban Affairs | B.A. |
| 0808 | Special Education/Childhood B.S. |  |
| 0802 | Education | B.S. |
| 0802 | Childhood Ed: Biology | B.A. |
| 0802 | Childhood Ed: Chemistry | B.S. |
| 0802 | Childhood Ed: English | B.A. |
| 0802 | Childhood Ed: French | B.A. |
| 0802 | Childhood Ed: General | B.S. |
| 0802 | Science | B.S. |
|  | Childhood Ed: General |  |
|  | Childhood Ed: Mathematics | B.S. |
|  |  |  |


| 0802 | Childhood Ed: Psychology | B.A. |
| :--- | :--- | :--- |
| 0802 | Childhood Ed: Social Studies | B.A. |
| 0802 | Childhood Ed: Spanish | B.A. |
| 0808 | Adolescent Education | B.S. |
| 0401 | Adol Ed: Teacher of Biology | B.S. |
| 1905 | Adol Ed: Teacher of <br> Chemistry | B.S. |
| 1501 | Adol Ed: Teacher of English | B.A. |
| 1102 | Adol Ed: Teacher of French | B.A. |
| 1701 | Adol Ed: Teacher of <br> Mathematics | B.S. |
| 1902 | Adol Ed: Teacher of Physics | B.S. |
| 2201 | Adol Ed: Teacher of Social <br> Studies | B.A. |
| 1105.1 | Adol Ed: Teacher of Spanish | B.A. |
| 0803 | Adolescent Education | B.A. |

Areas of Concentration: Computer Science, Economics, English, Government, History, Mathematics, Philosophy, Psychology, Religious Studies, Sociology

## O'Malley School of Business

| Hegis Code | Major Areas of Study | Degrees Granted |
| :--- | :--- | :--- |
| 0502 | Accounting | B.S. |
| 0501 | Business Administration | B.S. |
| 0503 | Business Analytics | B.S. |
| 0701 | Computer Information | B.S. |
|  | Systems |  |
| 2204 | Economics | B.S. |
| 0504 | Finance | B.S. |
| 0506 | Management | B.S. |
| 0509 | Marketing | B.S. |

## School of Health Professions

| Hegis Code | Major Areas of Study | Degrees Granted |
| :--- | :--- | :--- |
| 1299 | Exercise Science | B.S. |
| 1299 | Healthcare Administration | B.S. |
| 1225 | Nuclear Medicine | B.S./Certificate |
|  | Technology |  |
| 0835 | Physical Education | B.S. |
| 1214 | Public Health | B.S. |
| 1225 | Radiation Therapy <br> Technology | B.S./Certificate |
|  |  |  |

## School of Engineering

| Hegis Code | Major Areas of Study | Degrees Granted |
| :--- | :--- | :--- |
| 0906 | Chemical Engineering | B.S. |
| 0908 | Civil Engineering | B.S. |
| 0999 | Computer Engineering | B.S. |
| 0909 | Electrical Engineering | B.S. |
| 0910 | Mechanical Engineering | B.S. |

## Kakos School of Science

| Hegis Code | Major Areas of Study | Degrees Granted |
| :--- | :--- | :--- |
| 0414 | Biochemistry | B.A./B.S. |
| 0401 | Biology | B.A./B.S. |
| 1905 | Chemistry | B.A./B.S. |
| 0701 | Computer Science | B.A./B.S. |
| 0420 | Environmental Science | B.A./B.S. |
| 1009 | Game Design | B.S. |
| 1701 | Mathematics | B.A./B.S. |
| 1902 | Physics | B.A./B.S. |

## School of Continuing and Professional Studies

| Hegis Code | Major Areas of Study | Degrees Granted |
| :--- | :--- | :--- |
| 5649 | General Studies | A.S. |
| 2299 | Organizational Leadership | B.S. |

# Business - General Information 

Donald E. Gibson, Ph.D., Dean and Professor<br>Aileen Farrelly, Assistant Dean for Career Development<br>Rhonda Shuler, Senior Academic Advisor

## Historical Note

In September 1926, a two-year program of courses in Business was offered to qualified students who had completed two years in Arts and Sciences. The success of this program prompted the establishment of Business in the spring of 1927. Degrees of Bachelor of Science in Business were awarded to the first graduates of the program in June 1928. During the next two years the program of professional subjects was again revised and extended to a four year curriculum of business and cultural courses. The first class to complete this curriculum conducted totally within Business was graduated in 1932. In 1933, the degree designation was changed to Bachelor of Business Administration. In 1970, as a result of an extensive curriculum revision which emphasizes a balance of humanities, mathematics, science, social sciences, and professional business courses, the degree was changed to the Bachelor of Science (Business Administration). At the same time, the baccalaureate degree program in the Evening Session was merged into Business.

The O'Malley School of Business is accredited by AACSB International, the Association to Advance Collegiate Schools of Business, the premier accrediting agency for business programs globally.

## Our Mission

To provide a transformative education: We add value by developing business leaders with integrity, intellectual curiosity, global consciousness, and a desire to change their community and the world for the better.

## Our Vision

To be an innovative, inclusive Lasallian leader in business education: We are recognized as advancing knowledge through research, expanding minds through teaching, drawing on the vibrancy of business to make an impact on New York and beyond.

## Curriculum and Programs

In order to accomplish the mission of Business, the curriculum is structured to achieve a balance of liberal arts courses and professional business courses, thus bringing together liberal education and professional business preparation. The program in liberal arts is divided among the areas of humanities, mathematics, sciences, and social sciences. The professional business program, which includes core courses required of all students and the study of a major field, offers the student both theory and application to practical problems. This approach increases students' ability to reason and analyze situations in the business context of the 21st century, thus helping them understand how today's challenges -- from technology to climate change -- are addressed in real business
organizations. The societal considerations of the firm and the behavioral aspects of the managerial function are interwoven throughout the business curriculum. The focus in the professional area is on executive action in business and non-business organizations.

The program of liberal arts courses, which comprises one-half of the total curriculum, blends humanistic knowledge with professional career preparation. The sequence of general business-related courses examines topics of broad business knowledge and practice. The sequence includes introductory courses in accounting, economics, computer information systems, law, statistics, management, marketing, finance and operations. In each of these courses, emphasis is placed on essential analytical tools and their use in solving business problems. Course work emphasizing strategic planning, societal development, and global business is also included to help prepare students to enter a career in a functional field or undertake graduate studies. The major disciplines are accounting, business analytics, computer information systems, economics, finance, management, and marketing. Global Business Studies may be taken as a co-major or as a minor.

## Undergraduate Learning Goals

1. Communicate effectively through writing and oral presentations.
2. Demonstrate global learning.
3. Employ quantitative skills in problem-solving to support decision-making
4. Understand how to incorporate ethics into business practices.
5. Demonstrate an ability to think critically by analyzing business situations and recommending appropriate actions.

## Majors

The business curriculum provides seven major fields of study from which the student can select one or more for in-depth study. A student who opts to major in two areas must complete the requirements for both majors. Students may use business and free electives towards the second major.

## Accounting

The major in accounting centers on financial and operational communications for business and governmental units. The program prepares students for careers in public accounting, industrial or private accounting, governmental and institutional accounting, or for a general business career. Accounting education provides a sound basis for advancement to managerial positions and is a desirable background for other non-business professions, such as law.

Students who want to follow careers in public accounting should pursue the five-year B.S. in Professional Accounting/MBA Program. All accounting students should speak to their academic advisor about eligibility for the New York State CPA examination and the fiveyear program requirements.

## Business Analytics

Using data, Business Analytics helps organizations evaluate their performance, gain operational insight, improve decision making and forecast market trends. It combines the study of analytical and statistical data analyses, data management, modeling and visualization. The underlying analytics tools and techniques emerge from a variety of disciplines such as operations research, statistics, computer science and traditional business fields. The Business Analytics major allows the student to develop the skills needed to pursue a data-related career in financial services, healthcare management, telecommunications, retail, media, or one of the many other industries where data analytics skills are in high demand.

## Computer Information Systems

A CIS major enables a student to determine the informational needs of an organization and identify the patterns of information flow which satisfy those needs. The program includes studies in computer hardware and software, programming, computer decision systems, file and communication systems, operations analysis and simulation, management information systems, and the analysis and design of information systems. The CIS major will find excellent career opportunities in systems analysis and management information systems. Combining the CIS knowledge with business functional areas such as accounting, finance, marketing, or management, provides the CIS graduate with a competitive advantage in careers related to system development and analysis.

## Economics

A major in business economics is designed for those students whose primary interest is oriented towards an examination of economic relationships. Students seeking a broad global economic background for government, industry, or law would benefit from this program. Students are able to choose one of three concentrations: quantitative economics, applied economics, or environmental economics. This program is also suitable for students who are interested in pursuing graduate studies in Economics.

## Finance

The major in finance enables the student to examine the tasks and techniques of financial management within business and government units and to study the structure of financial institutions and analytical instruments. Course work emphasizes the knowledge and tools needed to understand and participate in the global economic system. The program stresses financial analysis and decision-making and prepares students for careers in financial management and analysis.

## Management

The management program examines theories and concepts of organizations, describes the skills used by managers in fulfilling their roles and functions, and provides an opportunity for students to apply quantitative methods to solve management problems. The major emphasis is on behavioral aspects of organizations and administrative actions, in both business and nonprofit organizations. Special attention is given to the social responsibilities of the business executive, the ethics of decision-making, and the role of the modern corporation in society. Students also learn to master the latest technologies,
which allows them to graduate with a functional knowledge of the tools that will be used in their careers. Students can choose to complete a concentration in Talent Management or Behavior and Decision Making.

## Marketing

Marketing is essential for the effective managing of both for-profit and nonprofit organizations. Marketing involves creating products and services, communicating their value, and managing customer relationships based on a thorough understanding of customers' needs and wants. The tasks of marketing managers include determining the firm's competitive market position and strategy, and formulating the optimum marketing mix: the product portfolio, communication, pricing and distribution strategies.

The marketing program emphasizes a managerial approach and is designed to train marketing professionals who are globally-oriented business leaders. The curriculum stresses analysis, critical thinking and decision making in the marketing process.

## Co-Major

## Global Business Studies

This co-major develops in the student a thorough and rigorous global perspective and understanding of the international environment and markets. Such understanding is essential for any business person who competes domestically and in the international arena. This field is interdisciplinary in nature and includes studies in business, communication, political science, and sociology. Students who are interested in pursuing careers in the international aspects of business or in government may complete the program as a second, co-major. Proficiency in a second language is strongly recommended.

## Minors for Business Students

In order to provide an opportunity for students to broaden their educational experiences, students in Business are able to minor in another business area such as management, marketing, business analytics, CIS, economics, finance, and accounting. This program consists of three courses in the discipline. Details of these programs may be found under the separate headings for each department in the business school.

Through special arrangements with Liberal Arts and Sciences, a business student may take a minor program consisting of approximately 15 credits in the humanities, mathematics, sciences, or social sciences. Business students who are interested in pursuing a minor outside the school of business must contact the academic advisor of the school for further information.

All major and minor credits must be taken at Manhattan College. A minimum grade of $C$ is necessary to receive major or minor credit. Also, all 300 and 400 level Business courses must be taken at Manhattan College.

## Minors for Non-Business Majors

Students who are in Schools other than Business may pursue a minor in Business. Students must obtain the permission of the School in which they are enrolled. The minor
in Business for non-business majors requires the completion of 15 credits. The five course sequence consists of:

| ACCT 201 | Principles of Accounting I | 3 |
| :--- | :--- | :--- |
| ECON 203 | Microeconomics | 3 |
| MGMT 201 | Introduction to Management | 3 |
| MKTG 201 | Essentials of Marketing | 3 |
| Business Elective (with proper prerequisites) | 3 |  |

Total Credits 15

Students in the Business minor who are specifically interested in Finance may select FIN 301 Principles of Business Finance as their elective, but must meet the prerequisite for the course, BUAN 227 Business Statistics, or its equivalent. Students interested in a minor in Business must consult with the School of Business advisor.

Non-Business majors may also pursue 15-credit minors in specific areas of business such as Economics, Finance, Management, and Marketing. Please consult the department section of the catalog for more information. The specific area minor must be approved by the chair of the department.

## B.S./M.B.A.

The B.S. Business / Masters of Business Administration Program offers business students an option to complete a five-year multiple award program. The successful completion of the five-year program leads to two awards: a B.S. in Business (in one of seven business majors) and an MBA. The program consists of a total of 150 hours in undergraduate and graduate credits, planned over a five-year period, including coursework during ten semesters and one summer session. The program is designed for students who are academically competitive. Students may use the free electives to commence with the masters level classes in their fourth year.

## Advisement

Advisement for students in Business is conducted by the Senior Academic Advisor in conjunction with the Department Chairs and faculty. The Senior Academic Advisor counsels all first-year students, sophomores, and transfer students, as well as any juniors and seniors when necessary. All students select their major at the end of their sophomore year. Programs of study for first-year students, sophomores, and transfer students, as well as co-approval of athletes, are approved by the Senior Academic Advisor. Programs of study for juniors and seniors are approved by the Department Chairs who act as advisors to the students in selecting a major. Department Chairs and faculty are responsible for advising upper level students. The faculty are closely associated with professional business organizations and industrial groups carrying out related activities, thus assuring maximum service to the student in preparing to meet the requirements for the degree, for advanced professional study, and for placement.

Business students who plan to enter law should consult with the Prelaw Advisor. The Advisor will guide the students through the preparation and application process required for law school admissions.

## Internships

Students in the O'Malley School of Business are encouraged to complete a business internship. Students can complete an approved internship experience for academic credit. Interested students must consult with the Assistant Dean for Career Development for guidance on the process of securing an appropriate internship and obtaining the required faculty sponsorship. Faculty supervisors will define appropriate academic activities in parallel to the work requirement in order to provide a complete internship experience. Credit bearing internships must be approved by the Department Chair, the Dean, and the Assistant Dean for Career Development.

## Student Organizations

Organizations of special interest to students in Business include: The Accounting Society; Beta Alpha Psi, the International Honor Society for Financial Information Professionals; Beta Gamma Sigma, the National Honor Society in Business; the Business Analytics Data Society; Alpha Iota Delta, the National Honor Society for Computer Information Systems and Decision Sciences; the Economics-Finance Society; Omicron Delta Epsilon, the National Honor Society in Economics; the Entrepreneurship Club; Financial Management Association; the National Honors Society in Finance; Fair Trade Fuel, the student-run business; the Investment Club; the Management Club; Sigma Iota Epsilon, the National Honor Society in Management; the Marketing Club; American Marketing Association, Student Chapter; Mu Kappa Tau, the National Marketing Honor Society; the Women in Business Club.

## Study Abroad

Students interested in studying abroad should discuss their interest with the Senior Academic Advisor by the beginning of sophomore year. Students may opt to study abroad for either a full semester or on one of the College's short-term programs during the winter intersession or summer break. If planning to go abroad for a full semester, it is best to plan the semester of study abroad for the second semester of sophomore year or the first semester of junior year. Further information about study abroad opportunities is available through the Study Abroad Office. The O'Malley School of Business also sponsors a study tour, linked to a course, GLBL 414 International Field Study Seminar, conducted once a year for three credits. The course can be used towards fulfilling the requirements of the Marketing major, Global Business Studies co-major, or as one of the student's free or business electives.

## Curriculum

## I. Liberal Arts and Science Courses

A. Humanities Courses

ENGL 110 First Year Composition 3
CIS 110 Introduction to Information Systems 3
ENGL 211 Business Communication 3
ENGL Literature Elective 3
PHIL 201 Ethics 3
RELS 110 The Nature and Experience of Religion ..... 3
RELS Elective 200 Level ..... 3
RELS Elective 300 Level ..... 3
B. Social Sciences Courses
ECON 203 Microeconomics (Microeconomics) ..... 3
ECON 204 Macroeconomics (Macroeconomics) ..... 3
HIST History Elective ..... 3
PSYC 203 Introduction to Psychology ..... 3
SOC 201 Introduction to Sociology ..... 3
C. Mathematics and Science Courses
MATH 153 Finite Mathematics for Business Decisions ..... 3
MATH 154 Calculus for Business Decisions ..... 3
SCI Science Elective ${ }^{1}$ ..... 6
Liberal Arts Elective ${ }^{2}$ ..... 9
Total Credits ..... 601 Science requirements: 6 credits from the following: Astronomy \& Earth Science 201,202, Science 203-204, Science 207; other science courses only with the approval of thedean and chair of the department.
2 Approved Arts and Science courses.
II. Business Courses
A. Business Core Program for all Students
ACCT $201 \quad$ Principles of Accounting I ..... 3
ACCT 202 Principles of Accounting II ..... 3
BUAN 227 Business Statistics ..... 3
FIN 301 Principles of Business Finance ..... 3
ECON 305 Money and Banking ..... 3
LAW 203 Business Law I ..... 3
MKTG 201 Essentials of Marketing ..... 3
MGMT 201 Introduction to Management ..... 3
MGMT 307 Operations and Quality Management ..... 3
MGMT 406 Strategic Management ..... 3
MGMT 430 Business, Government, and Society ..... 3
Total Credits ..... 33
B. Business Program for Non-Accounting Majors
Major Field ..... 21
Free Electives ..... 6
Business Core Courses ..... 33
Total Credits ..... 60
*Students interested in pursuing the five-year B.S./MBA program can use the free electives in their senior year to complete courses toward the MBA program.
C. Business Program for Accounting Majors
Accounting Major Courses ..... 27
Business Electives ..... 3
Business Core Courses ..... 33
Total Credits ..... 63*Students interested in pursuing the five-year B.S./MBA program can use the businesselective in their senior year to complete a course toward the MBA program.
Total Credits for Graduation:
Non-Accounting Majors ..... 120
Accounting Majors ..... 123Business students who are interested in pursuing a minor outside the O'Malley School ofBusiness must contact the senior academic advisor of the school for further information.

## Accounting, Business Analytics, CIS \& Law

# Accounting, Business Analytics, Computer Information Systems \& Law (ACCT/BUAN/CIS/LAW) 

Dr. Mehmet Ulema<br>Chair of the Department


#### Abstract

The Department of Accounting, Business Analytics, Computer Information Systems, and Law (ACCT/BUAN/CIS/LAW) offers a broad choice of courses and three majors: Accounting, Business Analytics and Computer Information Systems. The department also offers courses in Business Law required for students in the O'Malley School of Business.


Accounting is often described as the language through which entities communicate financial information to various stakeholders. The program provides students with the skills that prepare them for accounting careers in business and not-for-profit organizations. Qualified students specifically interested in public accounting may pursue the B.S./MBA Professional Accounting Program. The program is registered with the State of New York as a Professional Accounting Program geared toward obtaining the Certified Public Accountant (CPA) license.

Using data, Business Analytics helps organizations evaluate their performance, gain operational insight, improve decision making and forecast market trends. It combines the study of analytical and statistical data analyses, data management, modeling and visualization. The underlying analytics tools and techniques emerge from a variety of disciplines such as operations research, statistics, computer science and traditional business fields. The Business Analytics major allows the student to develop the skills needed to pursue a data-related career in financial services, healthcare management, telecommunications, retail, media, or one of the many other industries where data analytics skills are in high demand.

The Computer Information Systems major emphasizes the use of computers in aiding business professionals to perform their functions in modern organizations. The program emphasizes important technical and applied skills and prepares students for a variety of careers in management information systems and technology.

Every major in the department should consult with the Chair concerning the fulfillment of the requirements for the major and the electives that will be most suitable for his/her particular professional and academic development.

## Accounting (ACCT)

Requirements for a major in Accounting:

| LAW 304 | Business Law II | 3 |
| :--- | :--- | :--- |
| ACCT 301 | Intermediate Accounting I | 3 |
| ACCT 302 | Intermediate Accounting II | 3 |
| ACCT 303 | Cost Accounting | 3 |


| ACCT 350 | Accounting Information Systems | 3 |
| :--- | :--- | :--- |
| ACCT 401 | Auditing | 3 |
| ACCT 405 | International and Advanced Issues in Accounting | 3 |
| ACCT 409 | Federal Income Taxation I | 3 |
| Select one of the following courses: | 3 |  |
| ACCT 410 | Federal Income Taxation II |  |
| ACCT 435 | Accounting Field Study Internship | 3 |
| Business Elective |  | 3 |

Total Credits

* Required for students who are continuing with the five-year B.S./M.B.A. Professional Accounting Program.

A minimum grade of $C$ is necessary to receive major credit.
Recommended course sequence for Accounting majors:
First Year
Fall
ACCT 201
RELS 110 or ENGL 110
PHIL 201 or SOC 201
PSYC 203 or CIS 110
MATH 153

## 教

Credits Spring
Credits
3 ACCT 2023
3 ENGL 110 or RELS 1103
3 SOC 201 or PHIL 2013
3 CIS 110 or PSYC 2033
3 MATH 1543
15

## Second Year

Fall
ECON 203
Credits Spring
Credits
3 ECON 2043
ENGL 211 or BUAN 227
MKTG 201 or MGMT 201
ACCT 301
ACCT 303
3 BUAN 227 or ENGL 2113

3 MGMT 201 or MKTG 2013
3 ACCT 3023
3 ACCT 3503
15

## Third Year

Fall
Credits Spring
Credits
RELS Catholic Studies or ENGL
Elective
SCI Elective
3 ENGL Elective or RELS Catholic 3
Studies
3 SCI Elective 3
3 ECON 3053
3 FIN 301 or MGMT 3073
3 ACCT 4053
Liberal Art Elective 3

| Fourth Year |  |  |
| :--- | :---: | ---: |
| Fall | Credits | Spring |
| LAW 304 | 3 HIST Elective | Credits |
| ACCT 409 | 3 ACCT Elective/Internship* | 3 |
| RELS Global/Contemporary | 3 MGMT 430 or 406 | 3 |
| MGMT 406 or 430 | 3 Liberal Art Elective | 3 |
| Liberal Arts Elective | 3 Business Elective | 3 |
|  | $\mathbf{1 5}$ | 3 |

Total Credits: 123
*Must be ACCT 410 for students pursuing the five year BS/MBA in Professional Accounting. Students interested in this program must consult with their academic advisor.

## Accounting Minor

Students enrolled in the O'Malley School of Business who wish to minor in Accounting must complete the following in addition to the core courses required of all students in Business:

| ACCT 301 | Intermediate Accounting I | 3 |
| :--- | :--- | :--- |
| Two of the following: |  | 3 |
| ACCT 302 | Intermediate Accounting II |  |
| ACCT 303 | Cost Accounting |  |
| ACCT 350 | Accounting Information Systems |  |
| ACCT 401 | Auditing |  |
| ACCT 409 | Federal Income Taxation I |  |
| A minimum grade of C is necessary to receive minor credit. |  |  |
| The Accounting program offers core courses required of all Business students. All |  |  |
| students are required to take: |  |  |
| ACCT 201 | Principles of Accounting I | 3 |
| ACCT 202 | Principles of Accounting II | 3 |

## Accounting Program Learning Goals

LG1. Demonstrate technical competency in core areas of accounting - financial accounting, managerial accounting, auditing, federal income taxation and business law.

LG2. Demonstrate competency in solving accounting problems through researching authoritative literature and applying analytical skills.

LG3. Demonstrate awareness of ethical issues in accounting.
LG4. Demonstrate proficiency in accounting technology.

## Business Analytics (BUAN)

Requirements for a major in Business Analytics:
BUAN/CIS 205 Introduction to Programming for Business Applications ..... 3
BUAN/CIS 310 Business Data Management ..... 3
BUAN 327 Advanced Business Statistics ..... 3
BUAN 410 Data Mining for Business Applications ..... 3
BUAN 427 Artificial Intelligence and Machine Learning ..... 3
Approved BUAN or CIS Electives ..... 6
Total Credits ..... 21
A minimum grade of $C$ is necessary to receive major credit.
Students majoring in Business Analytics are encouraged to complete a business internship. Students can complete an approved internship experience for academic credit. Free Elective credit may be used to complete BUAN 375 Assimilating the Internship Experience in Business Analytics. Interested students must consult with the Assistant Dean for Career Development for guidance on the process of securing an appropriate internship and obtaining the required faculty sponsorship. Faculty supervisors will define appropriate academic activities in parallel to the work requirement in order to provide a complete internship experience. Credit bearing internships must be approved by the Assistant Dean of Career Development, Department Chair, and Dean.
Recommended course sequence for Business Analytics majors:

## First Year

Fall Credits Spring Credits
RELS 110 or ENGL 110
ECON 203 or ACCT 201
3 ENGL 110 or RELS 110
MATH 153
PSYC 203 or CIS 110
3 ECON 204 or ACCT 2023
3 MATH 154 ..... 3
PHIL 201 or SOC 201 3 SOC 201 or PHIL 201 ..... 33 CIS 110 or PSYC 2033
15 ..... 15
Second Year
Fall Credits Spring CreditsACCT 201 or ECON 203
3 ACCT 202 or ECON 204 ..... 3
3 MGMT 201 or MKTG 201 ..... 3
MKTG 201 or MGMT 201
3 BUAN 227 or ENGL 211 ..... 3
3 BUAN/CIS 205 or SCI Elective ..... 3
SCI Elective or BUAN/CIS 205
3 HIST Elective or Law 203
3 HIST Elective or Law 203 ..... 3 ..... 3
LAW 203 or HIST Elective
LAW 203 or HIST Elective ..... 15
Third Year
Fall Credits Spring Credits
BUAN/CIS 310
ENGL Elective or RELS Catholic3 BUAN 3273
Studies
ECON 305 3 RELS Catholic Studies or ENGL ..... 3
3 BUAN 410 (Or BUAN Elective) ..... 3Elective


BUAN 227 Business Statistics 3

## Business Analytics Program Learning Goals

LG1. Demonstrate technical competency in core areas of Business Analytics: acquire, repurpose, manipulate, visualize and analyze data.

LG2. Demonstrate proficiency in the high-level programming language Python.
LG3. Understand how and when to apply Machine Learning Models to Business Analytics problems.

LG4. Show awareness of emerging issues in Business Analytics, such as privacy, blockchain, and cloud computing.

## Computer Information Systems (CIS)

Requirements for a major in Computer Information Systems:


Recommended course sequence for Computer Information Systems (CIS) majors:

## First Year

## Fall

## Credits Spring

Credits
ECON 203 or ACCT 201
RELS 110 or ENGL 110
3 ECON 204 or ACCT 2023

PHIL 201 or SOC 201

PSYC 203 or CIS 110
3 ENGL 110 or RELS 1103
3 SOC 201 or PHIL 201 ..... 3
MATH 153 3 MATH 154 ..... 33 CIS 110 or PSYC 20331515
Second Year

## Fall

ACCT 201 or ECON 203
ENGL 211 or BUAN 227
MKTG 201 or MGMT 201
HIST Elective or Law 203
CIS 201 or 211

Credits Spring
Credits
3 ACCT 202 or ECON 2043
3 BUAN 227 or ENGL 2113
3 MGMT 201 or MKTG 2013
3 CIS/BUAN 2053
3 LAW 203 or HIST Elective 3
15

## Third Year

Fall
MGMT 307 or FIN 301
Credits Spring
Credits
3 FIN 301 or MGMT 307


Total Credits
A minimum grade of $C$ is necessary to receive minor credit.
The Computer Information Systems program offers core courses required of all Business students. All students are required to take:

CIS 110 Introduction to Information Systems

## Computer Information Systems Learning Goals

LG1. Demonstrate proficiency utilizing a Database Management System (DBMS) for storing, querying and modifying data.

LG2. Demonstrate proficiency in the high-level programming language Python.
LG3. Understand how computers are interconnected and managed including the associated networking technology.
LG4. Understand how information systems are designed, developed and implemented.

## Economics \& Finance

Dr. Kudret Topyan<br>Chair of the Department

The Department of Economics and Finance offers a broad choice of courses and majors in Economics, Finance, as well as a double major in Finance and Economics. The aims of the department are (1) to prepare students for careers in business, government, and not-for-profit organizations; (2) to provide an intellectual and professional basis for informed participation in contemporary society; and (3) to develop competent and well-trained students in the disciplines of Economics and Finance.

Every major in the department must consult with their academic advisors and the chair concerning the fulfillment of the requirements for the major and the electives that will be most suitable for his/her particular professional and academic development. Students planning to pursue graduate studies and quantitatively oriented jobs in economics or finance are strongly advised to pursue a minor in mathematics and/or a minor in business analytics.

## Economics

## Learning Goals for the Economics Major

1. To gain an understanding of economic issues and problems in society by studying economic principles.
2. To become familiar with the national and international financial and monetary systems and their functions.
3. To develop the analytical skills to use the theoretical and applied tools to be able to apply methods of economic analysis.

## Major

Students enrolled in the O'Malley School of Business who wish to pursue a major in Economics without a concentration must take:

ECON 301 Intermediate Price Analysis 3
ECON 302 Intermediate Macroeconomics 3
ECON 334 International Economics 3
ECON 433 Econometrics 3
Plus three approved ECON electives 9
Total Credits 21
Students enrolled in the School of Arts who wish to pursue a major in Economics without a concentration must take:

MATH 153 Finite Mathematics for Business Decisions 3
MATH 154 Calculus for Business Decisions 3
BUAN 227 Business Statistics 3
ECON 203 Microeconomics 3
or ECON 150 Roots: Economics
ECON 204 Macroeconomics ..... 3
ECON 301 Intermediate Price Analysis ..... 3
ECON 302 Intermediate Macroeconomics ..... 3
ECON 305 Money and Banking ..... 3
ECON 334 International Economics ..... 3
ECON 433 Econometrics ..... 3
Plus any three approved ECON electives ..... 9
Total Credits ..... 39The department offers three concentrations: Quantitative Economics, AppliedEconomics, and Environmental Economics. For each concentration, students are requiredto take three elective courses from the lists below.
I. Quantitative Economics
ECON 303 Mathematical Economics ..... 3
ECON 401 Advanced Microeconomics ..... 3
ECON 402 Seminar in MacroEconomics and Financial Markets ..... 3
ECON 403 Seminar in Monetary Theory and Policy ..... 3
ECON 434 Advanced Econometrics ..... 3
II. Applied Economics
ECON 432 Applied Environmental Economics ..... 3Plus two approved ECON electives.
III. Environmental Economics
ECON 332 Introduction to Environmental Economics ..... 3
ECON 412 Economic Growth and Development ..... 3
ECON 432 Applied Environmental Economics ..... 3
Or an ECON elective approved by the department to replace one of the courses ..... 3
listed above.
A minimum grade of $C$ is necessary to receive major credit.

## Internships

Students majoring in Economics are encouraged to complete a business internship. Students can complete an approved internship experience for academic credit. Free Elective credit may be used to complete ECON 375 Assimilating the Internship Experience in Economics. Interested students must consult with the Assistant Dean for Career Development for guidance on the process of securing an appropriate internship and obtaining the required faculty sponsorship. Faculty supervisors will define appropriate academic activities in parallel to work requirements in order to provide a complete internship experience. Credit-bearing internships must be approved by the Department Chair, Dean, and Assistant Dean for Career Development.

## Recommended course sequence for Economics majors:

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Credits | Spring | Credits |
| ECON $203{ }^{*}$ |  | 3 ECON $204{ }^{*}$ | 3 |
| MATH 153 or 185 |  | 3 MATH 154 or 186 | 3 |
| ENGL 110 |  | 3 ENGL 211 | 3 |
| CIS 110 |  | 3 RELS 110 | 3 |
| MGMT 201 or MKTG 201 |  | 3 MKTG 201 or MGMT 201 | 3 |
|  |  | 5 | 15 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| SOC 201 |  | 3 FIN 301 | 3 |
| BUAN 227 |  | 3 ECON 305 | 3 |
| ACCT 201* |  | 3 ACCT 202* | 3 |
| PSYC 203 |  | 3 LAW 203 | 3 |
| ENGL Elective |  | 3 PHIL 201 | 3 |
|  |  | 5 | 15 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| ECON 302 |  | 3 ECON 301 | 3 |
| ECON 433 |  | 3 ECON 334 | 3 |
| MGMT 307 |  | 3 Economics Elective | 3 |
| Liberal Arts Elective |  | 3 RELS Contemporary | 3 |
| RELS Catholic Studies |  | 3 History Elective | 3 |
|  |  | 5 | 15 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| Economics Elective |  | 3 Economics Elective | 3 |
| MGMT 406 or 430 |  | 3 MGMT 430 or 406 | 3 |
| Free Elective |  | 3 Free Elective | 3 |
| SCI Elective |  | 3 SCI Elective | 3 |
| Liberal Arts Elective |  | 3 Liberal Arts Elective | 3 |
|  |  | 5 | 15 |

Total Credits: 120

* Courses must be taken in sequence


## Minor

Students in the O'Malley School of Business who wish to minor in Economics must take:
ECON 301 Intermediate Price Analysis 3 or ECON 302 Intermediate Macroeconomics
Plus two approved ECON electives ..... 6
Total Credits ..... 9Students who are in schools other than the school of business and who wish to pursue aminor in Economics must take:
ECON 203 Microeconomics ..... 3
or ECON 150 Roots: Economics
ECON 204 Macroeconomics ..... 3
Plus three approved ECON electives ..... 9
Total Credits ..... 15

A minimum grade of $C$ is necessary to receive minor credit.

## Finance

## Learning Goals for the Finance Major

1. To gain an understanding of financial theories and their applications in financial decision-making.
2. To develop the analytical skills required to build financial models and interpret financial data, markets, and reports.
3. To acquire the ability to identify and deal with ethical issues and increase awareness of social responsibility in a financial setting.

## Major

## Requirements for a Major in Finance/CFA Track

The major in Finance is available to O'Malley School of Business students only. Students must take, in addition to the Business Core courses, FIN 308, FIN 324, FIN 416, FIN 432, FIN 436, and two Finance electives. A minimum grade of C is necessary to receive major credit.

Students should complete BUAN 227 and FIN 301 by the end of their sophomore year. Students majoring in Finance can use their free electives ( 6 credits) to fulfill the requirements for their degree. The Finance degree has been accepted into the CFA Institute University Recognition Program. This status is granted to institutions whose degree program(s) incorporate at least $70 \%$ of the CFA Program Candidate Body of Knowledge (CBOK), that provides students with a solid grounding in the CBOK and positions them well to sit for the CFA exams.
FIN 308 Investments 3

FIN $324 \quad$ Corporate Finance 3
FIN $416 \quad$ Options and Futures Markets 3
FIN $432 \quad$ Fixed Income Analysis 3
FIN 436 Multinational Finance 3
Two FIN electives $\quad 6$

Total Credits
A minimum grade of $C$ is necessary to receive major credit.
The department offers a concentration in Insurance \& Risk Management. Interested students are required to take the following two courses as their finance electives.

| FIN 370 | Insurance and Risk Management | 3 |
| :--- | :--- | :--- |
| FIN 380 | Applied Portfolio Management | 3 |

## Internships

Students majoring in Finance are encouraged to complete a business internship. Students can complete an approved internship experience for academic credit. Free Elective credit may be used to complete FIN 375 Assimilating the Internship Experience in Finance. Interested students must consult with the Assistant Dean for Career Development for guidance on the process of securing an appropriate internship and obtaining the required faculty sponsorship. Faculty supervisors will define appropriate academic activities in parallel to work requirements in order to provide a complete internship experience. Creditbearing internships must be approved by the Department Chair, Dean, and Assistant Dean for Career Development.

## Recommended course sequence for Finance majors:

## First Year

Fall Credits Spring * Credits

ECON 203*
3 ECON 2043
MATH 153 or $185^{*} 3$ MATH 154 or $186^{*} 3$
ENGL 110 3 ENGL 2113
CIS 110
MGMT 201 or MKTG 2013 MKTG 201 or MGMT 2013
15

## Second Year

Fall Credits Spring Credits
BUAN 227
3 FIN 301
ACCT 201* 3 ACCT 202* 3
SOC 201
3 PHIL 2013
PSYC 203 3 LAW 2033
ENGL Elective 3 SCI Elective 3
15

## Third Year

Fall Credits Spring Credits

FIN 308*
3 FIN $324^{*}$
ECON 305
3 FIN 416 *
HIST Elective
3 MGMT 307
RELS Catholic Studies
3 Free Elective

market valuations are examined to provide a comprehensive understanding of the relationship between the real and financial economies. The Double Major in Economics and Finance has been accepted into the CFA Institute University Recognition Program. This status is granted to institutions whose degree program(s) incorporate at least $70 \%$ of the CFA Program Candidate Body of Knowledge (CBOK), which provide students with a solid grounding in the CBOK and positions them well to sit for the CFA exams.

Required and elective courses will parallel the material necessary to prepare students for the first part of the CFA exam, which can be taken either during the senior year or after the completion of undergraduate studies. For details, please contact the chairperson.

## The double major in Finance and Economics is available to O'Malley School of Business students only. Students must take:

| FIN 308 | Investments | 3 |
| :--- | :--- | ---: |
| FIN 324 | Corporate Finance | 3 |
| FIN 416 | Options and Futures Markets | 3 |
| FIN 432 | Fixed Income Analysis | 3 |
| FIN 436 | Multinational Finance | 3 |
| Two FIN electives |  | 6 |
| ECON 301 | Intermediate Price Analysis | 3 |
| ECON 302 | Intermediate Macroeconomics | 3 |
| ECON 334 | International Economics | 3 |
| ECON 433 | Econometrics | 3 |
| Two ECON electives |  | 6 |
| Total Credits |  | 39 |

A minimum grade of $C$ is necessary to receive major credit. Students are required to complete BUAN 227 Business Statistics and FIN 301 Principles of Business Finance by the end of their sophomore year. Students double majoring in Economics \& Finance can use two free electives ( 6 credits) and three liberal arts electives ( 9 credits) to fulfill the five out of six economics major course requirements. ECON 301 Intermediate Price Analysis, ECON 302 Intermediate Macroeconomics, ECON 334 International Economics, ECON 433 Econometrics, and other economics elective courses are counted as liberal arts and free electives. Student double majoring in economics and finance need to take only one extra economics elective course during the senior year. For details, please contact the chairperson.

Recommended course sequence for the double major in Economics and Finance:
First Year

Fall
ECON 203*
MATH 153 or 185
ENGL 110
CIS 110
MGMT 201 or MKTG 201

Credits Spring

Credits

3 ECON 2043
3 MATH 154 or 186 ..... 3
3 RELS 110 ..... 3
3 ENGL 211 ..... 3
3 MKTG 201 or MGMT 201 ..... 3

| Second Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Credits | Spring | Credits |
| BUAN $227{ }^{*}$ |  | 3 FIN 301* | 3 |
| ACCT 201* |  | 3 ACCT 202* | 3 |
| SOC 201 |  | 3 ECON 305 | 3 |
| ENGL Elective |  | 3 LAW 203 | 3 |
| PSYC 203 |  | 3 PHIL 201 | 3 |
|  |  | 5 | 15 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| FIN 308* |  | 3 FIN 416* | 3 |
| FIN 436 |  | 3 FIN $324{ }^{*}$ | 3 |
| ECON 302 |  | 3 ECON 301 | 3 |
| RELS Catholic Studies |  | 3 ECON 334 | 3 |
| SCI Elective |  | 3 MGMT 307 | 3 |
|  |  | 5 | 15 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| FIN 432 |  | 3 MGMT 430 or 406 | 3 |
| ECON 433* |  | 3 RELS Global/Contemporary | 3 |
| MGMT 406 or 430 |  | 3 ECON Elective | 3 |
| FIN Elective |  | 3 FIN Elective | 3 |
| ECON Elective |  | 3 SCI Elective | 3 |
| HIST Elective |  | 3 |  |
|  |  | 8 | 15 |

Total Credits: 123
*Courses must be taken in sequence

## Global Business Studies

Dr. Grishma Shah<br>Director of the Program

The Global Business Studies program seeks to provide a global and multi-disciplinary perspective on the economic, social, cultural, ecological and technological elements (at both the micro and macro levels) of a globally integrated economy. The Global Business Studies co-major complements functional and technical business skills with a global mindset, vital to ethical, well-balanced decision making and leadership. The cornerstone of inclusive globalization is a conscious decision maker well aware of international development, economics, environmental sustainability, geo-politics, and global inequities. Students interested in pursuing a career in the international arena of business and/or inclined towards a global perspective will find the Global Business Studies co-major beneficial.

The Global Business Studies co-major option requires that students choose a primary major in a Business discipline (e.g., Marketing, Management, Finance, Economics, Computer Information Systems, Business Analytics). Global Business Studies is a second major (and not intended to be a standalone major).

Proficiency in a foreign language is strongly recommended.

## Co-Major

## Global Business Studies

Students in the O'Malley School of Business who wish to pursue a co-major in Global Business Studies must take:
MGMT 309 Management of International Business ..... 3
GLBL 414 International Field Study Seminar ..... 3(or other approved international immersion experience)
Total Credits ..... 6
One additional (3 credit) course from the following:
ECON 334 International Economics ..... 3
ECON 412 Economic Growth and Development ..... 3
FIN 436 Multinational Finance ..... 3
GLBL 470 Independent Study: International Business ..... 3
MKTG 412 International Marketing ..... 3
MGMT 300 or 400 level approved course with an international component ..... 3
Two additional ( 6 credits) interdisciplinary electives from the following:
COMM 371 Intercultural Communication ..... 3
INTL 201 Global Issues ..... 3
INTL 310 Technology and Society ..... 3
INTL 312 Ethnicity in the Modern World ..... 3
INTL 315 Special Topics: Area Studies ..... 3
POSC 205 Political Geography ..... 3
POSC 209 Comparative Politics ..... 3
POSC 223 Environmental Politics ..... 3
POSC 251 Global Issues ..... 3
POSC 254 Global Cities ..... 3
POSC 343 Government and Politics of the Middle East ..... 3
POSC 351 International Relations ..... 3
POSC 357 United States Foreign Policy ..... 3
SOC 212 Migration, Globalization, and Culture ..... 3
Total Credits for Co-Major15
Minor
Global Business Studies
Students in the O'Malley School of Business who wish to minor in Global BusinessStudies must take:
MGMT 309 Management of International Business ..... 3
GLBL 414 International Field Study Seminar ..... 3(or other approved international immersion experience)
Students must also take one of the following course elective options:
ECON 334 International Economics ..... 3
ECON 412 Economic Growth and Development ..... 3
FIN 436 Multinational Finance ..... 3
GLBL 470 Independent Study: International Business ..... 3
MGMT 309 Management of International Business ..... 3
MKTG 412 International Marketing ..... 3
MGMT 300 or 400 level approved course with an international component ..... 3
Total Credits for Minor: ..... 9
Global Business Studies Learning Goals
In addition to the business core and primary major learning goals and objectives, students who graduate with a global business co-major will:

1. Develop a global mindset, vital to ethical, inclusive, and conscious decisions making in business contexts.
2. Examine business and relevant global issues through a multi-disciplinary, multidimensional lens.
3. Engage in a minimum of one global immersion and participate in an in-depth project examining issues explored during the immersion.

# Management \& Marketing 

Dr. Yassir M. Samra<br>Chair of the Department

The Department of Management and Marketing offers a broad choice of courses and two distinct majors: Management and Marketing.

The management program examines theories and concepts of organizations, describes the skills used by managers in fulfilling their roles and functions, provides an opportunity for students to apply quantitative methods to solve management problems, and seeks to arouse interest in management as a growing field.

The major emphasis is on behavioral aspects of organizations and administrative actions in both business and nonprofit organizations. Special attention is given to the social responsibilities of the business executive and the role of the modern corporation in society. Students also learn to master the latest technologies, which allows them to graduate with a functional knowledge of the tools that will be used in their careers. Students can complete a general Management major or concentrate either in (a) Talent Management or (b) Behavior and Decision Making.

Marketing represents a key function and managerial philosophy of contemporary organizations. It is essential for the effective managing of both for profit and nonprofit organizations. Marketing involves creating products and services, communicating their value, and managing customer relationships based on a thorough understanding of customers' needs and wants. The tasks of marketing managers include determining the firm's competitive market position and strategy and formulating the optimum marketing mix: the product portfolio, communication, pricing and distribution strategies.

The Marketing program emphasizes a managerial approach and is designed to train marketing professionals who are globally-oriented business leaders. The curriculum stresses analysis, creativity, critical thinking and decision making in the marketing process.

## Management

## Major

## In addition to the business core learning goals and objectives, students who graduate with a management major will:

1. Learn the concepts, principles and application of theories within Management.
2. Develop skills in analyzing, evaluating, and applying management theories.
3. Examine the role of management in a global, diverse, and multi-cultural environment.
4. Learn the core concepts of corporate social responsibility and ethics in management.

## Requirements for a major in Management include the following:

| MGMT 309 | Management of International Business | 3 |
| :--- | :--- | :--- |
| MGMT 315 | Human Behavior in the Organization | 3 |
| MGMT 320 | Talent Management \& Acquisition | 3 |


| MGMT 314 or MGMT 450 or approved Decision Making Elective |  | 3 |
| :---: | :---: | :---: |
| 9 credits of electives from the following courses: |  | 9 |
| MGMT 305 | Managerial Planning and Decision Making |  |
| MGMT 303 | Managing Greed and Fear |  |
| MGMT 314 | Applied Management Science |  |
| MGMT 321 | Career Management |  |
| MGMT 441 | Small Business Management Seminar |  |
| MGMT 450 | Negotiation \& Conflict Mgmt |  |
| MGMT 460 | Special Topics in Management |  |
| MGMT 461 | Entrepreneurship |  |
| MGMT 462 | Managing a Diverse Workforce |  |
| MGMT 463 | Contemporary Topics \& Issues in Human Resource Management |  |
| Approved Business or MGMT Elective |  |  |
| Total Credits |  | 1 |
| A minimum grade of $C$ is necessary to receive major credit. |  |  |
| Students majoring in Management are encouraged to complete a business internship. Students can complete an approved internship experience for academic credit. Free or Business Elective credit may be used to complete MGMT 375 Assimilating the Internship Experience in Management. Interested students must consult with the Assistant Dean for Career Development for guidance on the process of securing an appropriate internship and obtaining the required faculty sponsorship. Faculty supervisors will define appropriate academic activities in parallel to the work requirement in order to provide a complete internship experience. Credit bearing internships must be approved by the Assistant Dean for Career Development, Department Chair, and Dean. |  |  |

## Concentrations in the Management Major

The department offers two concentrations within the Management Major. Students are required to declare their concentration and then fulfill the requirements as shown below. A minimum grade of $C$ is necessary to obtain Concentration credit.

1. Talent Management

- MGMT 320 Talent Management and Acquisition
- MGMT 463 Contemporary Topics and Issues in HRM OR MGMT 462 Managing a Diverse Workforce

At least one course from the following:

- MGMT 462 Managing a Diverse Workforce
- MGMT 321 Career Management
- MGMT 450 Negotiation and Conflict Management
- MGMT 463 Contemporary Topics and Issues in HRM

2. Behavior and Decision Making

- MGMT 315 Human Behavior in the Organization

At least two courses from the following:

- MGMT 305 Managerial Planning and Decision Making
- MGMT 303 Managing Fear and Greed
- MGMT 450 Negotiation and Conflict Management
- MGMT 314 Applied Management Science
- Approved MBA course in the Organizations, Markets, and Sustainability Concentration


## Recommended course sequence for Management majors:

## First Year

Fall
RELS 110 or ENGL 110
ECON 203 or ACCT 201
CIS 110 or PSYC 203
MGMT 201 or MKTG 201
Credits Spring
Credits
3 ENGL 110 or RELS 1103
3 ECON 204 or ACCT 2023
3 PSYC 203 or CIS 1103
3 MKTG 201 or MGMT 2013
3 MATH 1543
15

## Second Year

Fall Credits Spring Credits

ACCT 201 or ECON 203 3 ACCT 202 or ECON 2043
SCI Elective 3 SCI Elective 3
HIST Elective or LAW 203 3 LAW 203 or HIST Elective 3
PHIL 201 or SOC 201
3 SOC 201 or PHIL 2013
ENGL 211 or BUAN 2273 BUAN 227 or ENGL 2113
15
Third Year
Fall
Credits Spring Credits
Free Elective
3 Free Elective 3
RELS 2xx or ENGL Elective 3 ENGL Elective or RELS 2xx 3
MGMT 315 or 320
3 MGMT 320 or 3153
MGMT 307 or FIN 3013
ECON 305 or MGMT Elective 3 MGMT Elective or ECON $305 \quad 3$
Fourth Year
Fall
Business or MGMT Elective
MGMT Elective or MGMT 309
Credits Spring
Credits
3 MGMT Elective 3
3 MGMT 309 or MGMT Elective 3
MGMT 406 or 430
RELS 3xx
3 MGMT 430 or 4063
3 Liberal Arts Elective 3

Total Credits: 120

## Minor

Requirements for a minor in Management: Students who are in Schools other than Business may pursue a minor in Management. Students must obtain the permission of the School in which they are enrolled. To minor in Management a student must complete 15 credits in Management including: MGMT 201 Introduction to Management, MGMT 309 Management of International Business, MGMT 315 Human Behavior in the Organization, and 2 additional Management courses. Students in the School of Business who wish to minor in Management must take MGMT 315 Human Behavior in the Organization, MGMT 309 Management of International Business or MGMT 320 Talent Management \& Acquisition, and one management elective. A minimum grade of $C$ is necessary to obtain Minor credit.

## Requirements for the Business core

The Management program offers core courses required of all Business students. All students are required to take the following:

MGMT 201 Introduction to Management 3
MGMT 307 Operations and Quality Management 3
MGMT 406 Strategic Management 3
All students except 5 -year Accounting majors are required to take the following:
MGMT 430 Business, Government, and Society

## Marketing

## Major

## In addition to the business core learning goals and objectives, students who graduate with a marketing major will:

1. Learn the concepts, principles and application of theories within Marketing.
2. Develop skills in analyzing, evaluating, and applying marketing theories.
3. Examine the role of marketing in a global, diverse, and multi-cultural environment.
4. Learn the core skills of research and analytics in marketing.

Requirements for a major in Marketing include the following:
MKTG 303 Marketing Research 3

MKTG 307 Consumer Behavior
MKTG 403 Marketing Management 3
MKTG 412 International Marketing3
Marketing Elective ..... 3

Business Elective 6
Total Credits
A minimum grade of $C$ is necessary to receive major credit.
A working set of skills in PowerPoint, a computer-based statistics program, a computerbased marketing survey program, as well as skills in web development will be used in many of the marketing classes.

Students majoring in Marketing are encouraged to complete a business internship. Students can complete an approved internship experience for academic credit. Free or Business Elective credit may be used to complete MKTG 375 Assimilating the Internship Experience in Marketing. Interested students must consult with the Assistant Dean for Career Development for guidance on the process of securing an appropriate internship and obtaining the required faculty sponsorship. Faculty supervisors will define appropriate academic activities in parallel to the work requirement in order to provide a complete internship experience. Credit bearing internships must be approved by the Assistant Dean for Career Development, Department Chair, and Dean.

Recommended course sequence for Marketing majors:

## First Year

Fall Credits Spring Credits
ECON 203 or ACCT 201
RELS 110 or ENGL 110
PSYC 203 or CIS 110
MGMT 201 or MKTG 201
MATH 153
3 ECON 204 or ACCT 202
3 ENGL 110 or RELS 1103
3 CIS 110 or PSYC 2033
3 MKTG 201 or MGMT 2013
3 MATH 1543
15
Second Year
Fall
ACCT 201 or ECON 203
Credits Spring
Credits
3 ACCT 202 or ECON 2043
3 SCI Elective 3
ENGL 211 or BUAN 227
3 BUAN 227 or ENGL 2113
PHIL 201 or SOC 201
3 SOC 201 or PHIL 2013
LAW 203 or HIST Elective 3 HIST Elective or LAW 203 3
1515
Third Year
Fall
MGMT 307 or FIN 301
Credits Spring
Credits

ENGL Elective or RELS Catholic
Studies
MKTG 303 or 307
3 FIN 301 or MGMT 307
3 RELS Catholic Studies or ENGL 3
Elective
3 MKTG 307 or 303
ECON 305 (or MKTG Elective) 3 MKTG Elective or ECON 305
Free Elective 3 Free Elective 3
Fourth Year
Fall
MKTG 412 or 403
Business ElectiveMGMT 406 or 430RELS Global/Contemporary
Studies
Liberal Arts Elective 3
Credits Spring Credits
3 MKTG 403 or 412 ..... 3
3 Business Elective ..... 3
3 MGMT 430 or 460 ..... 3
3 Liberal Arts Elective ..... 6
15 ..... 15
Total Credits: 120

## Minor

Requirements for a minor in Marketing: Students who are in Schools other than Business may pursue a minor in Marketing. Students must obtain the permission of the School in which they are enrolled. To minor in Marketing a student must complete 15 credits in Marketing including: MKTG 201 Essentials of Marketing, MKTG 307 Consumer Behavior and 3 additional Marketing courses. Students in the School of Business who wish to minor in Marketing must take MKTG 307 Consumer Behavior and 6 approved credits in addition to the core courses required of all students. A minimum grade of $C$ is necessary to obtain Minor credit.

## Requirements for the Business core

The Marketing program offers a core course required of all Business students. All students are required to take MKTG 201 Essentials of Marketing.

## Real Estate Minor

Richard Ross
Director of the Program
New York City is the second-largest real estate investment market in the world. The Real Estate Minor is designed to introduce O'Malley School of Business students to critical skills, concepts, and applications in real estate, including acquisitions, design and planning, construction management, asset and property management, financial structuring, fundraising, and valuation. The Real Estate Minor can be taken as a complement to any major in the O'Malley School of Business and is a strong match with Finance, Accounting, Marketing, and Business Analytics.

## Real Estate Minor (for O'Malley School of Business Students)

Students in the OMSB who wish to complete the Real Estate Minor must complete three courses for a total of 9 credits:

Two Core Requirements
REAL 310 Real Estate Development 3

REAL 420 Real Estate Capstone 3
One Additional Course from the list below 3
FIN 309 Real Estate Investment
MGMT $450 \quad$ Negotiation \& Conflict Mgmt
MKTG 308 Sales Management
Total Credits
A minimum grade of $C$ is necessary to receive minor credit.

# School of Continuing \& Professional Studies-General Information 

Rosemary Osso, Assistant Dean

## Historical Note

In 1973, the College established the School of Continuing and Professional Studies (SCPS) to provide skills development courses for lifelong learners. SCPS evolved into an undergraduate degree completion program in 1997. This program offered professional students an alternate pathway to achieving their baccalaureate degree. Since then, SCPS has expanded its academic portfolio to meet the changing needs of adult learners. In 2012, SCPS launched its first-ever master's degree, the M.S. in Organizational Leadership. A year later, the School followed the M.S. with a B.S. in Organizational Leadership, featuring concentrations in general leadership studies and allied health administration. In 2015, SCPS established the organizational leadership master's online program, making the degree the College's first 100\% program online. In recent years, SCPS has dedicated itself to strengthening the College's programming for second language learners, establishing the Camino Program in 2017. This program, the first associate degree at the College, provides native Spanish-speaking students an opportunity to complete their degree while improving their English language proficiency. The SCPS Non-Credit Division started in 2018, offering various courses for K-12 learners and working adults. The purpose of the non-credit programs is to provide learners, both young and old, with the necessary skills and tools to achieve their educational goals and needs. Our accelerated, blended, cohort-based programs have made SCPS the school of choice for thousands of employees from corporations such as Consolidated Edison, UPS, the MTA, and NYPD. These professionals have turned to the School of Continuing and Professional Studies to prepare themselves for leadership positions that not only impact their current roles but the roles they may seek in the future.

## Mission Statement

The mission of the School of Continuing and Professional Studies is to prepare nontraditional students for success in diverse professional environments. SCPS is committed to creating and offering programs designed to serve the non-traditional student population with a particular focus on advancing their careers and/or fulfilling academic goals. The School of Continuing and Professional Studies is dedicated to offering programs in convenient and flexible formats.

## Admissions Requirements

Applicants for any SCPS undergraduate program are required to provide the following:

- Official High School transcript or GED report and, if applicable, college transcripts. Sealed or official electronic copies of college transcripts should be sent directly to Manhattan College.
- Current resume demonstrating at least two years of professional experience or comparable competency after completing high school.
- Two letters of recommendation. Letters should be written by individuals who can write about your personal and professional qualities, such as a supervisor, colleague, teacher, clergy, or military personnel. In both letters, your references should clearly explain their relationship to you.
- Written personal statement (minimum of 500 words) sharing your educational, professional, and personal goals and a description of how your professional and life experiences make you a good fit for this program. You should also provide examples of how your experiences outside of your education have prepared you to be a student in the Continuing and Professional Studies program.


## Transfer Credit Policy

SCPS advising will review credits obtained from the following:

- An accredited institution of higher education,
- CLEP exams, and/or
- Professional training credits accredited through NCCRS.

Your advisor will evaluate all credits from your previous academic experiences. However, only those credits applicable to your program will be transferred based on the evaluation completed by SCPS advising. The SCPS advising team receives official transcripts and assesses all credits completed. Once transfer credits have been determined and approved, the student will receive a transfer credit evaluation.

For undergraduate programs, for credits to be accepted, they must have a grade of C or better. Students may transfer up to 75 credits. Once the transfer credits are approved, the Associate Dean will confirm with the student who has requested credit assessment.

# Organizational Leadership 

Rosemary Osso, Assistant Dean

## Vision Statement

The B.S. in Organizational Leadership (BSOL) provides adult learners the opportunity to study theories and concepts related to human psychology, communication, ethics, and business management. The BSOL undergraduate degree fosters students' skills and abilities in interpersonal development and effective leadership. Students in this degree complete their coursework in a blended format that is flexible and conducive for working professionals. It is our goal to graduate students with a strong sense of self-confidence and the ability to effectively manage their careers and further their academic pursuits.

## Mission Statement

The B.S. in Organizational Leadership (BSOL) is for learners seeking to complete their undergraduate degree while attending to other full-time personal or professional activities, such as a career, military service, family care, or collegiate athletics. Students in this program study the theories and concepts critical to contemporary leaders and administrators, including psychology, professional communication, law and ethics, and workplace management.

A bachelor's degree in Organizational Leadership provides students with the skills and knowledge necessary for effective leadership in today's work environments. The purpose of this program is to graduate students with a deep understanding of contemporary approaches for leadership in various administrative and business-related settings and the confidence needed to achieve and succeed in a leadership role.

## Undergraduate Curriculum

Successful completion of this program requires that students earn a total of 120 credits. The curriculum for organizational leadership consists of a combination of general education and courses in the major. The remaining credits may be earned through transfer (including CLEP) and/or elective courses.

## Course Structure

Organizational Leadership courses are offered in an accelerated format in the evenings and weekends. Courses are completed in seven-week terms and all courses require 20 hours of coursework per week. Students may choose to from one of two different program tracks: online or blended.

For the online track, classes do not meet on campus and can be offered as either synchronous (classroom lectures and other activities are delivered in real time during pre-scheduled sessions) or asynchronous (all course activity is done online with no prescheduled sessions)

For the blended track, course activity is done asynchronously online, but there are required real-time (synchronous and classroom-based) instructional activities, such as lectures, discussions, or other face-to-face learning activities. The students enrolled in the BSOL blended track will have scheduled weekly sessions on campus and in-person.

## Advisement

Students will be assigned an academic advisor upon entry into the program. The academic advisor will meet with each assigned student three times annually: fall, spring, and summer. The advisor will assist students with their academic planning towards degree completion. SCPS academic advisors work with students to transfer up to 75 credits from institutionally accredited institutions and other designated accreditors found on the SCPS FAQ (https://inside.manhattan.edu/schools/scps/frequently-asked-questions.php) page. Depending upon the program, students may apply applicable transfer credits to elective and course requirements. Some credits from previous programs may not be applicable for transfer.

Transfer credits may be applied to the following areas:

- General Education
- Liberal Arts Electives
- Open Electives
- Major Core Courses

Students may only transfer up to 15 credits towards major core courses. Only courses with a grade of $C$ or better are eligible for transfer. The academic advisor will complete a course evaluation to determine which credits may be applicable for transfer. The academic advisor will submit a completed course evaluation to the dean for final approval of the acceptable transfer credits.

Any SCPS student who applies to another school within Manhattan College must have their previously SCPS approved transfer credits re-evaluated and subjected to the requirements of the new school.

## Program Learning Goals

## By the completion of the program, students will:

- Demonstrate appropriate competency in oral and written communication and presentation skills.
- Develop strategies to work in small and large group settings effectively.
- Conduct research, draw on and document various sources deemed appropriate for academic work, and synthesize findings in a coherent and organized manner.
- Apply theories and concepts of effective leadership.
- Evaluate the impact of multicultural, ethical, and environmental perspectives in decision-making.
- Analyze the social, legal, and economic aspects of an authentic case problem to devise appropriate strategies for problem-solving.


## Organizational Leadership Courses (B.S.)

## I. General Education (45 credits)

PSEG $110 \quad$ Foundations for Professional Writing 3

PSRL 217 Religions in the Workplace 3
PSLS 368 Leadership \& Literature 3
Humanities Elective 3
2 Religious Studies Electives 6
PSMT 221 Statistical Research Methods 3
Math Elective 3
PSEV 490 Environmental Issues 3
Science Elective 3
PSEC 231 Economics 3
PSPY 249 Industrial Psychology 3
PSLW 365 Legal Aspects \& Analysis of the Organization 3
PSEG 226 Organizational Communication 3
Social Science Elective 3
Total Credits 45
II. Liberal Arts \& Sciences Electives (15 Credits)

PSPY $280 \quad$ General Psychology (Social Science Elective) 3
PSPY 381 Applied Psychology for Managers (Social Science Elective) 3
PSPY $316 \quad$ Ten Theories of Human Nature (Social Science Elective) 3
PSEE 233 Resiliency Development in the Workplace 3
PSEE 141 The Psychology of Motivation and Leadership (Social Science 3
Electives)
PSEE $207 \quad$ Public Speaking (Social Science Elective) 3
PSEE 101 Adult Development (Social Science Elective) 3
PSEE 291 Career Development (Social Science Elecive) 3
PSSP 101 Spanish I (Humanities Elective) 3
PSRL 274 Religion \& Social Justice (Religion Elecive) 3
PSRL 379 Religion and Popular Culture (Religion Elective) 3
PSEE $360 \quad$ The History of Art (Humanities Elective) 3
PSEE $370 \quad$ The History and Culture of Modern China (Humanities 3 Elective)

PSSC $344 \quad$ Fundamentals in Human Nutrition (Science Elective) 3
PSSC 394 Everyday Biology (Science Elective) 3
PSMT 195 Modern Mathematics for the Organizational Leader

Liberal arts and sciences comprise the disciplines of the humanities, natural science, mathematics, and social science.

## III. Courses in Organizational Leadership (33 Credits)

PSLS 102 Theories and Reflection of the Adult Learner 3
PSLS 111 Organizational Change 3
PSLS 151 Conflict Management in Complex Adaptive Systems 3
PSCM 371 Visual Communications 3
PSLS 275 Teams \& Group Dynamics 3
PSCM 326 Inter-Cultural Communication 3
PSLS 287 Capstone Preparation Seminar 1
PSLS 351 Organizational Leadership 3
PSLS 375 Organizational Ethics 3
PSLS 386 Capstone Project Proposal 1
PSLS 401 Social Psychology of the Workplace 3
PSLS $450 \quad$ Strategic Planning 3
PSLS 487 Capstone Presentation 1
Total Credits 33

## IV. Open Electives (27 Credits)

Students may fulfill elective requirement by taking courses offered by the School or as transferred course credits.

Total Credits required to graduate: 120
BSOL Academic Plan at a Glance
First Year

## Credits

PSLS 1023
PSEG 110 3
PSLS 1513
PSLS 275 3
PSCM 371 3
PSEG 226 3
Second Year Credits

PSLS 287 1
PSLS 111 3
PSLS 351 3
PSLS 375 3
PSEC 231 3
PSLS 401 3
PSLW 365 ..... 319Third Year
Credits
PSLS 386 ..... 1
PSRL 217 ..... 3
PSMT 221 ..... 3
PSCM 326 ..... 3
PSPY 249 ..... 3
PSEV 490 ..... 3
PSLS 368 ..... 3
PSLS 450 ..... 3
PSLS 487 ..... 123
Total Credits: 60

## Camino Program

## Program Director

Sharon Muñoz

## Program Details

The Camino Program at Manhattan College is a two-year associate degree program in general studies designed to provide academic support and resources to native Spanishspeaking students. Students in this program reinforce their English skills while acquiring a college degree. Students benefit from tutoring, study groups, and academic counseling to help them succeed at Manhattan College.

Camino students follow a 15 -week semester. See the undergraduate calendar.
Upon successfully graduating with an associate degree, students can apply to a bachelor's degree program at Manhattan College.

## Financial Aid

Camino students receive assistance in applying for federal and state aid to study in the Camino Program. In most cases, students eligible for full aid will attend the program tuition-free.

Students not eligible for full federal and state aid may need to apply for a loan and establish a payment plan with the College to meet tuition and fee costs.

## Mission Statement

The mission of the Camino program is to provide native Spanish-speaking students with an associate degree while improving their oral and written English language proficiency. The program is committed to providing a curriculum inspired by the Lasallian core principles of quality education, social justice, leadership, and equity. The program achieves this by collaborating with diverse faculty, administrators, and staff who reflect the student body composition and are committed to justice for diverse students and communities.

## Program Goals

- Develop English language proficiency in both written and oral communication
- Gain the ability to work effectively with groups and independently
- Conduct research, drawing on and documenting a variety of academic sources and synthesize findings in a coherent and organized manner
- Evaluate the impact of multicultural, religious, and ethical perspectives in decisionmaking
- Identify and evaluate the social aspects of workplace issues and utilize problemsolving skills.


## Advisement

As part of our commitment to Camino students, everyone is assigned an advisor upon entering the program. Students are guided with resources and mentored on best practices for the first years in college. Career development, first generation, transfer process, and academic support are some of the workshops and one-on-one assistance provided.

## Credit Transfer Advisement and Evaluation

Graduates of the Camino program may apply for a bachelor's degree in over 100 majors offered at Manhattan College. Students are provided advising support in the application process for the programs they are seeking to pursue. The Camino staff helps students continue their education or pursue career endeavors and assists in the following ways:

1. Completing financial aid applications, writing transfer essays, appealing financial aid awards, and obtaining letters of recommendation.
2. Researching professional, academic, and career opportunities to support students' goals during the Camino experience.
3. Assisting students with the application process for the transition to a bachelor's degree program at Manhattan College.

The decision to accept the transfer of credits from the Camino program to other degree programs at Manhattan College is determined by the school's academic leadership. In making these decisions, the school's administration will consider the applicability of their pre-approved credits selected program of study. While all 60 Camino credits are applicable, all credits may not be compatible with the degree selected based on program requirements..

## Camino Curriculum

## Freshman <br> Fall <br> Credits

PSEG 1063
PSEG 111 3
PSEE 141 3
PSRL 217 3
PSEE 207 3

Total Credits: 15

## Freshman

## Spring

## Credits

PSMT 195 3
PSEG 226 3
PSLS 275 3
PSPY 280 3
PSLS 401 ..... 3
Total Credits: 15
Sophomore
Fall Credits
PSRL 274 ..... 3
PSRL 379 ..... 3
PSLS 375 ..... 3
PSEE 360 ..... 312
Total Credits: 12
Sophomore
Spring Credits
PSCM 326 ..... 3
PSLS 368 ..... 3
PSSC 394 ..... 3
PSEV 490 ..... 312
Total Credits: 12
General Electives ..... 6
60 total credits

## IPP (International Pathways Program)

## IPP Program Overview

The Manhattan College International Pathway Program (IPP) offers students the opportunity to take pre-selected Manhattan College credit courses. IPP students can enter the Program at two levels: IPP 005, during which students may take one three-credit course; and IPP 006, during which students may take two three-credit courses.

## Program Goals

- 
- To prepare students for success in their academic and professional careers in the U.S.
- 
- To expose students to authentic intercultural experiences.


## Mission Statement

The mission of the International Pathway Program at Manhattan College is to provide international students with cultural skills necessary to meet their academic and professional goals. To achieve this mission, the IPP collaborate with various programs across the College to offer support and services to enhance learning, provide qualified faculty and curriculum, and promote intercultural communication.

## IPP for-credit courses

IPP students can choose from the pre-selected for-credit courses indicated below*: Students can take one course in IPP 005 group and two courses in IPP 006 group.
*Credit courses are subject to availability

## Application Procedures

The IPP application process can be done online. Applicants must have high school transcripts (translated into English) and a copy of the applicant's passport in order to complete the online application.

The IPP application can be found at the following link:
https://manhattancollege.formstack.com/forms/ipp_application (https:// manhattancollege.formstack.com/forms/ipp_application/)

## Advisement

The IPP offers advising for students prior to the start of the program, during the program, and post-program. IPP administration serves as the advising office for students, and advisement includes academic and visa advisement.

## Liberal Arts - General Information

Cory Blad, Ph.D., Dean

Dianna Cruz, Assistant Dean

## Historical Note

Since its founding, Manhattan College has sought to broaden the intellectual horizons of its students while preparing them for the various professions. The School of Liberal Arts supports Manhattan College's tradition of liberal inquiry, reflection on faith in relation to reason, emphasis on ethical conduct and commitment to social justice by offering diverse foundation courses for all students, no matter their school or major. In addition, the School of Liberal Arts furthers Manhattan's emphasis on high academic standards by offering challenging majors in the humanities and social sciences and innovative interdisciplinary majors. These include courses taught by outstanding teacher-scholars committed to the advancement of knowledge in their classrooms and in their disciplines. Courses and majors emphasize the skills of analysis and criticism that are central to an understanding of the contemporary world, providing students with the informational and ethical base for that understanding and the written and oral skills necessary for its critique and communication. The faculty of Liberal Arts seeks to provide the broad, flexible, and thoughtful education essential for students to develop professionally, live successful and rewarding lives, and contribute effectively to a rapidly changing society.

## The Curriculum

The faculty of the School of Liberal Arts offers a program of education that provides students with the opportunity for a life of continuing growth and development in the twentyfirst century. The core of the program is entitled The Roots of Learning. Its development was supported by a generous grant from the National Endowment for the Humanities.

Foundation courses include composition, modern language, religious studies, science, and mathematics. Students then proceed to studies of the modern age through courses in the humanities and social sciences. The program is structured to provide a common learning experience for all students in Liberal Arts.

## The Core: The Roots of Learning

The Roots of Learning represents a commitment to an educational program that judiciously combines content and process. The program seeks to:

- Equip students with the intellectual skills essential to a productive professional life of learning and leadership
- Immerse students in the traditions of humanism, the sciences, and the social sciences
- Provide the global perspective essential to living and growing in our ever smaller, but increasingly complex, world
- Develop critical reasoning and analytical skills through an intensive study of fundamental texts


## School of Liberal Arts Core Curriculum Requirements

All first-year students in the School of Liberal Arts take one First Year Seminar in Fall and one in Spring semester. One seminar should be in the humanities and one in the social sciences. These seminars, which are designated by the number 151, are small discussion-based and writing-intensive courses that meet the School of Liberal Arts Core Curriculum Requirements.
Students in the Division of Education should review curriculum requirements on the Division of Education page.

## General Requirements

| College Writing (a first-year requirement) | 3 |
| :---: | :---: |
| Religious Studies | 9 |
| RELS 110 The Nature and Experience of Religion <br> or RELS 152 Nature \& Experience of Religion-FYS |  |
| A course in Catholic Studies |  |
| A course in Global Studies or Contemporary Issues |  |
| Modern Language (a full year requirement of the same language; placement by Modern Languages Department) | 6 |
| Mathematics (course requirement dependent upon program specifications) | 3 |
| MATH 151 Topics in Modern Mathematics |  |
| MATH 230 Elementary Statistics |  |
| Science (Select three of the following courses): | 9 |
| SCI 230 Great Ideas in Physics |  |
| SCI 231 Chemistry in the Modern World |  |
| SCI 201 Introduction Astronomy |  |
| SCI 202 Introduction Geology |  |
| SCI 203 Topics in Science I |  |
| SCI 204 Topics in Science II |  |
| SCI 221 Introduction Meteorology |  |
| BIOL 131 Principles of Biology I |  |
| Global/Non-Western |  |
| Two courses from the total required for graduation must focus on global and/or non-western topics |  |
| Computer Proficiency |  |
| Computer proficiency in the area of major concentration demonstrated by passing a test on entrance or taking a computer course |  |

Total Credits ..... 30

* Part of the science requirement may also be satisfied by a full year of chemistry, biology, or physics.


## Roots of Learning Core Requirements

| LLRN 102 or LLRN 151 | Classical Origins: West Culture Classical Origins of Western Culture-FYS | 3 |
| :---: | :---: | :---: |
| The Roots of the Social Sciences (students choose three courses from the following four disciplines): |  | 9 |
| ECON 150 | Roots: Economics |  |
| $\begin{aligned} & \text { PSYC } 150 \\ & \text { or PSYC } 153 \end{aligned}$ | Roots: Psychology <br> Roots: Psychology - FYS |  |
| POSC 150 | Roots: Government |  |
| $\begin{aligned} & \text { SOC } 150 \\ & \text { or SOC } 153 \end{aligned}$ | Roots: Sociology <br> Roots: Sociology - FYS |  |
| The Roots of the Modern Age (students take English, History, Philosophy, and either Art or Music): |  | 12 |
| $\begin{aligned} & \text { ENGL } 150 \\ & \text { or ENGL } 151 \end{aligned}$ | Roots: Literature <br> Roots: Literature-1st Year Seminar |  |
| $\begin{aligned} & \text { HIST } 150 \\ & \text { or HIST } 152 \end{aligned}$ | Roots: History <br> Roots: History - FYS |  |
| $\begin{aligned} & \text { PHIL } 150 \\ & \text { or PHIL } 152 \end{aligned}$ | Roots: Philosophy <br> Roots of Modern Age: Philosophy - FYS |  |
| ART 150 <br> or ART 151 <br> or MUSC 150 <br> or MUSC 151 | Roots: Art <br> Roots:Art -FYS <br> Roots: Music <br> Roots:Music-1st Year Seminar |  |

Total Credits 24

* Courses open only to students in the School of Liberal Arts and the School of Science.


## The Major

A major is an extensive and detailed study of a particular discipline or a coherent combination of disciplines. Each student in Liberal Arts selects a major field of study. It is chosen on the basis of the individual's interests, educational and career goals, and abilities. Double majors are possible with careful planning, but students are encouraged to take as many elective courses as possible. A maximum of six (6) credits may be shared between majors in support of respective double majors.

In Liberal Arts, the areas of specialization from which a student selects a major include the following fields:

- Art history
- Communication
- Criminology
- Economics
- English
- French
- Game Design and Production
- History
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology
- Sound Studies
- Spanish

The Division of Education in the School of Liberal Arts also offers undergraduate degrees in:

- Adolescent Education
- Childhood and Special Education (Dual Major)
- Childhood Education

Graduate programs in:

- Advanced Leadership Studies (Advanced Certificate)
- Advanced Leadership Studies, M.S. Ed.
- School Building Leadership (Advanced Certificate)
- School Building Leadership, M.S. Ed.

In addition, five interdisciplinary majors are available to students in Liberal Arts:

- Environmental Studies
- International Studies
- Labor Studies
- Peace and Justice Studies
- Urban Studies

These programs are designed to enhance a student's knowledge of a particular area of study not easily confined to a traditional academic department and to help the student develop an ability to address multiple perspectives.

Requirements for the major fields are listed under the department or program.
Students may not take more than 42 credits in their major without the permission of the Department Chair and the Dean. There is a residency requirement in the major for all transfer students: no more than 12 credits ( 9 credits in Communication) may transfer toward the major. Students are encouraged to develop a minor or a cluster.

## Minor Fields of Study

Minors may be earned in all departments and major programs offered by the School of Liberal Arts, in specific languages such as Arabic, Chinese, Italian, and Japanese, as well as specific disciplines such as Music and Theater. Interdisciplinary minors are available in areas including Catholic Studies, Critical Race \& Ethnicity Studies, Digital Arts \& Humanities, Game Design \& Production, Ethics, Film Studies, Medieval Studies, and Women and Gender Studies. Minimum grade requirements for the minor are the same as those for the major. A minor consists of 15 credits. A maximum of three (3) credits may be shared between a single major and a single minor in support of a respective major.

Students in Liberal Arts may pursue minors in other schools at Manhattan: in Computer Information Systems, Finance, General Business, Management, and Marketing in the School of Business; a general Education minor without state certification in the School of Education \& Health; or a minor in Science or in a specific Science or in Mathematics or Computer Science. Students must earn a grade of C or better in all courses taken for the minor in these schools. Students generally take no more than fifteen credits in Business or Education.

## Electives

Most programs in Liberal Arts include the opportunity for a student to select particular electives to meet individual needs. Often elective courses are selected on the basis of their relationship to the student's major field of study; they also enable students to develop a minor field of study, to structure a second major, or to explore new areas of knowledge. Electives should not be selected without serious consideration. Students are advised to consult regularly with their advisors concerning their electives.

Students generally take no more than fifteen credits in Business, Education, Science, or Engineering. Any courses taken in these programs must be approved by the appropriate chair. Students interested in exercising any of these options must consult with the Academic Advisor in the School of Liberal Arts.

Please note: Credits earned in Aerospace Studies may not be used for any degree program in Liberal Arts. Students may not take more than three credits total in health and physical education courses.

## Student Course Load

Students may not take more than eighteen credits in the Fall or the Spring semester without the written approval of the Dean of Liberal Arts. Students may not take more than three credits in the January or May intersession or the summer session without the written approval of the Dean of Liberal Arts.

## Bachelor of Science in General Studies

The curriculum for the degree program in General Studies is an alternative to the usual undergraduate curriculum. It features a modified core curriculum, a primary area of emphasis rather than a major, and two secondary concentrations (or one secondary concentration and one traditional minor). Consequently, there is less specialization, but an opportunity for broader and more structured general education. Each program provides
core requirements in English, fine arts, history, mathematics and science, philosophy, psychology, religious studies, and sociology as a foundation for self-enrichment, appreciation, and understanding. The general education core requires forty-eight credits, including nine credits in religious studies.
48 Credits (16 Classes) General Education Core
RELS 110 The Nature and Experience of Religion ..... 3
RELS 200 Level Course ..... 3
RELS 300 Level Course ..... 3
ENGL 110 First Year Composition ..... 3
or ENGL 210 Advanced First Year Composition
Choose one of the following:ENGL LiteratureMLL 300 level Course
LLRN 151 Classical Origins of Western Culture-FYS ..... 3
History Elective ..... 3
Philosophy Elective ..... 3
Art Elective (ART, MUSC, THEA) ..... 3
One course from four of the following subjects:
COMM Elective ..... 3
ECON Elective ..... 3
POSC Elective ..... 3
PSYC Elective ..... 3
SOC Elective
MATH Elective ..... 3
Additional nine credits of School of Science Classes (no more than three credits) CMPT Course MATH Course

* Distribution of six credits must be Global/Non-Western Courses ..... 6
**Distribution of 3 credits must be from Digital Arts and Humanities courses ..... 3
30 Credits (10 Classes) Primary Concentration
Primary Concentration (see Dept. of Emphasis below) ..... 24
400 level Capstone experience (research, senior/majors' seminar, internship, etc) ${ }^{1}$ ..... 3
Methods course (from options given by Chair of relevant Dept.) ..... 3
Primary Concentration Dept. of Emphasis:
(1) At least 18 credits must be in a single School of Liberal Arts dept. or interdisciplinary program, which is selected as by the student as their respective Dept. of Emphasis.
(2) At least four courses must be at 300 -level or above
(3) Faculty Advisor will come from the Dept. of Emphasis and coordinate advisingwith the SoLA Asst. Dean ${ }^{2}$
Two Secondary Concentrations (5 Classes each) ..... 30
One Secondary Concentration and a traditional Minor
Electives 12

Total Credits
No language courses at the 100-level count in the greater concentration and no more than two 200-level courses or six credits of AP may count toward the greater concentration.
Students must achieve a grade of C or better in all courses in the primary concentration.
No language courses at the 100-level count in the lesser concentration and no more than two 200-level courses or six credits of AP may count toward the secondary concentrations. Students must achieve a grade of C or better in all courses in the secondary concentrations.

No more than 18 credits in any combination may be taken in courses offered by the Schools of Business, Education, or Engineering, including courses taken in a concentration. No more than 3 credits may be taken in Physical Education and/or Health Education combined. Credits earned in Aerospace Studies do not count toward graduation in this program.

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## Academic Advising

All first- and second-year students who have not yet declared a major are advised by the Academic Advisors in the School of Liberal Arts. Division of Education students will also be assigned a faculty advisor upon enrollment in the Division. Students who have chosen their major are advised by the Chair of their department or their assigned delegate. Transfer students plan their first semester with the Academic Advisor.

## Study Abroad Opportunities

The School of Liberal Arts encourages students to broaden their educational horizons by participating in foreign study programs. In order to participate in such a program, a student must have a minimum cumulative grade point index of 2.75 . Foreign study opportunities are available in many countries.

Further information about the wide range of study abroad opportunities at the College is available through the Office of Study Abroad.

## Credit for Off-Campus Courses

Once matriculated into a degree-granting program (major) at Manhattan College (College), a student may not take off-campus courses offered by another accredited institution for transfer to the College without prior written approval from the student's academic advisor and the student's dean. A maximum of 12 credits may be taken in offcampus courses after matriculation. Each school may set limitations on what types of
courses may or may not be approved for its students that are consistent with the College's overall requirements.

Credit for courses taken at other institutions by matriculated students of Manhattan College will be recognized under the following conditions:

1. Required courses in a major or in a minor may not be taken off-campus except in extenuating circumstances and with compelling reasons, and with the approval of the chair of the major or minor program.
2. Only courses from accredited two- and four-year colleges and from accredited universities will be considered.
3. Written approval to take courses with departmental or school course numbers is obtained in advance. First, the chair of the department offering the course at Manhattan must approve the off-campus course based on the equivalency or substitutability of the course. Second, the Dean of the student's school must approve the off-campus course based on the chair's assessment and other circumstances. On-line courses are acceptable if approved. Approval to take courses without departmental or school course numbers may be approved by the dean.
4. The required form and transcript are filed with the Registrar and the required fee is paid to the Bursar.
5. The grade received at the other institution must be equivalent to or higher than the Manhattan College grade of C .
6. Grades earned at other institutions will not be transferred to the student's record at Manhattan College.
7. Study-abroad courses do not count toward the 12 -credit maximum.
8. The required nine (9) credits of Religious Studies courses - RELS 110, a 200level course in Catholic Studies, and a 300 -level course from Global Studies and Contemporary Issues - are at the core of the Lasallian heritage of the College. Generally, these courses will be taken on-campus. These courses are offered in both in-class and online formats by the College. A required RELS course may be taken off-campus if the RELS program does not offer enough openings in the course. Any exceptions will only be permitted for one of the three-credit RELS courses and as part of the overall 12 credits allowed. Any RELS course taken off-campus to meet the nine credit hour requirement will require review for equivalency or substitutability by the dean of the School of Liberal Arts before approval by the student's dean.
9. Each School may adopt additional guidelines to meet specific accreditation or curricular requirements for its programs.

This policy will come into force starting the 2017-2018 academic year for all students enrolled at that time and subsequently.

## Honor Societies and Research Opportunities

The faculty of Liberal Arts, in order to encourage and reward the development of serious scholarship among its students, have established on campus a number of national honor societies. Chief among these are Phi Beta Kappa and Sigma Xi.

Phi Beta Kappa, founded in 1776, is dedicated to the ideal of excellence in scholarship in the liberal arts and sciences and is widely regarded as a mark of the highest distinction. The Manhattan College Chapter, the Upsilon of New York, was chartered in 1971. Students elected to Phi Beta Kappa are chosen from among those students who have achieved general scholastic excellence.

Sigma Xi is a national honor society founded in 1886 that encourages original research in the pure and applied sciences. Students are elected to membership on the basis of their accomplishments in research and their enthusiasm for continued scientific investigation.

In addition, most academic departments sponsor local chapters of national honor societies in their disciplines. The faculty are dedicated to encouraging student research efforts and are pleased to have students join them in their own research. Indeed, one of the hallmarks of Manhattan College is the frequency with which students and faculty join together in research projects.

Independent study courses are available in most departments for students seeking the opportunity to do advanced-level study with a faculty member in an area not ordinarily covered by regular coursework. In addition, many departments sponsor supervised internships and field-study opportunities through the department or through the Cooperative Education Program.

Of special note are the Branigan Scholars Grants. These grants, established in 1967 through the generous contributions of Edward Vincent Branigan '40 with matching gifts from major corporations and support from the National Endowment for the Humanities, provide summer stipends for students pursuing research projects independent of their course work.

## Internships

Opportunities for off-campus work experiences that carry course credit toward graduation are available to juniors and seniors in the School of Liberal Arts through internship courses offered by departments and programs. Internship courses are numbered 375 or 475. Frequent meetings with the internship advisor and a paper are required. Internships are arranged through the Center for Career Development and must be approved in advance by their chair or advisor and by the Dean of the School of Liberal Arts.

## Graduate Awards and Fellowships

Manhattan College is among a small, select group of American Colleges sending large numbers of students on to graduate schools. To continue this tradition, the college has developed programs to assist students seeking information about graduate programs and particularly about fellowships and scholarships for graduate study. Further information is available from the Center for Graduate School and Fellowship Advisement and from the departmental chairs.

## Prelegal Advisory Committee

Students interested in entering law school should seek guidance through the Prelegal Advisory Committee. In addition to personal interviews, the Committee conducts group meetings to advise students on specialized fields of law. The Committee also makes information available on requirements for admission to law schools, the availability of
scholarships, and special opportunities in the legal profession. Further information is available from Professor Patricia Sheridan of the School of Business.

## Health Professions Advisory Committee

The Health Professions Advisory Committee is a body of faculty members from several schools who give guidance to students interested in preparing for careers in medicine, dentistry and allied fields. The Committee advises students on the selection of programs of study that will furnish them with specialized pre-professional courses in the sciences and with a broad liberal education to prepare them for effective participation in the healthcare community. Further information is available from the Office of the Chair of the Health Advisory Committee, Dr. Bruce Liby of the Physics Department.

Students seeking entry to health professions schools are encouraged to enroll in the pre-health minor. Students are not required to join the minor in order to receive an HPAC committee evaluation letter; however, participation is recommended in order to be included in the competitive cohort that applies to health professions schools each year.

## Preparation for Medicine and Dentistry

Requirements are established by the Association of American Medical Colleges, the American Dental Association, and other professional associations in the health field. The pre-professional requirements in the sciences are met within the context of a broad liberal education. Pre-professional students are expected to maintain an average of at least a B in their science courses.

The minimum required courses for admission to professional schools are:
BIOL 111 General Biology I 8
\& BIOL 112 and General Biology II
BIOL 113 General Biology I Laboratory
\& BIOL 114
and General Biology II Laboratory
CHEM 101 General Chemistry I
6
\& CHEM 102 and General Chemistry II
CHEM $319 \quad$ Organic Chemistry I 6
\& CHEM 320
CHEM 323
and Organic Chemistry II
Organic Chemistry Laboratory I
\& CHEM 324 and Organic Chemistry Laboratory II
ENGL 110 First Year Composition3

6 Credits of MATH are required.
Students should take:
MATH 155 Calculus for the Life Sciences I3

MATH 185 Calculus I 3
MATH 187 Honors Calculus I 3
MATH 230 Elementary Statistics 3
Optional 2nd MATH course
MATH 156 Calculus for the Life Sciences II 3
MATH 186 Calculus II 3
MATH 188 Honors Calculus II ..... 3
PHYS requirements:
PHYS 101 Physics I
\& PHYS 191 and Physics I Lab4PHYS 102Physics II4\& PHYS 192and Physics II Lab
OR
PHYS 107 Introduction to Physics I ..... 4\& PHYS 197 and Introduction to Physics I LabPHYS 108 Introduction to Physics II4
\& PHYS 198 and Introduction to Physics II Lab
Highly Recommended:
CHEM 433 Biochemistry I ..... 3
BIOL 319 Cellular BioChemistry/Physiology ..... 4
PSYC 150 Roots: Psychology ..... 3
or SOC 150 Roots: Sociology

Specific schools may require or recommend other courses.
At least one course each in Biochemistry, Psychology, and Sociology are highly recommended by all medical [and dental] schools.

Students seeking entry to health professions schools are encouraged to enroll in the prehealth concentration (http://catalog.manhattan.edu/undergraduate/science/prehealth/). Students are not required to join the concentration in order to receive an HPAC committee evaluation letter; however, participation is recommended in order to be included in the competitive cohort that applies to health professions schools each year.
Outline of Course Requirements Leading to a Bachelor of Arts Degree with a Major in the Humanities or the Social Sciences Excluding Psychology
First Year
Credits
LLRN 1023
Roots Humanities or Social Sciences ${ }^{1}$ ..... 9
$\mathrm{SCl}^{2}$ ..... 3
Language both semesters ${ }^{3}$ ..... 6
RELS 110 ..... 3
ENGL 110 ..... 3
$\mathrm{MATH}^{4}$ ..... 3
Second Year
Credits
Roots Humanities or Social Sciences ${ }^{1}$ ..... 9
$\mathrm{SCl}^{2}$ ..... 6
Catholic Studies ..... 3
Major and/or Elective ..... 1230
Third Year Credits
Roots Humanities or Social Sciences ${ }^{1}$ ..... 6
RELS Global Studies/Contemporary Issues ..... 3
Major and/or Elective ..... 2130
Fourth Year Credits
Major and/or Elective ..... 30

## Total Credits: 120

1
Students choose three from Roots Social Science Courses: ECON 150 Roots: Economics, POSC 150 Roots: Government, SOC 150 Roots: Sociology, PSYC 150 Roots: Psychology. Students take the following Roots Humanities courses: ENGL 150 Roots: Literature; HIST 150 Roots: History; PHIL 150 Roots: Philosophy; ART 150 Roots: Art or MUSC 150 Roots: Music.
2
The science courses SCI 201 Introduction Astronomy, SCI 202 Introduction Geology, SCI 203 Topics in Science I, SCI 204 Topics in Science II, SCI 221 Introduction Meteorology, SCI 230 Great Ideas in Physics, SCI 231 Chemistry in the Modern World and BIOL 103 Introduction to Biology. In place of the nine credit SCI requirement, students may take a full year of one of the following: PHYS 101 Physics I, PHYS 102 Physics II or PHYS 107 Introduction to Physics I, PHYS 108 Introduction to Physics II, CHEM 101 General Chemistry I, CHEM 102 General Chemistry II, BIOL 111 General Biology I, BIOL 112 General Biology II, BIOL 113 General Biology I Laboratory or BIOL 131 Principles of Biology I, BIOL 132 Principles of Biology II or BIOL 133 Principles of Biology Lab I, BIOL 134 Principles of Biology Lab II, along with one SCI course in a different science.
3
4 Placement by Modern Language Department.
4 Students generally take MATH 151 Topics in Modern Mathematics , MATH 185 Calculus I or MATH 230 Elementary Statistics.

Note: Students pursuing a B.A are required to complete at least 99 credits in the Liberal Arts and Sciences.

## Outline of Course Requirements Leading to a Bachelor of Arts Degree with a Major in Psychology

First Year

## Credits

PSYC 214
LLRN 102 ..... 3
ENGL 110 (first or second semester) ..... 3
RELS 110 ..... 3
MATH first or second semester ${ }^{4}$ ..... 3
Roots Humanities or Social Sciences first or ..... 6
second semester ${ }^{2}$
PSYC 150 ..... 3
Language both semesters ${ }^{1}$ ..... 630
Second Year Credits
PSYC 314 ..... 3
PSYC 414 ..... 3
Roots Humanities or Social Sciences ${ }^{2}$ ..... 6
PSYC Applied ..... 3
Catholic Studies ..... 3
Electives ..... 6
$\mathrm{SCl}^{3}$ ..... 630
Third Year Credits
PSYC Social/Developmental ..... 6
RELS Global Studies/Contemporary Issues ..... 3
$\mathrm{SCl}^{3}$ ..... 3
Electives ..... 15
Roots Humanities or Social Sciences ${ }^{2}$ ..... 330
Fourth Year Credits
PSYC Clinical/Cognitive/Physiological ..... 9
Electives ..... 21

## Total Credits: 120

Placement by Modern Language Department.
Students choose two from Roots Social Science courses: ECON 150 Roots:
Economics, POSC 153 Roots:Government - FYS or SOC 153 Roots: Sociology - FYS. Students take the following Humanities courses: ENGL 151 Roots: Literature-1st Year Seminar; HIST 152 Roots: History - FYS; PHIL 152 Roots of Modern Age: Philosophy FYS; ART 151 Roots:Art -FYS or MUSC 151 Roots:Music-1st Year Seminar.
The science courses are SCI 201 Introduction Astronomy, SCI 202 Introduction Geology, SCI 203 Topics in Science I, SCI 204 Topics in Science II, SCI 221 Introduction Meteorology, SCI 230 Great Ideas in Physics, SCI 231 Chemistry in the Modern World and BIOL 103 Introduction to Biology. In place of the nine credit SCI requirement, students may take one full year of the following: PHYS 101 Physics I and PHYS 102 Physics II or PHYS 107 Introduction to Physics I and PHYS 108 Introduction to Physics II, CHEM 101 General Chemistry I and CHEM 102 General Chemistry II, BIOL 111 General Biology I, BIOL 112 General Biology II, BIOL 113 General Biology I Laboratory or BIOL 131 Principles of Biology I, BIOL 132 Principles of Biology II, BIOL 133 Principles of Biology Lab I, BIOL 134 Principles of Biology Lab II, along with one SCI course in a different science.

MATH 230 Elementary Statistics is highly recommended for students pursuing a degree in Psychology.

Note: Students pursuing a B.A. are required to complete at least 99 credits in the Liberal Arts and Sciences.

## Outline of Course Requirements Leading to a Bachelor of Science Degree with a Major in Psychology

First Year

Credits
LLRN 102
Language both semesters ${ }^{1} \quad 6$
One of the following groups 8

BIOL 111
\& BIOL 113
BIOL 112
\& BIOL 114
ENGL 110 (first or second semester) 3
MATH 185 or 230 3
PSYC 150 3
PSYC 2143
Second Year Credits
One of the following groups 8
PSYC 314 3
BIOL 207 8
\& BIOL 208
RELS 110 3
PSYC 4143
CHEM 101
\& CHEM 102
PHYS 107
\& PHYS 108
Electives 3
Roots Humanities or Social Sciences ${ }^{2}$ 6

Third Year
Credits
Roots Humanities or Social Sciences ${ }^{2}$ 12
Catholic Studies 3
Electives 3
PSYC Applied/Developmental/ ..... 12
Psychological/Social30
Fourth Year Credits
Electives ..... 15
PSYC Cognitive/Clinical ..... 9
RELS Global Studies/Contemporary Issues ..... 327

Total Credits: 120
1 Placement by Modern Language Department.
2 Students choose two from Roots Social Science courses: ECON 150 Roots: Economics, POSC 150 Roots: Government, or SOC 150 Roots: Sociology. Students take the following Humanities courses: ENGL 151 Roots: Literature-1st Year Seminar; HIST 150 Roots: History; PHIL 150 Roots: Philosophy; ART 151 Roots:Art -FYS or MUSC 151 Roots:Music-1st Year Seminar.

# Art History \& Digital Media Art 

Dr. Daniel Savoy<br>Chair of the Department

The Department of Art History and Digital Media Art offers Majors and Minors in Art History and Digital Media Art.

The Major in Art History examines world art created from the pre-historic to contemporary eras within trans-cultural and trans-historical contexts. It provides students with the ability to interpret and find meaning in the visual world, while providing the critical thinking, research, and writing skills necessary to excel in careers in Art History or in related disciplines. Covering six interrelated areas of study, students develop a visual vocabulary, multiple perspectives on key monuments, an understanding of the cross-disciplinary nature of Art History, and learn to analyze visual materials, organize ideas, and write and speak persuasively about representational issues. In all of its courses, the Art History program takes full advantage of the world-renowned museums, galleries, architecture, and libraries in New York City.

The Digital Media Art Major teaches the history, theory, and practice of a variety of indemand digital art fields, including Graphic Design, Digital Photography and Video, Animation, Web and Game Design, and Immersive Media (AR/VR). Under the guidance of practicing artists and educators, and working in the department's Graphic Arts Lab, students receive industry-level training that prepares them for numerous artistic careers. This training takes place not only on campus, but also in New York City - one of the world's most vibrant centers of digital media art. With the support of dedicated faculty, students regularly secure some of the most competitive internships and jobs that NYC has to offer, gaining invaluable real-world experience at the conceptual and technological forefront of the discipline. Coupled with the larger Liberal Arts curriculum of the College, this first-hand experience prepares graduates to make culturally significant works of art that transform how we see the world.

Majors and Minors in Art History and Digital Media Art take advantage of international and NYC-based internship programs - some of which have been established specifically for students in this department. Each summer, for example, up to two Art History Majors are placed at The Peggy Guggenheim Collection in Venice, Italy, for a one month, paid internship. In addition to these opportunities, students in the department regularly intern at numerous museums, art galleries, graphic design firms, graphic art magazines, and production companies in New York City.

## Major in Art History

Majors in Art History must take a minimum of 30 credits from the following six areas:
One of the following World Arts courses: *

| ART 150 | Roots: Art |
| :---: | :--- |
| ART 151 | Roots:Art -FYS |
| ART 218 | Introduction to World Art |
| ART 402 | Special Topic: in Art (on a world art topic) |
| Two of the following Art Before 1600 courses: |  |


| ART 218 | Introduction to World Art |  |
| :---: | :---: | :---: |
| ART 260 | Monasticism and the Arts |  |
| ART 320 | Ancient Art |  |
| ART 321 | Medieval Art |  |
| ART 322 | Renaissance Art |  |
| ART 402 | Special Topic: in Art (on a pre-1600 topic) |  |
| ART 406 | Virtual Venice |  |
| Two of the following Art After 1600 courses: |  |  |
| ART 218 | Introduction to World Art |  |
| ART 323 | 19th Century Art: 1750-1890 |  |
| ART 326 | Baroque Art: From Empire to Revolution |  |
| ART 329 | History of Modern Art |  |
| ART 402 | Special Topic: in Art (on a post-1600 topic) |  |
| ART 406 | Virtual Venice |  |
| One of the following Digital Media Art courses: |  |  |
| ART 145 | Fundamentals of Art \& Design |  |
| ART 212 | Art of Digital Photography |  |
| ART 213 | Digital Drawing |  |
| ART 214 | Introduction to Graphic Design |  |

To be taken during the Junior or Senior year: ..... 3
ART 405 Senior Seminar: in Art History
Art History electives:* ..... 9
Total Credits ..... 30

* ART 218 Introduction to World Art and ART 406 Virtual Venice can only count toward one Art History Major requirement.
* Students interested in Museum Studies should take at least two of the following courses: ART 370 Current Trends, ART 402 Special Topic: in Art, on a Museum Studies Topic, ART 412 Independent Study, or ART 375 Internship.
* ART 402 Winter Intersession Study Abroad: Visualizing Venice (Venice, Italy) qualifies for one of the following: Art Before 1600, Art After 1600, or ART 212 Art of Digital Photography.
* ART 375 Internship can substitute for an upper-level course.


## Minor in Art History

Minors in Art History must take 15 credits of Art History courses as follows:
ART 150 Roots: Art ..... 3
or ART 151 Roots:Art -FYS
Electives. At least 9 credits must be at the 300 or 400 levels ..... 12
Total Credits ..... 15
*ART 375 Internship can substitute for an upper-level course.

## Major in Digital Media Art

Majors in Digital Media Art must take a minimum of 33 credits from the following three areas:

| Digital Media Art Foundations: * |  | 15 |
| :---: | :---: | :---: |
| ART 145 | Fundamentals of Art \& Design |  |
| ART 213 | Digital Drawing |  |
| Art Before 1600 |  |  |
| Art After 1600 |  |  |
| ART 409 | Senior Portfolio |  |
| Three of the following 2D Design courses: |  |  |
| ART 212 | Art of Digital Photography |  |
| ART 214 | Introduction to Graphic Design |  |
| ART 380 | Digital Video Art: Editing and Production * |  |
| COMM 305 | Digital Print Design |  |
| COMM 306 | Web Design |  |

Three of the following 3D Design courses: 9

| ART 307 | 3D Design, Modeling and Visualization |
| :--- | :--- |
| ART 309 | Animation |
| COMM 365 | Game Design \& Development |
| DASH 310 | VR: Perception \& Production |
| ENGL 335 | Victorian Media |

Total Credits

* ART 218 Introduction to World Art can count toward Art Before 1600 or Art After 1600, not both.
* ART 406 Virtual Venice can count toward Art Before 1600 or Art After 1600, not both.
* ART 402 Winter Intersession Study Abroad: Visualizing Venice (Venice, Italy) can substitute for one of the following: Art Before 1600, Art After 1600, ART 212 Art of Digital Photography, or ART 380 Digital Video Art: Editing and Production.
* ART 375 Internship can substitute for a 2D or 3D-level course when the internship focuses on a relevant subject.


## Minor in Digital Media Art

Minors in Digital Media Art must take 15 credits comprised of the following courses:

ART 212

Art of Digital Photography ..... 3

ART 213

Digital Drawing ..... 3

ART 214

Introduction to Graphic Design ..... 3
ART 380 Digital Video Art: Editing and Production ..... 3

ART 406
Virtual Venice
Total Credits

* ART 150 or ART 151 can substitute for one of the 200-level Digital Media Art courses.
* ART 375 Internship can substitute for a Digital Media Art course when the internship focuses on a relevant subject.
* ART 402 Winter Intersession Study Abroad: Visualizing Venice (Venice, Italy) can substitute for ART 406 Virtual Venice, ART 212 Art of Digital Photography, or ART 380 Digital Video Art: Editing and Production.

A minimum grade of $C$ is required for courses to satisfy all major and minor requirements. Minors must have a contract signed and approved by the Department Chair.

## Catholic Studies

Dr. Natalia Imperatori-Lee<br>Program Coordinator

The Catholic Studies minor offers students in all majors the opportunity to study in depth the many, complex aspects of this important subject: Catholic beliefs, religious practices, moral teachings; Catholicism in history and literary texts; philosophical foundations; artistic manifestations; race/class/gender factors; social justice issues; and Catholicism in everyday life. Because Catholicism is not just an institution or a set of cultural traditions, students explore the subject systematically across disciplines, including Fine Arts, Literature, History, Philosophy, and Religious Studies. In fostering a deeper understanding of faith, values, experience, and ethics with regard to the Catholic imagination, Catholic Studies resonates with the mission of Manhattan College. A minimum grade of C in all courses is required for credit toward the minor.
Note: The Department of Religious Studies also offers a concentration in Catholic Studies as an option in its major and minor.

## Minor

## Requirements for a Catholic Studies Minor

A Catholic Studies minor comprises 15 credits to be taken from the following three categories. If possible, students should take at least one course focusing on Catholicism outside of Europe and the United States:


| HIST 225 | Modern Latin America |  |
| :--- | :--- | :--- |
| HIST 305 | Early Modern Europe |  |
| ITAL 340 | Medieval and Renaissance Italian Civilization |  |
| Any 200-level | Religious Studies course |  |
| PHIL 401 | Philosophy Seminar | $\mathbf{1 5}$ |
| Total Credits |  |  |

## Communication

Dr. Arshia Anwer<br>Chair of the Department

With the opportunity to specialize in six different concentrations, the major in Communication is designed to prepare students for a career in the media industry while helping them to develop habits of ethical practices. Balancing theory and practice, coursework in Communication encourages thinking about the use of media by citizens and consumers, the impact of media on individuals and cultures, and the necessity of journalism to provide the information necessary to support a participatory democratic system of governance.

Irrespective of their concentration, graduates with a major in Communication should meet the following program learning goals:

1. Students will produce professional-level oral, written, image-based and/or virtual communication.

- Produce effective written, oral, visual, or virtual communication based on a coherent plan.
- Produce work that expresses creativity using specific media technology.
- Apply current tools and technologies appropriate for the field of communication.


## 2. Students will generate original scholarly work in communication at the undergraduate level.

- Engage with specific communication problems by designing and conducting research projects in medium of choice.
- Understand and apply qualitative, quantitative, and interpretive research methods.
- Critically evaluate their own work and that of others for accuracy, clarity, appropriate style and grammatical correctness.


## 3. Students will analyze and evaluate communication, including their own, across various media, utilizing foundational and emerging theories and methods in communication.

- Utilize and critique communication methods in professional and peer research.
- Utilize and critique communication theories in professional and peer research.
- Apply historical knowledge of the media industry to an examination of contemporary society.

4. Students will become ethical producers and consumers of media.

- Demonstrate an understanding of diversity, including gender, race, ethnicity, sexual orientation and, as appropriate, other forms, in relation to communication.
- Apply ethical principles to media through a lens of equity and social justice.
- Practice ethical standards in media creation.


## Majors

Students planning to major in the department must consult with the Chair by no later than their sophomore year. Transfer students with a background in communication must consult with the Chair and may present a portfolio of written and production-based work.

## Requirements for a Major

33 credits including COMM 101 Introduction to Communication and Media to be completed during the first year, COMM 201 Ethics in Communication \& Media to be completed by sophomore year, COMM 301 Media Theory \& Research to be completed during junior year, and COMM 409 Senior Seminar to be completed during senior year. All Communication majors must also select a concentration as their main area of study within the department as early as possible and take five required courses in that area. In addition, they must take two elective courses from any area presuming the proper prerequisites. Juniors and seniors who qualify may apply for an internship, which may serve as one of their electives.

The six areas of concentration are:

1. Advertising
2. Integrated Marketing Communications
3. Journalism
4. Media Production
5. Public Relations
6. Sports Media Production

Students must take the following in their concentration:

## Advertising

| COMM 216 | Advertising \& Society | 3 |
| :---: | :---: | :---: |
| COMM 235 | Advertising Agencies \& Storytelling | 3 |
| COMM 304 | Digital Storytelling | 3 |
| or COMM 305 | Digital Print Design |  |
| or COMM 306 | Web Design |  |
| COMM 315 | Media Planning and Buying | 3 |
| COMM 414 | Advertising Campaigns | 3 |
| Integrated Marketing Communications |  |  |
| COMM 218 | Introduction to Integrated Marketing Communications | 3 |
| COMM 235 | Advertising Agencies \& Storytelling | 3 |
| COMM 304 | Digital Storytelling | 3 |
| or COMM 305 | Digital Print Design |  |
| COMM 309 | Digital Media Writing for Marketing Communications | 3 |

## Journalism

COMM 209 Introduction to Journalism 3
COMM 213 Reporting and Newswriting3

COMM 304

Digital Storytelling ..... 3
COMM 318 Advanced Reporting/Newswriting ..... 3
COMM 335 Electronic Journalism ..... 3
Media Production
COMM 222 Introduction to Story and Post-Production ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 308 Studio Television Production ..... 3
COMM 350 Field and Post-Production ..... 3
COMM 419 Advanced TV Production ..... 3
Public Relations
COMM 217 Introduction to Public Relations ..... 3
COMM 304 Digital Storytelling ..... 3
or COMM 305 Digital Print Design
or COMM 306 Web DesignCOMM 309 Digital Media Writing for Marketing Communications3
COMM 320 Strategic Planning in Public Relations ..... 3
COMM 420 Advanced Public Relations ..... 3
Sports Media Production
COMM 225 Introduction to Sports Media ..... 3
COMM 250 Sports Media Performance ..... 3
COMM 310 Sports Media Production ..... 3
COMM 350 Field and Post-Production ..... 3
COMM 431 Advanced Sports Media Production I ..... 3
*It is recommended that students repeat COMM 431 twice for credit as COMM 432 and COMM 433

Additionally, Communication majors are required to minor or major in another discipline. The rationale behind this requirement is that work in the information industries is not only about producing content for audiences, readers, and users, but, more importantly, about the nature of that content and its purpose. Students must therefore seek to develop proficiency in a content area outside of Communication.

## Requirements for a Minor

A minor in Communication consists of 15 credits. Students must take:

| COMM 101 | Introduction to Communication and Media | 3 |
| :--- | :--- | :--- |
| COMM 110 | Public Speaking and Presentation | 3 |
| COMM 201 | Ethics in Communication \& Media | 3 |
| Electives. After completing the above three courses, minors may take any | 6 |  |
| Communication course for which they have met the prerequisite. |  |  |

Total Credits
The minor contract should be signed before registration for the second semester of the Junior year and must be approved by the Chair.

## Grade and Transfer Credit Requirements

Majors and minors must attain a minimum grade of $C$ in all Communication courses. A maximum of three courses/nine credits from a communication or related department will be accepted for transfer from another institution.

## Communication Concentrations

## Advertising

Required Courses:
COMM 216 Advertising \& Society 3
COMM 235 Advertising Agencies \& Storytelling
COMM 304 Digital Storytelling 3
or COMM 305
Digital Print Design
or COMM 306 Web Design
COMM 315 Media Planning and Buying 3
COMM 414 Advertising Campaigns 3
Recommended Electives:
COMM $110 \quad$ Public Speaking and Presentation 3
COMM 209 Introduction to Journalism 3
COMM 214 Magazine Writing 3
COMM 217 Introduction to Public Relations 3
COMM 222 Introduction to Story and Post-Production 3
COMM 225 Introduction to Sports Media 3
COMM 271 Transnational Communication \& Media 3
COMM 304 Digital Storytelling 3
COMM 305 Digital Print Design 3
COMM 306 Web Design 3
COMM 316 Scriptwriting 3
COMM 336
Sports Reporting and Writing
COMM 340 Media Criticism ..... 3
COMM 365 Game Design \& Development ..... 3
COMM 371 Intercultural Communication ..... 3
COMM 375 Internship for Juniors ..... 3
COMM 400 Political Communication ..... 3
COMM 406 Mass Communication Law ..... 3
COMM 422 Organizational Communication ..... 3
COMM 423 Programming ..... 3
COMM 461 Independent Study in Communication ..... 3
COMM 470 Special Topic ..... 3
COMM 475 Internship for Seniors ..... 3
Integrated Marketing Communications
Required Courses:
COMM 218 Introduction to Integrated Marketing Communications ..... 3
COMM 235 Advertising Agencies \& Storytelling ..... 3
COMM 304 Digital Storytelling ..... 3
or COMM 305 Digital Print Design
COMM 309 Digital Media Writing for Marketing Communications ..... 3
COMM 414 Advertising Campaigns ..... 3
or COMM 420 Advanced Public Relations
Recommended Electives:
COMM 110 Public Speaking and Presentation ..... 3
COMM 120 Forensics/Debate ..... 3
COMM 214 Magazine Writing ..... 3
COMM 222 Introduction to Story and Post-Production ..... 3
COMM 225 Introduction to Sports Media ..... 3
COMM 271 Transnational Communication \& Media ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 305 Digital Print Design ..... 3
COMM 306 Web Design ..... 3
COMM 315 Media Planning and Buying ..... 3
COMM 316 Scriptwriting ..... 3
COMM 320 Strategic Planning in Public Relations ..... 3
COMM 336 Sports Reporting and Writing ..... 3
COMM 340 Media Criticism ..... 3
COMM 365 Game Design \& Development ..... 3
COMM 371 Intercultural Communication ..... 3
COMM 375 Internship for Juniors ..... 3
COMM 400 Political Communication ..... 3
COMM 406 Mass Communication Law ..... 3
COMM 422 Organizational Communication ..... 3
COMM 461 Independent Study in Communication ..... 3
COMM 470 Special Topic ..... 3
COMM 475 Internship for Seniors ..... 3
Journalism
Required Courses:
COMM 209 Introduction to Journalism ..... 3
COMM 213 Reporting and Newswriting ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 318 Advanced Reporting/Newswriting ..... 3
COMM 335 Electronic Journalism ..... 3
Recommended Electives:
COMM 110 Public Speaking and Presentation ..... 3
COMM 214 Magazine Writing ..... 3
COMM 216 Advertising \& Society ..... 3
COMM 218 Introduction to Integrated Marketing Communications ..... 3
COMM 222 Introduction to Story and Post-Production ..... 3
COMM 225 Introduction to Sports Media ..... 3
COMM 271 Transnational Communication \& Media ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 305 Digital Print Design ..... 3
COMM 306 Web Design ..... 3
COMM 316 Scriptwriting ..... 3
COMM 336 Sports Reporting and Writing ..... 3
COMM 330 The Journalistic Tradition ..... 3
COMM 340 Media Criticism ..... 3
COMM 371 Intercultural Communication ..... 3
COMM 375 Internship for Juniors ..... 3
COMM 400 Political Communication ..... 3
COMM 406 Mass Communication Law ..... 3
COMM 461 Independent Study in Communication ..... 3
COMM 470 Special Topic ..... 3
COMM 475 Internship for Seniors ..... 3
Media Production
Required Courses:
COMM 222 Introduction to Story and Post-Production ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 308 Studio Television Production ..... 3
COMM 350 Field and Post-Production ..... 3
COMM 419 Advanced TV Production ..... 3
Recommended Electives:
COMM 110 Public Speaking and Presentation ..... 3
COMM 209 Introduction to Journalism ..... 3
COMM 216 Advertising \& Society ..... 3
COMM 217 Introduction to Public Relations ..... 3
COMM 218 Introduction to Integrated Marketing Communications ..... 3
COMM 225 Introduction to Sports Media ..... 3
COMM 271 Transnational Communication \& Media ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 306 Web Design ..... 3
COMM 316 Scriptwriting ..... 3
COMM 317 Audio Production ..... 3
COMM 335 Electronic Journalism ..... 3
COMM 336 Sports Reporting and Writing ..... 3
COMM 340 Media Criticism ..... 3
COMM 365 Game Design \& Development ..... 3
COMM 371 Intercultural Communication ..... 3
COMM 375 Internship for Juniors ..... 3
COMM 400 Political Communication ..... 3
COMM 406 Mass Communication Law ..... 3
COMM 423 Programming ..... 3
COMM 461 Independent Study in Communication ..... 3
COMM 470 Special Topic ..... 3
COMM 475 Internship for Seniors ..... 3
Public Relations
Required Courses:
COMM 217 Introduction to Public Relations ..... 3
COMM 304 Digital Storytelling ..... 3
or COMM 305 Digital Print Designor COMM 306 Web DesignCOMM 309 Digital Media Writing for Marketing Communications3
COMM 320 Strategic Planning in Public Relations ..... 3
COMM 420 Advanced Public Relations ..... 3
Recommended Electives:
COMM 110 Public Speaking and Presentation ..... 3
COMM 120 Forensics/Debate ..... 3
COMM 209 Introduction to Journalism ..... 3
COMM 216 Advertising \& Society ..... 3
COMM 222 Introduction to Story and Post-Production ..... 3
COMM 225 Introduction to Sports Media ..... 3
COMM 271 Transnational Communication \& Media ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 305 Digital Print Design ..... 3
COMM 306 Web Design ..... 3
COMM 316 Scriptwriting ..... 3
COMM 340 Media Criticism ..... 3
COMM 365 Game Design \& Development ..... 3
COMM 371 Intercultural Communication ..... 3
COMM 375 Internship for Juniors ..... 3
COMM 400 Political Communication ..... 3
COMM 406 Mass Communication Law ..... 3
COMM 422 Organizational Communication ..... 3
COMM 461 Independent Study in Communication ..... 3
COMM 470 Special Topic ..... 3
COMM 475 Internship for Seniors ..... 3
Sports Media Production
Required Courses:
COMM 225 Introduction to Sports Media ..... 3
COMM 250 Sports Media Performance ..... 3
COMM 310 Sports Media Production ..... 3
COMM 350 Field and Post-Production ..... 3
COMM 431 Advanced Sports Media Production I ..... 3
*It is recommended that students repeat this course twice for credit as COMM 432 andCOMM 433
Recommended Electives:
COMM 110 Public Speaking and Presentation ..... 3
COMM 209 Introduction to Journalism ..... 3
COMM 213 Reporting and Newswriting ..... 3
COMM 216 Advertising \& Society ..... 3
COMM 217 Introduction to Public Relations ..... 3
COMM 218 Introduction to Integrated Marketing Communications ..... 3
COMM 222 Introduction to Story and Post-Production ..... 3
COMM 271 Transnational Communication \& Media ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 306 Web Design ..... 3
COMM 308 Studio Television Production ..... 3
COMM 316 Scriptwriting ..... 3
COMM 317 Audio Production ..... 3
COMM 330 The Journalistic Tradition ..... 3
COMM 335 Electronic Journalism ..... 3
COMM 336 Sports Reporting and Writing ..... 3
COMM 338 Feature Writing ..... 3
COMM 340 Media Criticism ..... 3
COMM 365 Game Design \& Development ..... 3
COMM 371 Intercultural Communication ..... 3
COMM 375 Internship for Juniors ..... 3
COMM 406 Mass Communication Law ..... 3
COMM 423 Programming ..... 3
COMM 461 Independent Study in Communication ..... 3
COMM 470 Special Topic ..... 3
COMM 475 Internship for Seniors ..... 3

## Criminology

Dr. Roksana Badruddoja (https://manhattan.edu/campus-directory/roksana.badruddoja/)
Chair of the Department
Dr. M (https://manhattan.edu/campus-directory/roksana.badruddoja/)adeleine Novich (https://manhattan.edu/campus-directory/mnovich01/)
Director of Criminology
Criminology, as an interdisciplinary major, builds on the strengths of the social sciences and humanities, and ties together the Department's areas of interest, including qualitative and quantitative methods of research (mixed methods approaches), economics, gender, class, critical race theory, social movements, crime, terrorism, social service, anthropology, and geography. The major focuses on contemporary empirical issues like policing, mass incarceration, cybercrime, drugs, and comparative criminal justice.

The program objectives are threefold:

1. Criminal Etiology: Students in the degree program will learn criminological theoretical foundations to objectively determine root causes of criminal and socially deviant behavior in terms of extraneous factors, including behavioral, social, sociological, cultural, and economic.
2. Penology: Students will develop evidence-based, effective, and humane/socially just means for analyzing deviant behavior and understanding culturally appropriate responses to crime and criminality.
3. Sociology of Law: Students will examine how laws are made and enforced.

The program covers a range of exciting, important, and timely criminology topics that will challenge preconceptions and broaden perspectives through a wide variety of courses, including electives such as Modern American Gangs, Contemporary Policing, Criminal Justice Ethics, and Mass Incarceration and Collateral Consequences.

As a criminology major, you will:

- Analyze the U.S. class structure and how class status affects one's life
- Learn the logic and skills of social scientific research
- Gain first-hand experience collecting and analyzing data
- Survey major sociological theories, tracing contemporary approaches to classical sociologists
- Complete a capstone project based on original research

There are a vast number of career trajectories and opportunities for students graduating with degrees in criminology. The program prepares individuals aiming to pursue careers in policy evaluations, program evaluation, justice focused non-profits, law enforcement, political think-tanks, law school, and federal agencies, to name a few. Many criminology students choose to pursue graduate work, including law school.

## Criminology Major <br> Requirements for a Major in Criminology

All majors must complete the following 33 credits with a minimum grade of C for all
courses in the major:
Criminology Core ..... 15
SOC $253 \quad$ Crime Mapping (Spring) ..... 3
SOC 270 Criminology (Spring) ..... 3
SOC 294 Gender, Crime \& Justice (Fall) ..... 3
SOC 307 Research Methods (taken Fall of Junior/Senior year) ..... 3
SOC 416 Seminar in Sociology (taken Spring of Senior year) Prerequisites ..... 3 for criminology majors: SOC 270, SOC 307, and Structural Inequalities
Criminology Electives ..... 15
PSYC 257 Forensic Psychology ..... 3
SOC 273 Mass Incarceration and Collateral Consequences ..... 3
SOC 275 Issues in Contemporary Policing (Fall) ..... 3
SOC 308 Juvenile Justice ..... 3
SOC 310 Sociology of Deviance ..... 3
SOC 313 Family Law (Fall) ..... 3
SOC 317 Anthropology of Drugs ..... 3
SOC 323 Constitutional Law: Governmental Powers (Cross listed: ..... 3
POSC 323)
SOC 326 Constitutional Law: Civil Liberties (Cross listed: POSC 324) ..... 3
SOC 327 Power and Conflict ..... 3
SOC 361 Criminal Justice Administration ..... 3
SOC 362 Modern American Gangs (Spring) ..... 3
SOC 364 Law and Society (Spring) ..... 3
SOC 366 White Collar Crime ..... 3
SOC 367 Criminal Justice Ethics (Cross listed: RELS 399) ..... 3
SOC 369 Current Issues in Criminal Justice ..... 3
Structural Inequalities Distribution ..... 3
SOC 290 Codes of Gender (Fall) ..... 3
SOC 295 Capitalism (Fall) ..... 3
SOC 296 Introduction to Human Geography (Spring) ..... 3
SOC 302 Race and Resistance (Spring) ..... 3
SOC 304 Social Inequalities (Spring) ..... 3
Total Credits ..... 33

Criminology majors interested in Geographic Information System (GIS), e.g. crime mapping--create, manage, analyze, and map crime data--can choose to pair the major with either a concentration or minor in Geography and requires consultation with the
geography departmental advisor and must be approved by the Department Chair Dr. Roksana Badruddoja (https://manhattan.edu/campus-directory/roksana.badruddoja/). Criminology majors interested in concentrating in Social Services requires departmental advising and must be approved by the Department Chair Dr. Roksana Badruddoja (https://manhattan.edu/campus-directory/roksana.badruddoja/). A double major in Criminology and Sociology requires departmental advising and must be approved by the Department Chair Dr. Roksana Badruddoja (https://manhattan.edu/campus-directory/ roksana.badruddoja/).

The Department strongly recommends that all students in the criminology major complete a faculty-supervised internship for elective credit in a local social service agency: Sociology 475. Internship (3 credits). Assistance with locating a suitable placement is available with the Director of Criminology Dr. M (https://manhattan.edu/campusdirectory/roksana.badruddoja/)adeleine Novich (https://manhattan.edu/campus-directory/ mnovich01/) or at the Center for Career Development (https://inside.manhattan.edu/ student-life/career-pathways/career-development/).

## Critical Race \& Ethnicity Studies

## Program Coordinator <br> David Witzling

This interdisciplinary minor program explores processes of racial and ethnicity formation both globally and within the United States, and it encourages comparative study of such formations. It treats the experiences of people of color as central, focusing on how they have challenged their subordination. It includes the study of groups that have been defined by their proximity to "whiteness," aiming to forge solidarity on behalf of the oppressed.

The program requires a minimum of 15 credit hours, distributed as follows:
Required core course ( 3 credits):
CRES 150: Introduction to Critical Race and Ethnicity Studies
Four electives ( 3 credits each), which must include:
*at least one 300-level course in a social science department (Government, Psychology, Sociology)
*at least one 300-level course in a humanities department (English, History, Modern Languages and Literatures, Philosophy, Religious Studies, Visual and Performing Arts)

## Cultural Anthropology

The Cultural Anthropology minor is offered by the Department of Sociology. It is recommended for students who wish to supplement any major with the comparative and social scientific insights offered by Cultural Anthropology.

## Requirements for a Minor in Cultural Anthropology

Minors must take 15 credits, including the following:

| SOC 202 | Introduction to Cultural Anthropology | 3 |
| :--- | :--- | ---: |
| Four of the following courses: | 12 |  |
| SOC 204 | Urban Anthropology |  |
| SOC 217 | Visual Anthropology |  |
| SOC 317 | Anthropology of Drugs |  |
| SOC 328 | Societies and Cultures of Latin America |  |
| SOC 335 | Culture, Health, and Illness |  |
| SOC 466 | Research in Anthropology |  |

## Total Credits

15Students who wish to minor in Cultural Anthropology should see the advisor in the Department of Sociology. A minimum grade of $C$ is required for all courses in the minor.

## Digital Arts \& Humanities

Maeve Adams<br>Program Director

Digital Arts and Humanities (DAsH) is an interdisciplinary minor that brings humanistic and social scientific studies into the digital age, applying multimedia tools to our inquiries. The DAsH Minor teaches data retrieval, analysis, and visualization skills as well as digitalmedia production that bolster training in the humanities and social sciences.

Irrespective of their Major, all DAsH Minors should be aware of certain core values and competencies and be able to:

- Graduate with competency in data retrieval, analysis, and visualization;
- Produce and edit digital media products;
- Perform data mining and -management techniques through course assignments and research projects (this includes archival research, data and text mining, and metadata production);
- Demonstrate analytical and quantitative abilities through class assignments, including large-corpus analysis, internet content management and analysis, and digital analysis in a variety of programs;
- Execute data mining, management, and data analysis through hands-on experience in a number of software and web-based programs;
- Use data visualization technologies to develop new methodological and conceptual approaches;
- Critically interpret and evaluate all tools, methods, and products of DAsH study.

15 credits including DASH 200 Introduction to Digital Humanities to be completed. Of the 15 credits, 12 can be comprised of other "electives" listed below.

Students must take the following to Minor in DAsH:
Students must take four (4) additional electives to Minor in DAsH. Students must take courses in at least three departments. Overall, the student will be expected-overseen by their advisor-to maintain a balance in their studies, aiming to take two courses in the Humanities and two courses in the Social Sciences. The DASH 200 course may count towards this expectation, counting as humanities or social science course according to the discipline of the faculty member teaching the course:

| ART 212 | Art of Digital Photography | 3 |
| :--- | :--- | :--- |
| ART 213 | Digital Drawing | 3 |
| ART 214 | Introduction to Graphic Design | 3 |
| ART 380 | Digital Video Art: Editing and Production | 3 |
| COMM 101 | Introduction to Communication and Media | 3 |
| COMM 201 | Ethics in Communication \& Media | 3 |
| COMM 209 | Introduction to Journalism | 3 |
| COMM 222 | Introduction to Story and Post-Production | 3 |
| COMM 225 | Introduction to Sports Media | 3 |

COMM 271 Transnational Communication \& Media ..... 3
COMM 304 Digital Storytelling ..... 3
COMM 305 Digital Print Design ..... 3
COMM 306 Web Design ..... 3
COMM 317 Audio Production ..... 3
COMM 340 Media Criticism ..... 3
COMM 371 Intercultural Communication ..... 3
ENGL 335 Victorian Media ..... 3
HIST 304 Europe in the Middle Ages ..... 3
HIST 387 New York City and the American Urban Experience ..... 3
MUSC 390 Digital Audio Recording and Editing ..... 3
PSYC 214 Statistics and Research Methods I ..... 3
PSYC 314 Statistics and Research Methods II ..... 3
RELS 372 Religion and Science ..... 3
RELS 376 Religion and the Media ..... 3
SOC 217 Visual Anthropology ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 303 Urban Planning ..... 3
SOC 307 Research Methods ..... 3
MGMT 430 Business, Government, and Society only when taught by Dr. Edy ..... 3 Moulton-Tetlock
ECON 204 Macroeconomics ..... 3
ECON 305 Money and Banking ..... 3
ECON 332 Introduction to Environmental Economics ..... 3
ECON 334 International Economics ..... 3
ECON 403 Seminar in Monetary Theory and Policy ..... 3
ECON 412 Economic Growth and Development ..... 3
ECON 432 Applied Environmental Economics ..... 3
ART 406 Virtual Venice ..... 3
ART 307 3D Design, Modeling and Visualization ..... 3
ART 134 The Culture of Games ..... 3
ART 309 Animation ..... 3
MUSC 380 History of Sound Recording \& Audio Technology ..... 3

# Division of Education - General Information 

Cory Blad, Ph.D., Dean

## Historical Note

Teacher preparation began at Manhattan College in the late 1800's. By 1921, the College was offering programs for the preparation of Sisters and Brothers of the Christian Schools. In 1964, a Division of Teacher Preparation was established with responsibility for programs leading to teacher certification and, in 1970, was extended to a division of Education. As of 2001, the division of Education \& Health has included Undergraduate Education Programs leading to New York State teaching certification at the Childhood and Adolescent levels as well as a Dual Certification Program in Childhood/ Special Education or Adolescence/ Special Education. Downward extensions for certificates in early childhood education, and upward extensions in Middle Childhood Education are also available. In addition, the division offers a Five-Year Program in Childhood Education and Adolescence Education/Special Education leading to a B.S. in Childhood Education or Adolescence Education and an MSED in Special Education with certification in each. Graduate Programs are available in Special Education and School Building Leadership (SBL). In 2005 and again in 2010, the teacher preparation programs received accreditation from the Teacher Education Accreditation Council (TEAC) and in June 2022 received accreditation through the Association for Advancing Quality in Educator Preparation (AAQEP) for seven years.

## Objectives

In the tradition of Saint John Baptist de La Salle, the "Patron of all Teachers," the Division of Education prepares dedicated professionals for careers in teaching and leadership. A strong liberal arts and sciences education emphasizes effective communication, critical thinking, scientific literacy, and multicultural awareness. Coursework and practical experiences in Education provide those skills necessary for work in a school setting. The Division seeks to develop broadly educated teachers and leaders who possess the competencies necessary for certification in their area of study or for graduate study.

The Teacher Preparation Programs at Manhattan College simultaneously meet the requirement of the college for excellence in the Liberal Arts and Sciences, academic concentrations, and pedagogy; as well as standards established by New York State for teacher certification. The programs are designed to be consistent with the LaSallian tradition of excellence in teaching, respect for individual dignity, and commitment to social justice principles, on which the college was founded.

The Division of Education strives to meet the following goals:

1. Teacher candidates are prepared to effectively plan instruction for students in diverse, contemporary classrooms.
2. Teacher candidates are prepared to deliver effective instruction to students in diverse, contemporary classrooms.
3. Teacher candidates are prepared to effectively assess student learning in diverse, contemporary classrooms.
4. Teacher candidates engage in active field and clinical experiences that prepare them to plan, teach, and assess student learning in diverse, contemporary classrooms.
5. Teacher candidates demonstrate the necessary professional dispositions required to effectively plan, teach, and assess student learning in diverse, contemporary classrooms.
6. The Division of Education supports the induction of teacher candidates into the teaching profession.

The goal of the Education Faculty is the preparation of professional educators who are reflective, scholarly, and committed to the education of all learners. Students examine the theoretical foundations of learning and teaching in relation to psychological, philosophical, historical, and sociological issues. This theoretical foundation is applied to the practice of teaching and learning as students engage in field-based experiences in the context of a diverse, contemporary educational environment. The total Manhattan College experience is designed to prepare graduates who are self-directed learners, effective teachers, informed professionals, and caring human beings committed to the education of all learners.

## Curricula

A strong core of liberal arts and science courses is central to all programs in Education. Each Teacher Preparation Program has three components: the core requirements in the liberal arts and sciences; an academic concentration and the professional education component of the program. All students in Education complete a culminating experience of student teaching in which they are expected to display the ability to apply knowledge gained through previous coursework and field experiences. The curricula of the Childhood Education, Adolescent, and Dual-Childhood/Adolescence Special Education Programs are designed for undergraduate students who are pursuing their degrees full-time.

## Advising

Students in Childhood Education, Adolescence Education, and Dual-Childhood or Adolescence Education/Special Education Programs have two assigned advisors: an education faculty advisor and an advisor in the content specialization or concentration area (i.e., English, Math). Each student has a Degree Works profile that includes courses required for graduation based on his/her education program and content specialization. Their Degree Works is broken down into their core requirements, education requirements and content specialization requirements.

Students are required to meet with their faculty advisor to discuss individual academic and professional progress, and course scheduling each semester. Once students have met with and received the signature of their Faculty Advisor they must then submit their schedule to the Office Manager/Certification Officer for review.

While department faculty provide advisement, the student is ultimately responsible for academic and professional decisions. Please note that it is very important for the student to take the recommended number of credits each semester in order to avoid an overcharge at a later time. If a student is struggling in a course, it is highly recommended that
the student meet with the course instructor and also his/her advisor for support, and to avoid having to withdraw from the course.
1.The Educational Faculty Advisor provides guidance through the program and consultation related to professional issues. This may include selecting an academic concentration, identifying appropriate electives or discussing graduate school or employment options. The education advisor is the sole faculty advisor for students who choose a General Studies content specialization.
2. The Content Specialization Faculty Advisor provides guidance to assure that the student takes the required courses in their content specialization area and offers assistance in selecting the most appropriate electives. Some Content Specialization advisers also sign the course registration along with the academic advisor for the Division of Education.

## Criteria for Formal Admission into Teacher Education Program

1. Successfully complete English 110 with a grade of C+ or higher;
2. Successfully complete core Math requirements with grades of "C" or higher;
3. Complete two required Education courses from the following list with grades of C or higher for the two courses (Educ 201, Educ 202, Educ 206, Educ 301 or Educ 318); 4. Have an overall Grade Point Average of 2.75 and a minimum average of 2.5 or higher in the academic concentration(s);
4. Successfully complete Kinesiology 110 with a grade of $C$ or higher.

Applicant's disposition assessments will be reviewed, as will faculty comments on Jasper Connect and in the applicant's program folder. In addition, 6.Undergraduate Education faculty will be invited to comment on each applicant's professional dispositions as part of their application.

## Students applying for formal admission into teacher education can receive one of three responses

1. Unconditional admittance into the Program. The student who successfully meets all criteria, is formally admitted into the Program, and may proceed with the program of studies.
2. Conditional admittance into the Program. The student who has met most criteria will be eligible for unconditional admittance by the end of the following semester and may continue and enroll in education courses for that semester. At the end of the conditional semester the student automatically advances to unconditional admittance if all criteria are met. If the conditions are not met, the student will not be allowed to take additional upper division education courses until unconditional status is achieved. The student must reapply if unconditional status is not met by the end of the conditional semester.
3. Denied admittance into the Program. If a student has a number of deficiencies that will take longer than one semester to correct, the application will be denied. The student will not be allowed to continue with education classes until conditional admittance is achieved. When conditional admittance status is achieved the student must meet the criteria listed under conditional admittance. The student in this category must reapply for admission to teacher education when the criteria are met and documented.

Note: Students who do not achieve unconditional or conditional admittance into the Education Program by the end of the second year may take longer than four years to complete the program. The above criteria are designed for students who indicate their intent to pursue Education when they enter Manhattan College as first-year students and follow the prescribed program. Internal and external transfer students will be evaluated on an individual basis for entrance into the program and must meet all criteria.

## Requirements for student teaching

To register for student teaching, a student must meet the following requirements:

1. Enrollment in the Program;
2. Cumulative GPA of 2.75 or higher is required;
3. A GPA of 2.75 or higher is also required in Education courses and 2.5 for academic concentration(s) coursework;
4. Senior status required at the time of the student teaching;
5. Recommendation of the Chair of the Division or Program Director.
6. Applicant's disposition assessments will be reviewed, as will faculty comments on Jasper Connect and in the applicant's program folder. In addition, Undergraduate Education faculty will be invited to comment on each applicant's professional dispositions as part of their application;
7. The student teaching applicant may not have more than two academic concentration courses and one pedagogical concentration course to complete after student teaching.

Note. Required exams for New York State teacher certification are: Educating All Students Test and the Content Specialty Test in each area of certification. Students also pursuing certification in Students with Disabilities must take a second Content Specialty Test in special education. Students who desire to teach in other states should check with the State Education Department of the specific state in which they want to teach and register for the appropriate State-mandated tests.

Students already graduated from the School may not register for undergraduate student teaching.

## Teacher Certification

The Division of Education has been approved by the New York State Education Department to offer approved programs leading to the initial certificate. Certification can be achieved in the following fields:

Childhood Education, (grades 1-6)
Extension for Early Childhood Education (birth - grade 2)
Childhood Education and Students with Disabilities (grades 1-6)
Adolescence Education, (grades 7-12)
Extension for Middle Childhood (grades 5-9 for Adolescence Education majors; Grades 7-9 for Childhood Education majors)

Adolescence Education and Students with Disabilities (grades 7-12)

The initial certificate is valid for five years, beginning the first year the individual is employed as a teacher. In order for a student to be recommended by the Dean for initial certification, the following requirements must be met:

1. Completion of all course work ("the approved program") with a cumulative index of 2.75 or higher;
2. A passing grade in all courses;
3. A grade of "C" or higher in all Education and concentration course work; Please note that the cumulative and Education grades GPAs must be at least 2.75;
4. Completion of the New York State Education Department approved program of teacher preparation in the certification area;
5. Successful completion of appropriate New York State Teacher Certification Examinations: EAS and CST (s)
6. Completion of the online application for certification and payment of required fees;
7. Recommendation of the Dean of SOLA, the state certifying officer; and
8. Payment of all outstanding fees owed to the college.

Note: Candidates for NYS certification are responsible for knowing and meeting NYS requirements related to the specific certification they seek. Any changes in NYS requirements take precedence over those in this catalog.

## Transfer Students

Students in good academic standing (minimum GPA of 2.75) and possessing a desire for teaching will be accepted for transfer into the Division Education from any program in the College after their first semester of study. Only those courses in which the student has received a " $C$ " or higher are transferable.

Transfer students from other accredited colleges who meet the requirements for admission at Manhattan College will be considered for transfer to the Division of Education. Courses comparable to those required in the Division of Education and in which the student achieved a minimum grade of "C" are transferable.

## Education Minor (does not lead to teacher certification)

| EDUC 201 | Principles and Practices of Education | 3 |
| :--- | :--- | ---: |
| EDUC 202 | Psychology of Adolescent Education <br> or EDUC 303 | Psychology of Childhood Education |
| EDUC 301 | Nature and Needs of Students with Disabilities <br> EDUC 406 | Social Relations in the Classroom Social Relations in the <br> Classroom |


| Total Credits | 15 |
| :--- | :--- |

## Enrichment

Students are encouraged to participate in co-curricular activities that enrich their program of study. Co-curricular activities may increase cultural awareness, knowledge in subject
content, and skills in communication. Campus activities of a religious, cultural, and academic nature offer opportunities for self-expression such as forums, dramatics, public speaking and publications.

## Honors

Students who maintain a 3.5 or higher index may, after their first semester, be invited to participate in the Honors Program of the Schools of Liberal Arts. This program offers additional cultural and intellectual experiences to those students demonstrating academic excellence.

In addition to the scholastic honors offered by the College, students in Education are eligible for membership in national honor societies. Students pursuing teacher education are eligible after sophomore year for selection into the Mu Sigma Chapter of Kappa Delta Pi if they meet the criteria established by the society.

## Job Opportunities for Teacher Education Graduates

According to the National Center for Education Statistics' Predicting the Need for Newly Hired Teachers in the U.S., there is a need for more teachers. The U.S. Department of Education also reports teacher shortages throughout the country.

## Study Abroad

Students interested in studying abroad should discuss their interest with their faculty advisor by the second semester of freshman year. Students may opt to study abroad for either a full semester or on one of the College's short-term programs during the winter intersession or summer break. If planning to go abroad for a full semester, it is best to plan the semester of study abroad for the second semester of sophomore year or the first semester of junior year. Further information about study abroad opportunities is available through the Study Abroad Office.

## Programs of Study for Childhood, Adolescent, and Dual Childhood/ Special Education

The first year of the program emphasizes courses in the liberal arts and sciences. The remaining three years of each program are arranged by developmental level (childhood or adolescence) according to the subject area the student is preparing to teach. If the student follows his/her prescribed program plan, requirements for graduation and initial teacher certification can be achieved in four years.

## Adolescence Ed Grades 7-12

Chair of the Division
Students successfully completing all requirements, including their course requirements, clinical requirements, New York State Teacher Exams, and the Child Abuse and Neglect Reporting Workshop, the SAVE Workshop, and the DASA workshop, will be recommended for New York State initial certification.

## Adolescence Education (Grades 7-12)

All future Adolescence Education teachers are required to successfully complete a concentration of at least 30 credits in one of the following areas: English, modern foreign language (Spanish or French), social studies, mathematics, biology, chemistry or physics.

## Teacher of English (Grades 7-12)

First Year
Fall Credits Spring Credits
EDUC 201
KIN 110
English Lit. Elective
Language 1
3 EDUC 202 3
3 SCI Elective 3
3 Language 2
3 MATH 151 or 2303
RELS 110
3 ENGL 110 3
15
Second Year
Fall Credits Spring Credits

EDUC 206
3 EDUC 301
ENGL 306
3 EDUC 360
RELS 200-Level Course
3 EDUC 3113
ENGL Concentration Electives 1
6 ENGL Concentration Electives $3 \quad 6$
\& 2 \& 4
15

## Third Year

Fall
Credits Spring
Credits

EDUC 376
3 EDUC 403
SPCH 204
3 EDUC $408 \quad 3$
SCI Elective
3 PHIL Elective 3
ENGL Concentration Electives 5
6 ENGL Concentration Electives 7
\& 6 \& 8
15

## Fourth Year

Fall
Credits
Spring
Credits
ENGL 395
3 EDUC 453

| Fine Arts Elective | 3 EDUC 454 |
| :--- | :--- |
| ENGL Concentration Elective 9 | 3 KIN 209 |
| RELS 300-Level Course | 3 Social Science (ECON/POS |
|  | PSYC**/SOC) |
| Elective | ENGL Concentration Electiv |
|  | EDUC 406 |
| Total Credits: $\mathbf{1 2 1}$ |  |
| * Not PSYC 345 or 346 |  |
| Show evidence of passing New York State exams (to be |  |
| determined). |  |
| Dual-Teacher of English and Students with |  |
| Disabilities (Grades 7-12) |  |

Please note that this major includes a one credit overcharge, but graduates are eligible for an additional NYS certification.

First Year
Fall Credits Spring Credits
EDUC 201
3 EDUC 2023

KIN 110 3 Language 2 3
Language 1
English Lit. Elective
3 MATH 151 or 2303
RELS 110
3 SCI Elective 3
3 ENGL 1103
15
Second Year
Fall Credits Spring Credits
EDUC 206
3 EDUC 301
ENGL 306
3 EDUC 360 3

RELS 200-Level Course
3 EDUC 3113
ENGL Concentration Electives 1
6 ENGL Concentration Electives $3 \quad 6$
\& 2 \& 4
Philosophy Elective 3

Third Year
Fall
Credits Spring
Credits

EDUC 376
3 EDUC 403 3
SPCH 204
3 EDUC 408
SCI Elective
3 EDUC 404

| ENGL Concentration Electives 5 | 6 ENGL Concentration Electives 7 | 6 |
| :--- | :---: | ---: |
| $\& 6$ | \& 8 |  |
|  | $\mathbf{1 5}$ | $\mathbf{1 5}$ |
| Fourth Year | Credits | Spring |
| Fall | 3 EDUC 453 or 455 |  |
| ENGL 395 | 3 EDUC 454 or 456 | 3 |
| Fine Arts Elective | 3 KIN 209 | 3 |
| ENGL Concentration Elective 9 | 3 Social Science (ECON/POSC/ | 3 |
| RELS 300-Level Course | PSYS**/SOC) | 3 |
|  | 3 ENGL Concentration Elective 10 | 3 |
| EDUC 358 | EDUC 406 | 3 |
|  | $\mathbf{1 5}$ | 3 |
|  |  | $\mathbf{1 6}$ |

## Total Credits: 124

* Not PSYC 345 or 346

Show evidence of passing New York State exams (to be determined).

## English Concentration Electives:

Three courses (9 credits) at the 300- or 400-level from "Literary History and National Traditions," one from each of the three literary periods listed.

One course from three of the remaining four categories ( 9 credits): "Theory, Media, and Praxis"; "Writing"; "Genre and Author Studies"; and "Global and Cultural Perspectives"

ENGL 395: Senior Seminar (3 credits): NOT required for Childhood Education concentrators; required for adolescent ED concentrators.

2 additional 300- or 400-level courses (6 credits), including one labeled "Sophomore/ Junior research seminar."

Total: 30 credits
Additional details about elective options for Education majors will be found in the English section of this catalog.

## Teacher of Spanish and Latin American Studies (Grades 7-12)

First Year
Fall
EDUC 201
KIN 110
RELS 110
Credits Spring Credits3 EDUC 2023
3 ENGL 110 ..... 3
3 MATH 151 or 230 ..... 3

| Two Spanish courses <br> recommended by Spanish <br> advisor* $^{*}$ | 6 Two Spanish courses <br> recommended by Spanish <br> advisor** | 6 |
| :--- | :--- | :--- |

15
15
Second Year

| Fall | CreditsSpring <br> EDUC 206 | Credits |
| :--- | :---: | :---: |

SCI Elective
3 SPAN 3403
SPCH 204
3 Second Language 3
SPAN 307
3 EDUC 3603
2nd Language 3 RELS 200-Level Course 3
$15 \quad 15$
Third Year
Fall Credits Spring Credits
EDUC 379 3 EDUC 403 3
EDUC $311 \quad 3$ Second Language 3
SPAN 317 3 Spanish 300-level elective 3
SPAN $341 \quad 3$ SPAN 400-level Elective 3
2nd Language 3 EDUC 408 3
15 15
Fourth Year
Fall
Credits Spring
Credits
SPAN 400-level Elective
3 EDUC 453
Fine Arts Elective 3 EDUC 454 3
SCI Elective
3 EDUC 4063
ENGL Literature Elective
3 KIN 209
PHIL Elective
3 Social Science (ECON/POSC/ 3 PSYC***/SOC) RELS 300-Level Course 3

## Total Credits: 121

* SPAN 201 or SPAN 203 or SPAN 221 SPAN 222 or SPAN 223 or SPAN 300-level
** SPAN 202 OR SPAN 204 OR SPAN 222 or SPAN 223 or SPAN 300-level
***Not PSYC 345 or 346


## Dual Teacher of Spanish and Latin American Studies and Students with Disabilities (Grades 7-12)

Please note that this major includes a two credit overcharge, but graduates are eligible for an additional NYS certification.

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Credits | Spring | Credits |
| EDUC 201 |  | 3 EDUC 202 | 3 |
| KIN 110 |  | 3 ENGL 110 | 3 |
| RELS 110 |  | 3 MATH 151 or 230 | 3 |
| Two Spanish courses recommended by Spanish advisor* |  | 6 Two Spanish courses recommended by Spanish advisor** | 6 |
|  |  | 5 | 15 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| EDUC 206 |  | 3 EDUC 301 | 3 |
| SCI Elective |  | 3 SPAN 340 | 3 |
| SPCH 204 |  | 3 Second Language | 3 |
| SPAN 307 |  | 3 EDUC 360 | 3 |
| 2nd Language |  | 3 RELS 200-Level Course | 3 |
|  |  | 5 | 15 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| EDUC 379 |  | 3 EDUC 403 | 3 |
| EDUC 311 |  | 3 Second Language | 3 |
| SPAN 317 |  | 3 Spanish 300-level elective | 3 |
| SPAN 341 |  | 3 SPAN 400-level Elective | 3 |
| 2nd Language |  | 3 EDUC 408 | 3 |
| EDUC 358 |  | 3 EDUC 404 | 3 |
|  |  | 8 | 18 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| SPAN 400-level Elective |  | 3 EDUC 453 or 455 | 3 |
| Fine Arts Elective |  | 3 EDUC 454 or 456 | 3 |
| SCI Elective |  | 3 EDUC 406 | 3 |
| ENGL Literature Elective |  | 3 KIN 209 | 1 |
| PHIL Elective |  | 3 Social Science (ECON/POSC/ PSYC***/SOC) | 3 |
|  |  | RELS 300-Level Course | 3 |

## Total Credits: 127

*SPAN 201 or SPAN 203 or SPAN 221 SPAN 222 or SPAN 223 or SPAN 300-level
** SPAN 202 OR SPAN 204 OR SPAN 222 or SPAN 223 or SPAN 300-level
***Not PSYC 345 or 346

## Teacher of French and Francophone Studies (Grades 7-12)

First Year
Fall
EDUC 201
Credits Spring
Credits

KIN 110
RELS 110
FREN 201
3 EDUC 202
3 ENGL 1103
3 FREN 2033
3 FREN 2043
3 MATH 151 or 2303
15
Second Year
Fall
Credits Spring
Credits
EDUC 206
3 EDUC 3013

FREN 340
3 FREN 350
SCI Elective
3 EDUC 3603
SPCH $204 \quad 3$ 2nd Language 3

2nd Language
3 RELS 200-Level Course
1515

Third Year
Fall
Credits Spring
Credits
FREN 307
3 EDUC 403
3
2nd Language 3 2nd Language 3
EDUC 379 3 PHIL Elective 3
EDUC 3113 3EDUC 408
FREN 300-400-Level Elective
3 FREN 300-400-Level Elective 3
15
15
Fourth Year
Fall
Credits Spring
Credits
SCI Elective
Fine Arts Elective
RELS 300-Level Course
3 EDUC 453
3 EDUC 454 3
3 EDUC 4063
ENGL Literature Elective
FREN 300-400-Level Elective
3 KIN 2091

3 Social Science (ECON/POSC/ 3
PSYC**/SOC)
Elective

Total Credits: 121

## Dual Teacher of French and Francophone Studies and Students with Disabilities (Grades 7-12)

Please note that this major includes a one credit overcharge, but graduates are eligible for an additional NYS certification.

First Year
Fall Credits Spring Credits
EDUC 201
KIN 110
RELS 110
FREN 201
FREN 202
3 EDUC 202
3
3 ENGL 1103
3 FREN 2033
3 FREN 2043
3 MATH 151 or 2303
15
Second Year
Fall Credits Spring Credits
EDUC 206 3 EDUC 3013
FREN 340 3 FREN 3503
SCI Elective 3 2nd Language 3
SPCH 2043 3EDUC 3603
2nd Language 3 RELS 200-Level Course 3
Third Year
Fall Credits Spring Credits
FREN 307
3 EDUC 403 3
2nd Language 3 2nd Language 3
EDUC 379 3 EDUC 404
FREN 300-400-Level Elective 3 EDUC 3113
PHIL Elective 3 FREN 300-400-Level Elective 3
EDUC 3583
$18 \longrightarrow 15$
Fourth Year
Fall Credits Spring Credits
SCI Elective
ENGL Literature Elective
Fine Arts Elective
RELS 300-Level Course
FREN 300-400-Level Elective

3 EDUC 453 or 4553
3 EDUC 454 or 4563
3 EDUC 4063
3 KIN 2091
3 Social Science (ECON/POSC/ 3 PSYC**/SOC)

EDUC 408

## Total Credits: 124

NOTE: *If student places above the 200 level, two additional electives will be selected in consultation with language advisor.
**Not PSYC 345 or 346
Show evidence of passing New York State exams (to be determined).

## Teacher of Social Studies (Grades 7-12)

## First Year

Fall Credits Spring Credits
EDUC 201
KIN 110
RELS 110
HIST 206
3 EDUC 2023

3 Language 23
3 MATH 151 or 2303
3 HIST 2073
Language 1
3 ENGL 110 3
15
Second Year
Fall
EDUC 206
Credits Spring
Credits
3 EDUC 301
3
HIST 300
3 EDUC 360
HIST 217
3 HIST 218
RELS 200-Level Course
3 ECON 2033
SOC 201 3 EDUC 311 ..... 3
15 ..... 15
Third Year

| Fall | CreditsSpring <br> EDUC 377$\quad 3$ SPCH 204 | Credits |
| :--- | ---: | ---: |
| 3 |  |  |

EDUC 408 3 EDUC 403

HIST Elective
3 HIST Elective (World) 3
HIST Elective (World) 3 SCI Elective 3
SCI Elective 3 ECON 204 ${ }^{\text {Or POSC } 205 \text { or POSC } 251} 3$
15
Fourth Year
Fall
Credits Spring
Credits
EDUC 453
3 EDUC 406
EDUC 454
3 HIST 490
POSC 203
3 Fine Arts Elective
Social Science (ECON/POSC/ 3 PHIL Elective 3 PSYC**/SOC)
RELS 300-Level Course 3

## Total Credits: 121

* Available History electives include: HIST 225, HIST 240, HIST 242, HIST 306, HIST 312, HIST 313, HIST 314, HIST 318, HIST 328, HIST
$\dagger$ It is recommended that student teaching be taken during Fall semester due to the scheduling of HIST 490 (http://catalog.manhattan.edu/undergraduate/education/) Senior Seminar in the Spring.
**Not PSYC 345 or 346
Show evidence of passing New York State exams (to be determined).


## Dual-Teacher of Social Studies and Students with Disabilities (Grades 7-12)

Please note that this major includes a two credit overcharge, but graduates are eligible for an additional NYS certification.

## First Year

Fall
EDUC 201
Credits Spring
Credits
3 EDUC 202 3
KIN 110
3 Language 23

RELS 110
Language 1
3 MATH 151 or 230
3 HIST 2073

HIST 206
3 ENGL 110 ..... 3

15

## Second Year

Fall
EDUC 206
Credits Spring
Credits
3 EDUC 3013
HIST 300
3 EDUC 3603
HIST 217
3 HIST 218 3
RELS 200-Level Course 3 EDUC 3113
SOC $201 \quad 3$ ECON $203 \quad 3$
15
Third Year
Fall Credits Spring Credits
EDUC 377
3 SPCH 204
EDUC 408
3 EDUC 4033
HIST Elective

3 EDUC 4043 HIST Elective (World)3

| EDUC 358 |  | 3 ECON $204{ }^{\text {Or POSC } 251}$ or POSC 205 | 3 |
| :---: | :---: | :---: | :---: |
| SCI Elective |  | 3 |  |
|  |  | 18 | 15 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| EDUC 453 or 455 |  | 3 EDUC 406 | 3 |
| EDUC 454 or 456 |  | 3 HIST 490 | 3 |
| POSC 203 |  | 3 Fine Arts Elective | 3 |
| KIN 209 |  | 1 ENGL Literature Elective | 3 |
| Social Science (ECON/POSC/ PSYC**/SOC) |  | 3 PHIL Elective | 3 |
| RELS 300-Level Course |  | 3 SCI Elective | 3 |
|  |  | 16 | 18 |
| Total Credits: 127 |  |  |  |
| Teacher of Mathematics (Grades 7-12) |  |  |  |
| First Year |  |  |  |
| Fall | Credits | Spring | Credits |
| EDUC 201 |  | 3 EDUC 202 | 3 |
| KIN 110 |  | 3 ENGL 110 | 3 |
| CMPT 101 |  | 3 Language 2 | 3 |
| MATH 185 |  | 3 MATH 158 | 3 |
| Language 1 |  | 3 MATH 186 | 3 |
|  |  | 15 | 15 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| EDUC 206 |  | 3 EDUC 360 | 3 |
| RELS 110 |  | 3 MATH 328 or 361 | 3 |
| MATH 285 |  | 3 MATH 372 | 3 |
| MATH 243 |  | 3 EDUC 311 | 3 |
| EDUC 301 |  | 3 Social Science (ECON/POSC/ PSYC**/SOC) | 3 |
|  |  | 15 | 15 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| EDUC 378 |  | 3 EDUC 403 | 3 |
| MATH 377 |  | 3 MATH 387 | 3 |
| EDUC 408 |  | 3 RELS 200-Level Course | 3 |
| SPCH 204 |  | 3 MATH 361 or 328 | 3 |
| MATH 331 |  | 3 SCI Elective | 3 |
|  |  | 15 | 15 |


| Fourth Year |  |  |
| :--- | :--- | ---: |
| Fall | Credits $\quad$ Spring | Credits |
| EDUC 453 | 3 EDUC 406 | 3 |
| EDUC 454 | 3 ENGL Literature Elective | 3 |
| KIN 209 | 1 MATH 489 | 3 |
| PHIL Elective | 3 MATH 336 | 3 |
| RELS 300-Level Course | 3 Fine Arts Elective | 3 |
| SCI Elective | 3 |  |
|  | $\mathbf{1 6}$ | $\mathbf{1 5}$ |

Total Credits: 121

* MATH 243 Foundations for Higher Mathematics

Student may complete CMPT Sci. minor by taking CMPT 101 (http:// catalog.manhattan.edu/undergraduate/education/) Computer Science I, CMPT 102 (http:// catalog.manhattan.edu/undergraduate/education/) Computer Science II and 3 additional approved courses. All CMPT electives must be approved by mathematics advisor or chair.
**Not PSYC 345 or 346
Show evidence of passing New York State exams (to be determined).

## Dual-Teacher of Mathematics and Students with Disabilities (Grades 7-12)

Please note that this major includes a two credit overcharge, but graduates are eligible for an additional NYS certification.

## First Year

Fall Credits Spring Credits
EDUC 201
KIN 110
3 EDUC 202

CMPT 101
3 ENGL 110 3

MATH 185
3 Language 23

Language 1
3 MATH 1583

3 MATH 186
3

15
Second Year
Fall Credits Spring Credits

EDUC 206
3 EDUC 360
RELS 110
3 MATH 328 or 361
MATH 285
3 MATH 3723
MATH 243
3 EDUC 3113
EDUC 301
3 Social Science (ECON/POSC/ 3
PSYC**/SOC)

Third Year
Fall Credits Spring Credits
EDUC 378
MATH 377
3 EDUC 403
3

EDUC 408
3 MATH 387 3

SPCH 204
MATH 331
3 RELS 200-Level Course 3
3 MATH 361 or 3283
3 EDUC 4043
3 SCI Elective 3
18
Fourth Year
Fall
EDUC 453 or 455
EDUC 454 or 456
Credits Spring
Credits
3 EDUC 4063
3 ENGL Literature Elective 3
KIN 209
1 MATH 4893
3 MATH 3363
3 Fine Arts Elective 3 3

Total Credits: 127
Five-Year BS-MSED in Adolescence Education Mathematics
Offered through the School of Science, this program is a seamless Five-Year BS-MSED in Adolescence Education Mathematics. Students will complete all requirements for the BS in Adolescence Education - Mathematics in four years leading to initial NYS teaching certification in Adolescence Education - Mathematics. Students begin taking graduate courses in the junior and senior years, enabling completion of the MSED in the fifth year. Graduate courses are designed to give deep understanding of both mathematics and modern pedagogy. At the end of the Five-Year Program, students will have mastery of Mathematics in five key areas: Algebra, Geometry, Data and Statistics, Analysis and Number Theory.

## Teacher of Biology (Grades 7-12)

First Year

Fall
EDUC 201
KIN 110
MATH 155
BIOL 111
BIOL 113
Language 1

Credits Spring Credits
3 EDUC 202
3 BIOL $112 \quad 4$
3 Language 23
4 RELS 1103
0 BIOL 1140
3 MATH 1563

| Second Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Credits | Spring | Credits |
| EDUC 206 |  | 3 BIOL 223 | 4 |
| ENGL 110 |  | 3 BIOL 231 | 4 |
| BIOL 217 |  | 4 BIOL 232 | 0 |
| BIOL 218 |  | 0 CHEM 102 | 3 |
| CHEM 101 |  | 3 CHEM 104 | 1 |
| CHEM 103 |  | 1 EDUC 301 | 3 |
| SPCH 204 |  | 3 |  |
|  |  | 17 | 15 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| EDUC 380 |  | 3 EDUC 360 | 3 |
| EDUC 408 |  | 3 EDUC 403 | 3 |
| Social Science (ECON/POSC/ PSYC**/SOC) |  | 3 BIOL Elective ${ }^{\text {One elective course from }}$ the required BS list in cell \& molecular biology | 4 |
| BIOL Elective ${ }^{\text {In consultation with }}$ Biology advisor |  | 4 Fine Arts Elective | 3 |
| RELS 200-Level Course |  | 3 ENGL Literature Elective | 3 |
|  |  | 16 | 16 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| BIOL Elective ${ }^{\text {One coures that }}$ constitutes a Cell/Molecular or |  | 4 EDUC 406 | 3 |
| Organismal requirement for the BS |  |  |  |
| Biology program |  |  |  |
| EDUC 311 |  | 3 EDUC 453 | 3 |
| Elective |  | 3 PHIL Elective | 3 |
| RELS 300-Level Course |  | 3 EDUC 454 | 3 |
|  |  | KIN 209 | 1 |
|  |  | 13 | 13 |

Total Credits: 122

* For New York City License you will need to take both courses.


## Dual Teacher of Biology and Students with Disabilities (Grades 7-12)

First Year
Fall Credits Spring Credits

EDUC 201
KIN 110
MATH 155
EDUC 202
3
3 BIOL $112 \quad 4$
3 Language 23
BIOL 111
4 RELS 1103
0 BIOL 1140
3 MATH 156 3
$16 \quad 16$
Second Year
Fall
Credits Spring Credits
EDUC 206
3 BIOL 223
4
ENGL 110
3 BIOL $231 \quad 4$
BIOL 217
4 BIOL 2320
BIOL 218
0 CHEM 1023
CHEM 101
CHEM 103
3 CHEM 104 1
1 EDUC 3013
SPCH 2043
17 15
Third Year
Fall Credits Spring Credits
EDUC 380
3 EDUC 360
3
EDUC 408
3 EDUC 403
EDUC 358
3 BIOL Elective One elective course from
the required BS list in cell \& molecular
biology
BIOL Elective ${ }^{\text {In consultation with BIOL }} \quad 4$ Fine Arts Elective 3
advisor
RELS 200-Level Course 3 ENGL Literature Elective 3
16

## Fourth Year

Fall
Credits Spring
Credits
4 EDUC 406
BIOL Elective ${ }^{\text {One coures that }}$
constitutes a Cell/Molecular or
Organismal requirement for the BS
Biology program
EDUC 311
3 EDUC 453 or 455
EDUC 404
3 EDUC 454 or 456
RELS 300-Level Course
3 KIN 2091

| PHIL Elective | 3 Social Science (ECON/POSC/ <br> PSYC $\left.^{\star \star} / \mathrm{SOC}\right)$ |
| :--- | :--- |

Total Credits: 125

* For New York City License you will need to take both courses.
**Not PSYC 345 or 346
Show evidence of passing New York State exams (to be determined).


## Teacher of Chemistry (Grades 7-12)

## First Year

Fall
EDUC 201
Credits Spring
Credits

KIN 110
3 RELS 1103

MATH 185
3 Language 2 3

CHEM 101
3 MATH 186
Language 1
3 CHEM 1023
CHEM 103
1 CHEM 104 1
16

## Second Year

Fall
EDUC 206
ENGL 110
CHEM 319
CHEM 323
SPCH 204
RELS 200-Level Course

Credits Spring Credits
3 EDUC 3013
3 CHEM 3203
3 CHEM 3242
2 EDUC 3113
3 PHYS 1013
3 PHYS $191 \quad 1$
17
Third Year
Fall
Credits Spring
Credits
EDUC 380
CHEM 302 5 EDUC 403
3 EDUC 3603

CHEM 309
CHEM 310
3 CHEM 3353
3 MATH 2853
CHEM 311
2 EDUC $408 \quad 3$
16

## Fourth Year

Fall
ENGL Literature Elective
Credits Spring
Credits
3 EDUC 4063

RELS 300-Level Course
3 EDUC 453

PHYS 102
3 EDUC 454
PHYS 192
1 KIN 209 1
Social Science (ECON/POSC/
3 Fine Arts Elective 3 PSYC**/SOC)
PHIL Elective 3

Total Credits: 124

## Dual Teacher of Chemistry and Students with Disabilities (Grades 7-12)

Please note that this major includes a one credit overcharge, but graduates are eligible for an additional NYS certification.

First Year
Fall
Credits Spring
Credits
EDUC 201
3 EDUC 202 3
KIN 110
3 RELS 110
MATH 185
3 MATH 1863
3 Language 23
3 CHEM 1023
1 CHEM $104 \quad 1$
$16 \quad 16$
Second Year
Fall
EDUC 206
Credits Spring
Credits

ENGL 110
CHEM 319
3 EDUC 3013

3 CHEM 3203
3 CHEM 3242
2 EDUC 3113
3 PHYS 1013
3 PHYS $191 \quad 1$
17
Third Year
Fall Credits Spring Credits
EDUC 380
3 EDUC 360
EDUC 408
3 EDUC 4033

CHEM 302
5 CHEM 3353
CHEM 309
3 MATH 2853
EDUC 358
3 EDUC 4043
English Literature Elective 3

Fourth Year

| Fall | Credits | Spring |
| :--- | :--- | ---: |
| RELS 300-Level Course | 3 EDUC 406 | Credits |
| CHEM 310 | 3 EDUC 453 or 455 | 3 |
| CHEM 311 | 2 EDUC 454 or 456 | 3 |
| PHYS 102 | 3 KIN 209 | 3 |
| PHYS 192 | 1 Fine Arts Elective | 1 |
| PHIL Elective | 3 Social Science (ECON/POSC/ | 3 |
|  | PSYC*/SOC) | 3 |

Total Credits: 130
*Not PSYC 345 or 346
Show evidence of passing New York State exams (to be determined).

## Teacher of Physics (Grades 7-12)

First Year
Fall
EDUC 201
KIN 110
MATH 185
PHYS 101
Language 1
PHYS 191
Credits Spring
Credits
3 EDUC 202
3
3 MATH 1863
3 Language 23
3 PHYS 1023
3 RELS 1103
1 PHYS $192 \quad 1$
16
Second Year
Fall
Credits Spring Credits
ENGL 110
EDUC 206
MATH 285
SPCH 204
3 EDUC 311
3
3 PHYS 3123
3 PHYS 2343
3 EDUC 3013
3 PHYS 2093
15
15
Third Year
Fall Credits Spring Credits

EDUC 408
3 EDUC 3603

PHYS 309
RELS 200-Level Course
3 PHYS 350 3
3 PHYS $351 \quad 2$
3 Fine Arts Elective 3
3 PHIL Elective 3
15

## Fourth Year

| Fall | Credits | Spring |
| :--- | :--- | ---: |
| EDUC 403 | 3 EDUC 406 | 3 |
| PHYS 445 | 2 KIN 209 | 1 |
| ENGL Literature Elective | 3 EDUC 453 | 3 |
| Electives $\ln$ science or math in <br> consultation with physics advisor | 6 EDUC 454 | 3 |
| Social Science (ECON/POSC/ <br> PSYC**/SOC | 3 RELS 300-Level Course | 3 |

17

## Total Credits: 121

* *Not PSYC 345 or 346

Show evidence of passing New York State exams (to be determined).

## Dual Teacher of Physics and Students with Disabilities (Grades 7-12)

Please note that this major includes a two credit overcharge, but graduates are eligible for an additional NYS certification.

First Year
Fall
EDUC 201
KIN 110
MATH 185
PHYS 101
Language 1
Credits Spring
Credits
3 EDUC 202 3
3 MATH 1863
3 Language 23
3 PHYS 1023
3 RELS 1103
1 PHYS $192 \quad 1$
$16 \quad 16$
Second Year
Fall
ENGL 110
Credits Spring
Credits
3 EDUC 3113

EDUC 206
3 PHYS 312
3
MATH 285
3 PHYS 2343

SPCH 204
3 EDUC 3013

PHYS 233

3 PHYS 209 ..... 3

15
Third Year
Fall
EDUC 408
PHYS 309
Credits Spring
Credits
3 EDUC 360
3 PHYS 3503

PHYS 311
EDUC 380
EDUC 358

3 PHYS 3512
3 Fine Arts Elective 3
3 PHIL Elective 3
RELS 200 Level Course 3
15

## Fourth Year

Fall
EDUC 403
PHYS 445
ENGL Literature Elective
Electives ${ }^{\text {In science or math in }}$
consultation with physics advisor
EDUC 404
Credits Spring
Credits
3 EDUC 4063
2 KIN 2091
3 EDUC 453 or 4553
6 EDUC 454 or 4563

3 RELS 300-Level Course 3
Social Science (ECON/POSC/ 3
PSYC**/SOC

Total Credits: 127
**Not PSYC 345 or 346
Show evidence of passing New York State exams (to be determined).

## Middle School Extension (Grades 5-9) for English, Social Studies, Math, French or Spanish Concentrations

This extension requires the completion of six hours in the following two courses.
Please note that this major includes a two credit overcharge, but graduates are eligible for an additional NYS certification.

| EDUC 354 | Integrated Learning Grade 4-6 (30 field hours in the <br> candidate's content area - in grade 5 or 6 classroom $)$ | 3 |
| :--- | :--- | :--- |
| EDUC 375 | Theoretical Foundations of Teaching and Learning in the <br> Middle School Grades 7-9 (30 field hours in a middle school is <br> required) | 3 |

Candidates must show evidence of passing New York State exams (to be determined).

## Five Year BS/MS Ed program

This program is designed for the undergraduate student seeking dual certification in Adolescence English or Math or Social Studies and Students with Disabilities Generalist Extensions in English or Math or Social Studies for Grades 7-12.

Students who complete the first semester of their sophomore year with a cumulative index of 3.00 or better and grades of B or better in all required Education courses may apply to the Education Department for conditional acceptance into the five year BS/MS

Ed program, which leads to dual certification in Adolescence/ Students with Disabilities Generalist 7-12 Ext. (in English or Math or Social Studies). After completion of their junior year, candidates will apply to The Office of Graduate Admissions for formal admission. A cumulative GPA of 3.0 or better, grades of B or better in all Education courses, an essay, and the recommendation of two faculty members is required for formal admission. Upon satisfactory completion of specific program requirements, and successful completion of the New York State Educating All Students test (EAS), and required CST exams, students will be recommended for initial certification.

Please note that candidates who are interested in the five-year program should not take EDUC 301, EDUC 408, or EDUC 406.

Degree Program (155/158 credits)
Students complete the required sequence of undergraduate courses during freshman, sophomore, junior and senior year. In the fourth year they are enrolled in four graduate courses. In the Fifth year, students complete 22 graduate credits. Five year participants complete an internship in a Special Education setting full days during the Fall or Spring semester of the fifth year.

## FOURTH YEAR (12 Graduate Credits)

Semester One (or the semester when NOT student teaching):

| EDUG 778 | Nature and Needs of the Exceptional Individual | 3 |
| :--- | :--- | :--- |
| EDUG 781 | Management Techniques and Curriculum for the At Risk, | 3 |

Semester Two:
EDUG 733
Approaches to Multicultural Education for the At Risk, (ELL) 3
and Disabled Student

Choose one course from the following list (with input from the Graduate Special Education Director). 3 credits

| EDUG 766 | Literacy Instruction for At Risk, English Language Learner <br> (ELL) and Disabled Student. | 3 |
| :--- | :--- | :--- |
| EDUG 815 | Curriculum, Assessment and Methods of Teaching English as <br> a Second Language in Gen and Spe Ed | 3 |
| EDUG 826 | Improvement of Instruction for Teachers of At Risk, English <br> Language Learner (ELL) and Disabled | 3 |
| EDUG 830 | Curriculum Adaptation \& Content Strategies for At Risk, (ELL) <br> \& the Disabled | 3 |

Total Credits 12
Please see the Graduate Education pages for more information.

## Childhood Ed Grades 1-6

Chair of the Department
Students successfully completing all requirements, including their course requirements, clinical requirements, New York State Teacher Exams, and the Child Abuse and Neglect Reporting Workshop, the SAVE Workshop, and the DASA workshop, will be recommended for New York State initial certification.

## First Year

Fall Credits Spring Credits

EDUC 201
3 ENGL 110 3
KIN 110
3 SCI 240 3
LANGUAGE 1
3 EDUC 318 3
MATH 221
3 LANGUAGE 2 3

RELS 110
3 MATH 2223
Concentration One 3
15

## Second Year

Fall
EDUC 311
RELS 200-Level Course
EDUC 301
BIOL 103
BIOL 104
HIST 206 or 207
Credits Spring
Credits
3 EDUC 303
3
3 EDUC 353 3
3 Concentration Two 3
3 English Lit. Elective 3
0 Concentration Three 3
3
15

## Third Year

Fall Credits Spring Credits

EDUC 354
EDUC 401
SPCH 204
Concentration Four
Concentration Five
Credits Spring
3 EDUC 4083
3 EDUC 4023
3 SCI 2423
3 Concentration Six 3
3 Concentration Seven 3
15

## Fourth Year

Fall Credits

Spring
Credits
3 EDUC 3573

RELS 300-Level Course 3 EDUC 418 3
Fine Arts Elective
3 EDUC 438 3
Concentration Eight
3 KIN $209 \quad 1$
Concentration Nine
3 Concentration Ten

## Social Science (ECON/POSC/ <br> PSYC**/SOC)

## Total Credits: 124

This progression is not applicable to all programs.
Important note: The Chemistry and Math concentrations require students to also take Math 185 and Math 186.

## Dual-Childhood and Students with Disabilities (Grades 1-6)

## First Year

Fall Credits Spring Credits
EDUC 201
3 ENGL 110
KIN 110
3 SCI 240
Language 1
3 EDUC 318 3
MATH 221
RELS 110
3 MATH 2223
3 Language 23
Concentration 13
15
Second Year
Fall
EDUC 311
Credits Spring
Credits
3 EDUC 303 3
EDUC 301
3 EDUC 3533
BIOL 103
3 Social Science (ECON/POSC/ 3 PSYC**/SOC)
BIOL 104
RELS 200-Level Course
0 ENGL Literature Elective 3
3 Concentration Two 3
HIST 206 or 207
3 Concentration Three 3
15
Third Year
Fall
EDUC 401
Credits Spring
Credits
3 EDUC 408
EDUC 354
3 EDUC 402
SPCH 204
3 EDUC 3563
3 SCI 2423
3 Concentration Five 3
Concentration Six 3

Fourth Year

Fall
EDUC 406
Fine Arts Elective
Concentration Seven
Concentration Nine
Concentration Eight

Credits Spring Credits
3 EDUC 357 3
3 KIN 2091
3 EDUC 444 or 4183
3 EDUC 446 or 4383
3 Concentration Ten 3
RELS 300-Level Course 3
15
Total Credits: 130
This progression is not applicable to all programs.
Important note: The Chemistry and Math concentrations require students to also take Math 185 and Math 186.
Dual-Childhood/Special Education majors show evidence of passing New York State exams (to be determined).

Note: This is the general plan for Childhood Education majors. Each student receives a specific program plan based on his or her selected academic concentration.

Academic Concentrations available with Dual Certification are the same as listed with Childhood Education.

Please note that this major includes a two credit overcharge, but graduates are eligible for an additional NYS certification.

## INFORMATION ABOUT CONCENTRATIONS

BIOLOGY*

| BIOL 111 | General Biology I | 4 |
| :--- | :--- | ---: |
| BIOL 113 | General Biology I Laboratory | 0 |
| BIOL 112 | General Biology II | 4 |
| BIOL 114 | General Biology II Laboratory | 0 |
| BIOL 217 | Genetics | 4 |
| BIOL 225 | Microbiology | 4 |
| BIOL 301 | Comparative Chordate Anatomy | 4 |
| BIOL 302 | Developmental Biology | 4 |
| KIN 309 | Anatomical Kinesiology | 2 |
| BIOL 320 | Animal Physiology | 4 |
| Total Credits |  | 30 |
| CHEMISTRY* |  |  |
| CHEM 101 | General Chemistry I | 3 |
| CHEM 103 | General Chemistry Laboratory I | 1 |


| CHEM 102 | General Chemistry II | 3 |
| :--- | :--- | ---: |
| CHEM 104 | General Chemistry Laboratory II | 1 |
| CHEM 319 | Organic Chemistry I | 3 |
| CHEM 323 | Organic Chemistry Laboratory I | 2 |
| CHEM 320 | Organic Chemistry II | 3 |
| CHEM 324 | Organic Chemistry Laboratory II | 2 |
| CHEM 302 | Analytical Chemistry | 5 |
| CHEM 309 | Physical Chemistry I | 3 |
| CHEM 310 | Physical Chemistry II | 3 |
| CHEM 311 | Physical Chemistry Laboratory | 2 |
| CHEM 335 | Inorganic Chemistry | 3 |
| Total Credits |  | $\mathbf{3 4}$ |
| ENGLISH |  |  |
| ENGL 306 |  |  |
|  | Introduction to Literary Study (One course from "Literary | 3 |

## For full concentration (30 credits):

## English Concentration Electives:

Three courses (9 credits) at the 300- or 400-level from "Literary History and National Traditions," one from each of the three literary periods listed.

One course from three of the remaining four categories (9 credits): "Theory, Media, and Praxis"; "Writing"; "Genre and Author Studies"; and "Global and Cultural Perspectives"

3 additional 300- or 400-level courses ( 9 credits), including one labeled "Sophomore/ Junior research seminar."

## Total: 30 credits

## For general studies (15 credits):

One course from "Literary History and National Traditions (any period) - 3 credits
Three additional 300- or 400-level courses, from at least two of the remaining categories 9 credits

## Total: 15 Credits

Additional details about elective options for Education majors will be found in the English section of this catalog.
FRENCH and FRANCOPHONE STUDIES*
Two 200-level courses 6
FREN 301 Advanced French Conversation and Phonetics 3
or FREN 307 Advanced Grammar and Composition
Five Courses in French at the 300-400 level (Chair approval)
Choose two courses from the following: FREN 303, FREN 340, FREN 341, ..... 6
FREN 342, FREN 350, FREN 351
30 Credits of French ..... 30
GENERAL SCIENCE**
BIOL 111 General Biology I ..... 4
BIOL 113 General Biology I Laboratory ..... 0
SCI 201 Introduction Astronomy ..... 3
BIOL 112 General Biology II ..... 4
BIOL 114 General Biology II Laboratory ..... 0
CHEM 101 General Chemistry I ..... 3
CHEM 103 General Chemistry Laboratory I ..... 1
CHEM 102 General Chemistry II ..... 3
CHEM 104 General Chemistry Laboratory II ..... 1
Physics Electives ..... 6
SCI 202 Introduction Geology ..... 3
SCI Elective ..... 3
Total Credits ..... 31
Note: General Science majors do not take BIOL 103 or 104.
MATHEMATICS*
MATH 321 Fundamental Concepts: Algebra \& Number Theory 3
MATH 322 Fundamental Concepts: Geometry \& Measurement ..... 3
MATH 326 Fundamental Concepts: Discrete Math ..... 3
MATH 155 Calculus for the Life Sciences I (Take in the fall semester of ..... 3freshman year.)
or MATH 185 Calculus IMATH $156 \quad$ Calculus for the Life Sciences II (Take in the spring semester 3of freshman year.)
or MATH 186 Calculus II
MATH 243 Foundations for Higher Mathematics ..... 3
MATH 230 Elementary Statistics ..... 3
or MATH 336 Applied Statistics
MATH 243 Foundations for Higher Mathematics ..... 3
Choose from the following to total 30 hours MATH 285 Calculus III ..... 3
MATH 286 Differential Equations ..... 3
MATH 331 Probability ..... 3
MATH 361 Introduction to Higher Geometry ..... 3
MATH $372 \quad$ Linear Algebra I ..... 3
Total Credits 30
PSYCHOLOGY
PSYC 203 Introduction to Psychology ..... 3
PSYC 321 Social Psychology ..... 3
PSYC 214 Statistics and Research Methods I ..... 3
PSYC 314 Statistics and Research Methods II ..... 3
PSYC 340 Cognition and Learning ..... 3
PSYC 333 Motivation and Emotion ..... 3
PSYC 421 Psychopathology ..... 3
PSYC 310 Psychology of Developmental Disorders and Delays ..... 3
PSYC Electives ..... 6
Total Credits 30
*For the PSYC Electives, choose two courses from the following: PSYC 302, PSYC 343, PSYC 347,PSYC 348, PSYC 316
SOCIAL STUDIES*
HIST $206 \quad$ United States Through 1876 ..... 3
or HIST $207 \quad$ United States Since 1876
HIST $217 \quad$ World History to 1600 ..... 3
HIST $218 \quad$ World History Since 1600 ..... 3
One World History Elective ..... 3
Three courses from either ECON, POLITICAL SCIENCE, or SOC ..... 9
300-level History courses ..... 9
Total Credits ..... 30
SPANISH and LATIN AMERICAN STUDIES
Two 200 -level courses Only if placed on this level ..... 6
SPAN 307 Advanced Grammar ..... 3
SPAN 340 Spanish Civilization ..... 3
SPAN 341 Spanish American Civilization ..... 3
Two courses at the 400-level ..... 6
Spanish Electives (Chair approval) ..... 6
SPAN 317 Introduction to Hispanic Literature ..... 3
Total credits $=30$

* Upward certification (Grade 7-9) is available


## GENERAL STUDIES

The General Studies concentration has a total of 30 credits. Students must select TWO areas of concentration and complete 15 credits in EACH area. At least one of the areas
(15 credits) must be from list one: English, French, General Science, Mathematics, or Spanish. The other area of concentration ( 15 credits) can also be from list one or from list two: Political Science, History, Psychology, or Sociology.

## CONCENTRATION COURSES FOR GENERAL STUDIES

## List One:

English includes the following 5 courses: ENG 306, One course from "Literary History and National Traditions (any period), one 300- or 400-level course from one of the following categories: "Theory, Media, and Praxis"; "Writing"; "Genre and Author Studies"; and "Global and Cultural Perspectives", another 300- or 400-level course, from a new categories: "Theory, Media, and Praxis"; "Writing"; "Genre and Author Studies"; and "Global and Cultural Perspectives", One 300 or 400-level English course

French includes the following 5 courses: Two 200-level courses;Three 300-400 -level courses

Spanish includes the following 5 courses: Two 200-level courses;Three 300-400-level courses

General Science includes the following 5 courses: SCI 201, SCI 202, SCI 221,BIO 221 (Nutrition), Science Elective ( Science 210, Science 323)

Mathematics includes the following 5 courses: MATH 321, MATH 322, MATH 230, MATH 326, MATH 100/151/155 or 185

## List Two:

Political Science includes the following 5 courses: POSC 201, POSC 203, POSC 205, POSC 209, POSC elective

History includes the following 5 courses: HIST 206 or HIST 207 (One of these will be applied as a core course.), HIST 217, HIST 218, HIST Elective (HIST 100 or a 200-level courses), HIST Elective (HIST 100 or a 200 -level courses)
Psychology includes the following 5 courses: PSYC 203, PSYC 333 OR PSYC 340, two courses ( 6 credits) from the following: PSYC 214,PSYC 321, PSYC 421, PSYC 310, PSYC 333, PSYC 340, PSYC 347, and a free PSYC elective (3 credits), not allowed: PSYC 345, 346, 334, 314, or 414.

Sociology includes the following options for the $\mathbf{5}$ courses:
Option 1: Five (5) courses: SOC 201 and four (4) electives from the following options: SOC 204, SOC 209, SOC 210, SOC 302, SOC 304, SOC 308, SOC 313 and SOC 338

Option 2: Five (5) courses: SOC 201, two (2) courses chosen from SOC 204, SOC 209, SOC 210, and two (2) courses chosen from SOC 302, SOC 304, SOC 308, SOC 313, and SOC 338

## EXTENSIONS

## Early Childhood Extension (birth through grade two)

This extension requires an additional six hours earned in the following courses:

| EDUC 440 | Education of the Young Child (50 field hours required) | 3 |
| :--- | :--- | :--- |
| EDUC 442 | Early Childhood Student Teachi (20 full days of field required) | 3 |
| Please note that these hours must be evenly split between the different levels of |  |  |
| early childhood education. In addition, one student teaching placement must be in a |  |  |
| grade 1 or 2 classroom setting. |  |  |

## Middle School Extension (Grades 5-9)

This extension requires an additional six hours earned in two of the following courses:
Choose One of the following:
EDUC $376 \quad$ Curriculum and Methods of Teaching English Grades 7-12 3
EDUC $377 \quad$ Curriculum and Methods of Teaching Social Studies Grades 3 7-12
EDUC $378 \quad$ Curriculum and Methods of Teaching Mathematics Grades 3 7-12
EDUC $379 \quad$ Curriculum and Methods of Teaching Foreign Language 3 Grades 7-12
EDUC $380 \quad$ Curriculum and Methods of Teaching Science Grades 7-12 3
30 field hours -in the candidate's concentration area- in a middle school is required
And:
EDUC 375 Theoretical Foundations of Teaching and Learning in the 3 Middle School Grades 7-9 (30 field hours in a middle school is required)

Please note that to obtain teaching certification for Grades 7-9, candidates must take an additional content specialty in an appropriate subject.

## Five-Year: Childhood/Special Education (Grades 1-6) (BS/MSED in Special Education) <br> Dual Certification Childhood Education/Students with Disabilities - Grades 1-6

This Five Year program is designed for the undergraduate student seeking dual certification for Childhood/Students with Disabilities Grades 1-6.

Students who complete the first semester of their sophomore year with a cumulative index of 3.00 or better and grades of B or better in all required Education courses may apply to the Education Department for conditional acceptance into the five year BS/MS Ed program, which leads to dual certification in Childhood/ Students with Disabilities, Grades 1-6. After completion of their junior year, candidates will apply to The Office of Graduate Admissions for formal admission. A cumulative GPA of 3.0 or better, grades of B or better in all Education courses, an essay, and the recommendation of two faculty members is required for formal admission. Upon satisfactory completion of specific program
requirements, and successful completion of the New York State Educating All Students test (EAS), and required CST exams, students will be recommended for initial certification.

Please note that candidates who are interested in the five-year program should not take EDUC 301, EDUC 408, or EDUC 406.

## Degree Program is 127 credits for the undergraduate program and 151/152 credits total (with the 5th year).

Students complete the required sequence of undergraduate courses during freshman, sophomore, junior and senior year. In the fourth year they are enrolled in four graduate courses. In the Fifth year, students complete 22 graduate credits. Five year participants complete an internship in a Special Education setting full days during the Fall or Spring semester of the fifth year. Twelve credits need to be completed in a content area that covers Math, Science, Social Studies and Language Arts. Six credits of these content required courses may be taken in the Fourth Year.

## FOURTH Year - GRADUATE COURSES (12 Credits)

Semester One (or the semester when NOT student teaching):

| EDUG 778 | Nature and Needs of the Exceptional Individual | 3 |
| :--- | :--- | :--- |
| EDUG 781 | Management Techniques and Curriculum for the At Risk, | 3 |

Semester Two (or the semester when student teaching):
EDUG 733 Approaches to Multicultural Education for the At Risk, (ELL)and Disabled Student

Choose one course from the following list:

| EDUG 753 | Teaching Reading in Content Areas for At Risk, English Lang <br> Learner(ELL) \& Disabled (Grades K-12) | 3 |
| :--- | :--- | :--- |
| EDUG 754 | Literature for the At Risk, (ELL) and Disabled (Grades K-12) | 3 |
| EDUG 766 | Literacy Instruction for At Risk, English Language Learner <br> (ELL) and Disabled Student. | 3 |
| EDUG 815 | Curriculum, Assessment and Methods of Teaching English as <br> a Second Language in Gen and Spe Ed | 3 |
| EDUG 805 | Integrated Learning I:Social Studies \& Language Arts <br> Instruction for the At Risk, ELL \& Disabled Stu | 3 |
| EDUG 808 | Integrated Learning II:Social Studies\&Language Arts Ins for <br> the At Risk, ELL \& Disabled Student | 3 |
| EDUG 785 | Life Science for At Risk, English Language Learner (ELL) and <br> Disabled Student (Grades K-8) <br> Integrated Curriculum: Math, Science \& Technology I for the | 3 |
| EDUG 768 | At Risk, ELL and Disabled Student K-8 <br> Mathematics Instruction for At Risk, English Language Learner <br> (ELL) and Disabled (Grades K-8) | 3 |
| EDUG 775 | Integrated Curriculum II:Math,Sci \& Tech for At Risk ELL and | 3 |

EDUG 899 Physical Science for the Teacher of the At Risk and Disabled ..... 3 (Grades K-8)
EDUG 776 Science Instruction for the At Risk, English Language Learner ..... 3 [ELL] and Disabled

Total Credits 12
Please see the Graduate Education pages for more information.
Five-Year Childhood/Special Education majors show evidence of passing New York State exams (to be determined).
Note: This is the general plan for Five-Year: Childhood/Special Education, each student receives a specific program plan based on his/her selected academic concentration.
Academic Concentrations available with the Five-Year Program are the same as listed with Childhood Education.
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## E3MC General Studies

The E3MC program - short for Educating, Engaging, and Empowering means change offers an accredited college class each semester to individuals incarcerated in the New York City and Westchester County jails who take the course in conjunction with students from our main campus. The course choice for incarcerated students is currently limited to one per semester. The content of the course reflects the expertise of the faculty of record teaching the course. Those confined persons who successfully complete the course will receive an admission letter to take classes at Manhattan College upon release. This highquality educational experience helps each incarcerated and formerly incarcerated student cultivate psychological resources that help them realize their potential and personal worth, opening up a whole new world of opportunities.

E3MC students earn this certificate after completing 15 credits at Manhattan College. While students would be free to choose among courses in regular rotation and currently in the curriculum, they will be advised to choose appropriate core curriculum courses in the School of Liberal Arts.

## Sample E3MC Certificate in General Studies Course Progression:

ENGL 110 First Year Composition
RELS 110 The Nature and Experience of Religion
SOC 150 Roots: Sociology
POSC 150 Roots: Government
RELS 399 Criminal Justice Ethics
For more information on the E3MC program, please click here (https://manhattan.edu/ admissions/e3mc/).

## Economics

## Major

Students enrolled in the School of Liberal Arts and who wish to pursue a major in Economics must take:

MATH 153 Finite Mathematics for Business Decisions 3
MATH 154 Calculus for Business Decisions 3
BUAN 227 Business Statistics 3
ECON 203 Microeconomics 3
ECON 204 Macroeconomics 3
or ECON 150 Roots: Economics
ECON $301 \quad$ Intermediate Price Analysis 3
ECON 302 Intermediate Macroeconomics 3
ECON $305 \quad$ Money and Banking 3
ECON 334 International Economics 3
ECON 433 Econometrics 3
Three approved electives in Economics 9
*Or approved substitutes
A minimum grade of $C$ is necessary to receive major credit.

## Minor

Students who are in Schools other than Business may pursue a minor in Economics.
Students must obtain the permission of the School in which they are enrolled.

| ECON 203 | Microeconomics | 3 |
| :---: | :--- | :--- |
| ECON 204 | Macroeconomics | 3 |
| or ECON 150 | Roots: Economics |  |

Three approved electives in Economics ..... 9
Total Credits ..... 15

## English

Dr. Adam Koehler<br>Chair of the Department

The goals of the English major at Manhattan College are to develop in students an understanding of literary texts and issues that is coherent, informed, and broadly responsive; to develop in students the ability to articulate that understanding orally and in writing through a critical vocabulary and a variety of methodological and rhetorical structures; and to develop that understanding in a range of courses in English literature, American literature, and world literature in translation.

Requirements for the Major in English. Thirty credits at the 300 level, including three foundational courses ( 9 credits) and six distribution courses ( 18 credits).

## Foundational Courses

| ENGL 306 | Introduction to Literary Study | 3 |
| :--- | :--- | :--- |
| ENGL 395 | Senior Seminar | 3 |
| English 300 Elective <br> a seminar each semester  | Sophomore/Junior Seminar (one regular 300 level course will be designated as | 3 |

## Total Credits

## Elective Distribution Requirements

All students must take three courses in the Literary History and National Traditions category ( 9 credits total) as follows:

Pre-18th Century (3 credits)
18th and 19th Centuries (3 credits)
20th and 21st Centuries (3 credits)
They must also take one course each from three of the following categories (9 credits total):

Theory, Media, and Praxis
Global and Cultural Perspectives
Writing
Author and Genre
Free Elective (3 credits)

## Literary History \& National Traditions

Literary History and National Traditions courses seek to foster students' knowledge of the complex history of literature and the development of specific literary traditions across a range of cultures, emphasizing the diversity of American and British cultures and resistance to those cultures. Analyzing continuities and changes, courses will offer a focused study of major literary periods, authors, and texts within their historical contexts.

Three courses from the following are required: one in pre-18th c. studies; one in 18th and 19th c. studies; and one in 20th and 21st c. studies. At least one course should focus on American literature.

Pre-18th Century Studies
ENGL 309 British Literature: Beowulf to the Augustan Age 3
ENGL 312 Studies in Medieval British Literature 3
ENGL 323 Studies in Eighteenth-Century British Literature 3
ENGL 329 Shakespeare: Comedies, Histories, and Hamlet 3
ENGL 330 Shakespeare II 3
ENGL 331 History of the English Language 3
ENGL 343 The Art of Dying: Studies in Renaissance Literature 3
ENGL 369 Chaucer 3
ENGL 370 Milton 3
18th \& 19th Century Studies
ENGL $310 \quad$ British Literature II: The Romantics through the 20th Century 3
ENGL 334 Romantic Matter(s): Subjects \& Objects 3
ENGL 335 Victorian Media 3
ENGL 372 American Literature to 19143
ENGL 374 Lust, Passion, and the Body: The American Novel to 1914
ENGL 375 Landscape \& Identity: Studies in Early \& Nineteenth Century 3
American Literature
20th \& 21st Century Studies

| ENGL 305 | African American Literature | 3 |
| :--- | :--- | :--- |
| ENGL 338 | Studies in Twentieth-and Twenty-first-Century American <br> Literature | 3 |
| ENGL 346 | Twentieth Century Irish Literature | 3 |
| ENGL 364 | The Modern \& Contemporary British Novel | 3 |
| ENGL 373 | American Fiction since 1914 | 3 |
| ENGL 378 | Modern American Literature | 3 |
| ENGL 379 | Contemporary American Literature | 3 |
| ENGL 381 | Studies in Identity: 20th Century American Drama | 3 |
| ENGL 376 | American Poetry | 3 |
| ENGL 356 | Latino New York: Cultural Identities and Expressions | 3 |
| ENGL 357 | Postcolonial Caribbean Literatures: Defining a Region | 3 |
| ENGL 366 | Modernism: Eliot, Woolf, Lawrence, and Company | 3 |
| ENGL 382 | New York City, Modernity, and Postmodernity | 3 |
| ENGL 386 | Literature and Early Cinema at the Turn of the Twentieth | 3 |

Theory, Media, and Praxis

Theory, Media, and Praxis courses devote specific attention to the study, critique, and/ or application of particular theoretical paradigms that do not merely and implicitly guide learning objectives or methods of critical reading and writing but rather form an object of explicit inquiry and engagement in course readings and assignments. These courses may also introduce and investigate new media forms or practices for the dissemination, reading, and analysis of primary and secondary works, including new digital tools and platforms while also attending to the mediated nature of all literary and artistic communication.

| ENGL 333 | Sin and Syntax: Grammar, Identity, and the Writer | 3 |
| :--- | :--- | :--- |
| ENGL 334 | Romantic Matter(s): Subjects \& Objects | 3 |
| ENGL 335 | Victorian Media | 3 |
| ENGL 337 | Gender, Sexuality, and Literature | 3 |
| ENGL 345 | Environmental Literature and Ecocriticism | 3 |
| ENGL 348 | Postcolonial Literature | 3 |
| ENGL 358 | Bibliomania, Archives, and the Afterlives of Books | 3 |
| ENGL 359 | Technotopias \& Cyborg Dreams | 3 |
| ENGL 360 | The Little Magazine: Contemporary Literary Publishing | 3 |
| ENGL 367 | Literary Criticism | 3 |
| ENGL 382 | New York City, Modernity, and Postmodernity | 3 |
| ENGL 384 | Violence \& Performativity | 3 |
| ENGL 385 | Film Narrative | 3 |
| ENGL 386 | Literature and Early Cinema at the Turn of the Twentieth | 3 |

## Global and Cultural Perspectives

Global and Cultural Perspectives courses focus on poetry, short stories, dramas, novels, and films that embrace and/or interrogate the complexities of human identity, either in a historical or a contemporary context. Students can expect to examine such issues as race, ethnicity, gender, sexual orientation, class, and national identity, with several courses prioritizing how these various identities intersect and inform one another. Many of the courses also inquire into various historical institutions (colonialism, slavery, etc.) and practices (immigration, globalization, war, etc.) that shape both practical and theoretical understandings of identity.

| ENGL 305 | African American Literature | 3 |
| :--- | :--- | :--- |
| ENGL 337 | Gender, Sexuality, and Literature | 3 |
| ENGL 339 | Poetics of Witness | 3 |
| ENGL 346 | Twentieth Century Irish Literature | 3 |
| ENGL 347 | Literature and War | 3 |
| ENGL 348 | Postcolonial Literature | 3 |
| ENGL 356 | Latino New York: Cultural Identities and Expressions | 3 |
| ENGL 357 | Postcolonial Caribbean Literatures: Defining a Region | 3 |
| ENGL 374 | Lust, Passion, and the Body: The American Novel to 1914 | 3 |
| ENGL 380 | Growing Up Ethnic: The Ethnic-American Bildungsroman | 3 |


| ENGL 381 | Studies in Identity: 20th Century American Drama | 3 |
| :--- | :--- | :--- |
| ENGL 388 | Feminism \& Film | 3 |

## Writing

Writing courses provide an opportunity for students to practice and interrogate a range of literary genres (fiction, poetry, and creative non-fiction) while examining the cultural and literary responsibilities of the writer. Through active and close reading, as well as the rigorous practice of craft and technique, these courses invite students to see the writing of an imaginative text as a critical and cultural act that illuminates what the best literature always does: what it means to be human. These courses will include assignments and activities for students interested in publishing, teaching, and communications.

ENGL 326 Writing Studies 3
ENGL 332 Theories of Composition 3
ENGL 333 Sin and Syntax: Grammar, Identity, and the Writer 3
ENGL $340 \quad$ Studies in Creative Writing - Poetry Workshop (Repeatable 3 with Poetry)
ENGL $350 \quad$ Studies in Creative Writing: Fiction Workshop 3
ENGL 355 Studies in Creative Writing: Non-Fiction Workshop 3
ENGL 360 The Little Magazine: Contemporary Literary Publishing 3

## Genre \& Author Studies

Genre and Author Studies courses will interrogate and analyze the conventions, writers, and structures of literary genres (fiction, drama, poetry, and creative non-fiction) and specific subgenres, while also learning how texts both reflect and complicate their social, historical, and cultural contexts. Students will incorporate literary theory to amplify and enhance their understanding of form and content. Courses listed under author studies allow students to read deeply the works of a single author, or a select group of authors, in order to gain a rich and complex understanding of the scope and breadth of their work.

ENGL 323 Studies in Eighteenth-Century British Literature 3
ENGL 329 Shakespeare: Comedies, Histories, and Hamlet 3
ENGL 330 Shakespeare II 3
ENGL 347 Literature and War 3
ENGL 359 Technotopias \& Cyborg Dreams 3
ENGL 364 The Modern \& Contemporary British Novel 3
ENGL 365 Children's Literature 3
ENGL 366 Modernism: Eliot, Woolf, Lawrence, and Company 3
ENGL 369 Chaucer 3
ENGL 370 Milton 3
ENGL 373 American Fiction since 19143
ENGL 374 Lust, Passion, and the Body: The American Novel to 1914
ENGL 376 American Poetry 3

ENGL 381 Studies in Identity: 20th Century American Drama 3
ENGL 400 The Theater and the City 3

* Students in the School of Education with a concentration in Childhood Education must take ENGL 365 Children's Literature

Additional details about elective options for Education majors will be found in the Education section of this catalog.

A minimum grade of C is required for all major courses. ENGL 110 First Year Composition or its equivalent is a prerequisite for all 300 level courses.

## Minor

Requirements for a Minor in English: Fifteen credits on the 300 level including:
ENGL 306 Introduction to Literary Study 3
Elective 3
One 300 level class in Literary History and National Traditions 3
Of the three remaining 300 level courses, at least two must be from different 6 categories
Total Credits
Students from the Schools of Business, Engineering, and Education may count one 200level Literature course toward credit for the minor. A minimum grade of $C$ is required for courses to satisfy these requirements.

## Environmental Studies

Environmental Studies is an interdisciplinary course of study that promotes an understanding of the relationship between human beings and their environment. Open to all students of the College, the program is designed as a major or minor for students in the School of Liberal Arts and as a minor or second major for students in any other school. The program provides students with a liberal arts experience that focuses on the complex interrelationship among the scientific, political, economic, ethical, and aesthetic ideas that underlie environmental issues. The program has been designed for both science and non-science majors, serving to broaden their environmental education in ways that can help all students prepare for future careers in the fields of environmental policy or education, while giving students who plan careers in science or engineering a crucial background for understanding the social contexts in which their work will take place.

## Major

Requirements for a major in Environmental Studies
A minimum of thirty (30) credits, distributed as follows:
Sciences and Engineering: Students in the major must take a minimum of nine (9) credits in environmental science or engineering from the approved list of courses below. Students should be advised that there may be pre-requisites they must meet in order to take advanced science courses.

| BIOL 223 | Ecology | 4 |
| :--- | :--- | ---: |
| BIOL 231 | Evolution | 4 |
| BIOL 304 | Invertebrate Zoology | 4 |
| BIOL 305 | Plant Biology | 4 |
| BIOL 326 | Animal Behavior | 4 |
| BIOL 409 | Marine Biology | 4 |
| BIOL 431 | Freshwater Ecology | 4 |
| BIOL 432 | Estuarine and Coastal Ecology | 4 |
| CEEN 405 | Construction Planning and Scheduling | 3 |
| ENGS 204 | Environmental Engineering Principles I | 3 |
| ENSC 101 | Intro to Environmental Science | 3 |
| ENVL 316 | Environmental Engineering Field Applications | 3 |
| MATH 151 | Topics in Modern Mathematics | 3 |
| SCI 203 | Topics in Science I |  |
| SCI 204 | Topics in Science II | 3 |
| SCI 323 | Topics in Applied Conservation | 3 |
| ENSC 301 | Environmental Science I | 3 |
| ENSC 302 | Environmental Science II | 3 |

[^1]Humanities and Social Sciences: Students in the major must take a minimum of eighteen (18) credits in the Humanities and Social Sciences from the approved list of courses below. All students in the program must take POSC 223 Environmental Politics.

| CEEN 309 | Environmental Law | 3 |
| :---: | :---: | :---: |
| ENGL 279 | Literature and the Environment ** | 3 |
| ENGL 345 | Environmental Literature and Ecocriticism | 3 |
| EVST 399 | Independent Study in Environmental Studies | 3 |
| EVST 400 | Field Project in Environmental Studies | 3 |
| HIST 377 | Science, Technology, and Society | 3 |
| PHIL 205 | Environmental Ethics | 3 |
| POSC 223 | Environmental Politics | 3 |
| RELS 372 | Religion and Science | 3 |
| RELS 377 | Religion and Environmentalism | 3 |
| SOC 303 | Urban Planning | 3 |
| URBN 302 | Sustainable Cities | 3 |
| SOC 250 | Introduction to GIS | 3 |
| SOC 350 | Advanced Topics in Geographic Information Systems (GIS) | 3 |
| SOC 307 | Research Methods | 3 |
| With permission of Director and Instructor |  |  |
| ECON 332 | Introduction to Environmental Economics | 3 |
| ECON 432 | Applied Environmental Economics | 3 |
| SOC 334 | Sustainable Development | 3 |
| POSC 210 | Research Methods in Political Science | 3 |
| With permission of Instructor and Director |  |  |
| With permission of Instructor and Director |  |  |
| POSC 318 | Community Organizing for Social Change | 3 |
| With permission of Instructor and Diector |  |  |
| RELS 204 | Religion and Social Justice | 3 |
| With Permission of Instructor and Director |  |  |
| RELS 205 | Urban America and Catholic Social Teaching | 3 |
| With permission of Instructor and Director |  |  |

** Only one English course permitted
*** Only one Religious Studies course permitted

Capstone: All students in the major must take the three-credit capstone course during their senior year.
EVST 490 Senior Seminar in Environmental Studies
A minimum grade of $C$ is required for all courses counting toward the major.

## Minor

Requirements for a Minor in Environmental Studies:
Students in the minor must take at least fifteen (15) credits from the approved list of courses below. At least one course (but no more than two) must be from the approved list of science and engineering courses. Students should be advised that there may be prerequisites they must meet in order to take advanced science courses. All students in the program must take POSC 223 Environmental Politics.
Sciences and Engineering:

| BIOL 223 | Ecology | 4 |
| :---: | :---: | :---: |
| BIOL 231 | Evolution | 4 |
| BIOL 304 | Invertebrate Zoology | 4 |
| BIOL 305 | Plant Biology | 4 |
| BIOL 326 | Animal Behavior | 4 |
| BIOL 409 | Marine Biology | 4 |
| BIOL 431 | Freshwater Ecology | 4 |
| BIOL 432 | Estuarine and Coastal Ecology | 4 |
| CEEN 405 | Construction Planning and Scheduling | 3 |
| ENGS 204 | Environmental Engineering Principles I | 3 |
| ENSC 101 | Intro to Environmental Science | 3 |
| MATH 151 | Topics in Modern Mathematics | 3 |
| ENVL 316 | Environmental Engineering Field Applications | 3 |
| SCI 202 | Introduction Geology | 3 |
| SCI 203 | Topics in Science I | 3 |
| SCI 204 | Topics in Science II | 3 |
| SCI 210 | Introductory Oceanography | 3 |
| SCI 221 | Introduction Meteorology | 3 |
| SCI 323 | Topics in Applied Conservation | 3 |
| ENSC 301 | Environmental Science I | 3 |
| ENSC 302 | Environmental Science II | 4 |
| * When these courses are on an environmental topic. Must be approved by the Environmental Studies program director. |  |  |
| Humanities and Social Sciences: |  |  |
| CEEN 309 | Environmental Law | 3 |
| ENGL 279 | Literature and the Environment | 3 |
| ENGL 345 | Environmental Literature and Ecocriticism | 3 |
| EVST 301 | Special Topics in Environmental Studies | 3 |
| EVST 399 | Independent Study in Environmental Studies | 3 |
| EVST 400 | Field Project in Environmental Studies | 3 |

HIST 377 Science, Technology, and Society ..... 3
PHIL 205 Environmental Ethics ..... 3
POSC 223 Environmental Politics ..... 3
RELS 372 Religion and Science ..... 3
RELS 377 Religion and Environmentalism ..... 3
SOC 303 Urban Planning ..... 3
URBN 302 Sustainable Cities ..... 3
ECON 332 Introduction to Environmental Economics ..... 3
ECON 432 Applied Environmental Economics ..... 3
POSC 318 Community Organizing for Social Change ..... 3
With permission of Instructor and Director
POSC 210 Research Methods in Political Science ..... 3
With permission of Instructor and Director SOC 250 Introduction to GIS ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
SOC 334 Sustainable Development ..... 3
SOC 307 Research Methods ..... 3
With permission of Instructor and Director
RELS $205 \quad$ Urban America and Catholic Social Teaching ..... 3
With permission of Instructor and Director
RELS 204 Religion and Social Justice ..... 3
With permission of Instructor and Director
A minimum grade of $C$ is required for all courses counting toward the minor.
** Only one English course permitted
*** Only one Religious Studies course permitted

## Ethics

The interdisciplinary Ethics Minor helps students learn how to address ethical dilemmas that they may face at work and in their daily lives. In addition, students interested in exploring challenges that confront our nation and the world - global warming, resource management, inequality, discrimination - will also find the minor rewarding. Although geared toward real world ethical challenges, the minor will also provide the conceptual background necessary to respond to ethical dilemmas. The minor is open to all undergraduates at Manhattan College.

Students choosing the minor will be assigned a faculty adviser who will assist them in planning a course of studies suited to their interests.

The minor will require fifteen hours of coursework, two core courses and three electives. The minor is intended to be interdisciplinary. A maximum of nine credit hours may be taken in one discipline.

## Core Requirements: 6 credits

| PHIL 201 | Ethics | 3 |
| :--- | :--- | :--- |
| PHIL 215 | Ancient Greek Philosophy | 3 |
| Total Credits |  | 6 |

## Electives: 9 credits

Courses that fulfill the elective requirement must cover a substantial amount of material on ethics, moral theory, or social justice.

The following are courses currently approved to fulfill the elective requirement. Courses will be added to the list, including new interdisciplinary ones, for example, Technology and Ethics, Cyberethics, and Biomedical Ethics. NOTE: Courses other than those listed below may be counted as electives at the discretion of the student's adviser and with the permission of department chairs and faculty in different disciplines.

| PHIL 205 | Environmental Ethics | 3 |
| :--- | :--- | :--- |
| PHIL 230 | Philosophy of Law | 3 |
| PHIL 238 | Philosophies of War and Peace | 3 |
| PHIL 325 | Marx and Marxism | 3 |
| PHIL 334 | Existentialism | 3 |
| PHIL 342 | Chinese and Japanese Philosophies | 3 |
| PHIL 350 | Philosophers on Race, Class, and Gender | 3 |
| RELS 362 | Ethics in the Workplace | 3 |
| RELS 381 | Religious Dimensions of Peace | 3 |
| COMM 406 | Mass Communication Law | 3 |

## Film Studies

Dr. Margaret Toth<br>Program Coordinator

The Film Studies minor is an interdisciplinary course of study that focuses on the history, analysis, and production of the medium of film. The minor is grounded in the principle that cinema itself has always been an interdisciplinary art form, borrowing from the traditions of theater, music, written narrative, photography, and--more recently--televisual and digital technologies. Students in the minor are encouraged to study the history and application of these related arts while also learning about the distinctive elements of cinematic aesthetics. At the same time, film is a form of cultural expression that holds the power to shape our understanding of the societies we live in, engaging such diverse subjects as history, politics, religion, and social identities. Several courses, therefore, ask students to make connections between the films we watch and the world we occupy.
The Film Studies Minor brings together, in a valuable and systematic way, multiple existing courses across at least six departments. The curriculum is organized so that students will gain a broad understanding of the evolution of film as an artistic medium while also having the opportunity to study various genres, modes of production, social issues, and philosophical approaches in depth. Students will also be able to take advantage of the multiple and unique opportunities to access film screenings and archives that our location in New York City provides.

## Minor

## Requirements for a Film Studies Minor

15 credits to include:

| ENGL 255 | Introduction to Film Studies | 3 |
| :---: | :---: | :---: |
| One of the following: |  | 3 |
| $\begin{aligned} & \text { ENGL } 256 \\ & \text { or ENGL } 385 \end{aligned}$ | Types of Film Experience Film Narrative |  |
| Three additional courses chosen from the following: |  | 9 |
| ART 212 | Art of Digital Photography |  |
| ART 380 | Digital Video Art: Editing and Production |  |
| COMM 308 | Studio Television Production |  |
| COMM 316 | Scriptwriting |  |
| MUSC 390 | Digital Audio Recording and Editing |  |
| COMM 340 | Media Criticism |  |
| ENGL 349 | Adaptation Studies |  |
| ENGL 388 | Feminism \& Film |  |
| FREN 303 | French Culture Through Film |  |
| ITAL 303 | Italian Through Film |  |
| PHIL 228 | Philosophy \& Film |  |
| RELS 218 | The Bible \& Film |  |

$\begin{array}{ll}\text { RELS } 376 & \text { Religion and the Media } \\ \text { SPAN } 303 & \text { Spanish Culture Through Film }\end{array}$

## *Requires permission of the department chair.

With approval of the program coordinator, Special Topics courses focused on film may also count toward the elective requirements. A minimum grade of C is required for all courses. With the exception of English, only two courses from a single department count towards requirements for the minor.

## Game Design \& Production

Videogames have become a multi-billion-dollar industry, surpassing all other forms of entertainment. From consoles to PCs, mobile devices and immersive media, gaming has launched several new career paths, and companies are actively seeking graduates with skills in these areas. Digital games have provided new forms of socialization, political organization, and economic power, and they are at the forefront of the organization of a virtual society.

Game Design and Production explores gaming history and cultures while teaching critical skills to work in this growing industry. This interdisciplinary program offers a major with three concentrations: Coding, Design, and Narrative, and a minor.

## MAJOR

Game Design and Production is a 120-credit program for the B.A. degree and a 125 -credit program for the B.S. degree.
Majors in this program must complete 30 credits and follow one of three concentrations as outlined below. Students who follow the Coding concentration are matriculated in the Kakos School of Science and will earn a B.S. degree upon graduation; students following the Design or Narrative concentration are matriculated in the School of Liberal Arts and will earn a B.A. degree upon graduation.

Upon completion of a major in Game Design \& Production, students are expected to:

1. complete the planning, design, and building of digital games
2. describe the history, structure, and issues of the videogame industry
3. work collaboratively to apply their knowledge and skills
4. analyze the ethical issues they may encounter while creating an interactive game.

All majors will complete:
ART 134 The Culture of Games 3
CMPT 101 Computer Science I 3
COMM 365 Game Design \& Development 3
ART 407 Senior Game Seminar 3
In addition, students will complete one of the following three 18-credit concentrations:

## CODING (B.S. Kakos School of Science)

| CMPT 102 | Computer Science II | 3 |
| :--- | :--- | :--- |
| CMPT 238 | Data Structures and Algorithms - I | 3 |
| CMPT 335 | Discrete Structures | 3 |
| CMPT 360 | Object Oriented Design with Java | 3 |
| CMPT 420 | Artificial Intelligence | 3 |

## DESIGN (B.A. School of Liberal Arts)

| ART 213 | Digital Drawing | 3 |
| :--- | :--- | :--- |
| ART 307 | 3D Design, Modeling and Visualization | 3 |
| ART 309 | Animation | 3 |

and 9 credits of elective courses as described below.

## NARRATIVE (B.A. School of Liberal Arts)

COMM 304
Digital Storytelling 3
COMM 359
Interactive Narratives3

DASH $310 \quad$ VR: Perception \& Production
and 9 credits of elective courses as described below.

## Elective Courses

Elective courses that satisfy major and minor requirements are approved by the program director and are related to gaming, digital production, coding, and the culture, marketing, and effects of videogames. Majors may apply 3 credits from an internship in the gaming industry.

## Suggested elective courses

Courses required in other GAME concentrations, including:

| ART 213 | Digital Drawing | 3 |
| :--- | :--- | :--- |
| ART 307 | 3D Design, Modeling and Visualization | 3 |
| ART 309 | Animation | 3 |
| CMPT 102 | Computer Science II | 3 |
| CMPT 238 | Data Structures and Algorithms - I | 3 |
| COMM 304 | Digital Storytelling | 3 |
| COMM 359 | Interactive Narratives | 3 |
| DASH 310 | VR: Perception \& Production | 3 |
| Other suggested elective courses: |  |  |
| ART 214 | Introduction to Graphic Design | 3 |
| ART 380 | Digital Video Art: Editing and Production | 3 |
| COMM 222 | Introduction to Story and Post-Production | 3 |
| COMM 306 | Web Design | 3 |
| COMM 316 | Scriptwriting | 3 |
| DASH 200 | Introduction to Digital Arts \& Humanities | 3 |
| MUSC 390 | Digital Audio Recording and Editing | 3 |

In addition, students may enroll in specific special topics courses and other elective courses as approved by the Program Director.

## MINOR

Students wishing to earn a minor in Game Design \& Production must complete 15 credits, which include:

| ART 134 | The Culture of Games | 3 |
| :--- | :--- | :--- |
| COMM 365 | Game Design \& Development | 3 |
| and 9 credits of elective courses as approved by the program director. |  |  |

## Suggested elective courses

Courses required in GAME concentrations, including:

| ART 213 | Digital Drawing | 3 |
| :--- | :--- | :--- |
| ART 307 | 3D Design, Modeling and Visualization | 3 |
| ART 309 | Animation | 3 |
| CMPT 101 | Computer Science I | 3 |
| CMPT 102 | Computer Science II | 3 |
| CMPT 238 | Data Structures and Algorithms - I | 3 |
| COMM 304 | Digital Storytelling | 3 |
| COMM 359 | Interactive Narratives | 3 |
| DASH 310 | VR: Perception \& Production | 3 |
| Other suggested elective courses: |  |  |
| ART 214 | Introduction to Graphic Design | 3 |
| ART 380 | Digital Video Art: Editing and Production | 3 |
| COMM 222 | Introduction to Story and Post-Production | 3 |
| COMM 306 | Web Design | 3 |
| COMM 316 | Scriptwriting | 3 |
| DASH 200 | Introduction to Digital Arts \& Humanities | 3 |
| MUSC 390 | Digital Audio Recording and Editing | 3 |

In addition, students may enroll in specific special topics courses and other elective courses as approved by the Program Director.

A minimum grade of $C$ is required for courses to satisfy all major and minor requirements. Minors must have a contract signed and approved by the program director.

## History

Dr. Adam Arenson
Chair of the Department
A history major can be an ideal choice for a variety of careers. In addition to preparing students to be professional historians or researchers, it lays the foundation for professions such as law or teaching and for careers in business, public service, the military, the media, library science, and archival work.

## Major

Requirements for a Major in History. Students in the School of Liberal Arts who major in history must complete a minimum of 33 credits in history courses. These credits must include:

| HIST 100 | Experiencing History | 3 |
| :---: | :---: | :---: |
| HIST 300 | Historical Methods | 3 |
| HIST 490 | Senior Seminar | 3 |
| One of the following (or another 200-level course approved by chair): |  |  |
| HIST 217 | World History to 1600 | 3 |
| or HIST 203 | History of the Medieval World |  |
| or HIST 220 | Race \& Gender in Medieval Europe |  |
| or HIST 225 | Modern Latin America |  |
| or HIST 231 | Introduction to African American History |  |
| or HIST 240 | East Asian Civilizations |  |
| or HIST 242 | Introduction to African History |  |
| Course designated as pre-modern |  |  |
| European Histo | 00-level or above | 6 |
| US History at 300 | l or above | 6 |
| World History at | evel or above | 6 |
| Elective History | 300-level or above | 3 |
| Total Credits |  | 33 |
| *can also fulfill another History requirement |  |  |
| A minimum grade of $C$ is necessary to receive credit in the major. Students are encouraged to pursue opportunities for study abroad. In addition, internships in a wide variety of related fields are available for history majors. |  |  |

## Social Studies Concentration

Students in the Division of Education who concentrate in Social Studies and specialize in Adolescent Education must complete 24 credits in history courses. These credits must include:

| HIST 206 | United States Through 1876 | 3 |
| :--- | :--- | :--- |
| HIST 207 | United States Since 1876 | 3 |

HIST $217 \quad$ World History to 1600 ..... 3
HIST 218 World History Since 1600 ..... 3
HIST 300 Historical Methods ..... 3
HIST 490 Senior Seminar ..... 3
World History at the 300-level or above ..... 3
Elective History at the 300-level or above ..... 3Students in the Division of Education who concentrate in Social Studies and specializein Childhood Education must complete 24 credits in History courses. These credits mustinclude:
HIST $206 \quad$ United States Through 1876 ..... 3
HIST 207 United States Since 1876 ..... 3
HIST 217 World History to 1600 ..... 3
HIST 218 World History Since 1600 ..... 3
World History at the 300-level or above ..... 3
World History at the 200- or 300-level or above ..... 3A minimum grade of $C$ is necessary to receive credit in the major.
Double-Major with Adolescent Education
Students in the Division of Education who concentrate in Social Studies and specialize inAdolescent Education may earn a double-major in the History Department in the Schoolof Liberal Arts. They must complete a minimum of 30 credits in history courses. Thesecredits must include:
HIST $206 \quad$ United States Through 1876 ..... 3
HIST 207 United States Since 1876 ..... 3
HIST 217 World History to 1600 ..... 3
HIST 218 World History Since 1600 ..... 3
HIST 300 Historical Methods ..... 3
HIST 490 Senior Seminar ..... 3
World History at 300-level or above ..... 3
Additional 300-level electives History 100 may be counted as the second Additional 300-level ..... 9elective.Total Credits30A minimum grade of $C$ is necessary to receive credit in the major.
Minor
Requirements for a Minor in History15 credits of history courses, with most at the 300-level or above. The program is workedout individually with the department chair, but typically includes at least three 300-level
courses, one in each region: Europe, U.S., World. A minimum grade of $C$ is required to receive credit in the minor.

All history majors and minors are invited to participate in the social, co-curricular, and vocational activities of the department. The department houses a chapter of Phi Alpha Theta, the international history honor society. Outstanding history majors are elected to its membership. In addition, the department has two lecture series honoring the memory of past department chairs. An annual lecture in honor of Brother Casimir Gabriel Costello, F.S.C., features European history, and a biennial series focuses on topics in early American history in honor of Professor Robert Christen.

# International Studies 

Dr. Paul Droubie<br>Director of the Program

International Studies is an interdisciplinary program founded on the premise that world events can only be understood by employing a variety of disciplinary perspectives -including political, economic, historical, and cultural approaches -- and that they must be understood in both a regional and a global context. This interdisciplinary and international perspective will prepare students for graduate school or law school, or for careers in business, education, government, non-governmental organizations, or international organizations. Students who have specific graduate work or careers in mind may want to take a second major or a minor to further their program.

## Major

## Requirements for a Major in International Studies

All majors shall:

- Complete 15 credits in the core curriculum
- Complete 15 credits in the chosen area of concentration
- Acquire a satisfactory reading and speaking ability in at least one foreign language.

Areas of concentration are: Europe; Asia; Latin America and the Caribbean; Africa and the Middle East; and Global Affairs. This last category focuses on transregional issues such as the environment, technology, ethnicity, and international organizations. See below for the lists of courses in each area of concentration.

The Department of Modern Languages and Literatures offers courses in Arabic, Chinese, French, German, Italian, Japanese, and Spanish. Russian is available through a cooperative program with Lehman College. International Studies majors should take at least one 300 -level course in a foreign language or pass a proficiency exam administered by the Department of Modern Languages and Literatures. International Studies majors who start one of the less commonly taught languages (Arabic, Chinese, Japanese, Russian) at Manhattan College are required to take at least 4 semesters of the language. A minimum grade of $C$ or better is required in all language courses.
All International Studies majors are strongly encouraged to spend one or two semesters of their junior year abroad. A minimum grade of $C$ is required in all courses used to fulfill the requirements for a major or minor in International Studies and for all courses taken abroad.

International Studies majors are advised to take ECON 150 Roots: Economics as one of their Social Science Core requirements.

## Minor

## Requirements for a Minor in International Studies

Minors shall complete 15 credits, including: INTL 201 Global Issues; POSC 351 International Relations, POSC 352 International Organizations, or POSC 357 United

States Foreign Policy; and HIST 326 Diplomatic History of Europe 1815-1914, HIST 328 Cold War Diplomacy in Asia, HIST 334 Diplomatic History of the Vietnam Wars, HIST 362 US Foreign Relations, 1900 to the Present, or HIST 394 Diplomatic History of the Ottoman Empire. Students should also choose two electives from any one of the areas of concentration. ECON 334 International Economics can be substituted for one of the concentration electives. Students are encouraged to advance their linguistic competency.

## Core Curriculum

| INTL 201 | Global Issues | 3 |
| :--- | :--- | :--- |
| INTL 405 | Senior Seminar | 3 |
| ECON 334 | International Economics | 3 |
| HIST 326 | Diplomatic History of Europe 1815-1914 | 3 |
| or HIST 328 | Cold War Diplomacy in Asia |  |
| or HIST 334 | Diplomatic History of the Vietnam Wars |  |
| or HIST 362 | US Foreign Relations, 1900 to the Present |  |
| or HIST 394 | Diplomatic History of the Ottoman Empire |  |
| POSC 351 | International Relations |  |
| or POSC 352 <br> or POSC 357 | International Organizations | 3 |

## Area of Concentration

Majors take 15 credits in their area of concentration, with no more than three courses, or 9 credits, in a single discipline, and no more than two courses, or 6 credits, in a foreign language. Special topics courses and Model United Nations courses may be included in concentrations, when relevant, and at the discretion of the Director. Courses for the concentration are chosen in consultation with the Director of the Program, including those listed below:

## Europe:

| ART 260 | Monasticism and the Arts | 3 |
| :--- | :--- | :--- |
| ART 304 | Art \& Architecture of Renaissance Italy | 3 |
| ART 322 | Renaissance Art | 3 |
| ART 323 | 19th Century Art: 1750-1890 | 3 |
| ART 329 | History of Modern Art | 3 |
| ENGL 280 | Irish Literary Revival | 3 |
| ENGL 312 | Studies in Medieval British Literature | 3 |
| ENGL 346 | Twentieth Century Irish Literature | 3 |
| FREN 303 | French Culture Through Film | 3 |
| FREN 316 | Aspects of French and Francophone Culture | 3 |
| FREN 340 | French Civilization | 3 |
| FREN 341 | Contemporary French Civilization | 3 |
| FREN 350 | Mastersworks in French Literature I | 3 |
| FREN 445 | Baudelaire and Modern Poetry | 3 |

HIST 304 Europe in the Middle Ages ..... 3
HIST 305 Early Modern Europe ..... 3
HIST 307 Genocide and Racism ..... 3
HIST 308 Premodern Women and Gender History ..... 3
HIST 326 Diplomatic History of Europe 1815-1914 ..... 3
HIST 334 Diplomatic History of the Vietnam Wars ..... 3
HIST 337 England to 1688 ..... 3
HIST 351 Age Of The French Revolution ..... 3
HIST 352 Nineteenth-Century Europe ..... 3
HIST 353 Modern Germany ..... 3
HIST 354 History of the Soviet Union ..... 3
HIST 355 East Europe in Modern Times ..... 3
HIST 357 Nazi Germany and the Holocaust ..... 3
HIST 358 The Industrial Revolution ..... 3
HIST 388 Women in Modern Europe ..... 3
HIST 390 Terror and Terrorism ..... 3
HIST 391 Decolonization: The End of Empires ..... 3
HIST 393 Global Feminisms ..... 3
ITAL 303 Italian Through Film ..... 3
INTL 315 Special Topics: Area Studies ..... 3
INTL 450 Tutorial ..... 1-3
INTL 475 Internship ..... 3
ITAL 316 Aspects of Italian Culture ..... 3
ITAL 323 Special Topics in Italian ..... 3
ITAL 340 Medieval and Renaissance Italian Civilization ..... 3
ITAL 341 Contemporary Italian Civilization ..... 3
ITAL 350 Masterworks in Italian ..... 3
MUSC 290 Early Music History: Antiquity to 1800 ..... 3
MUSC 305 Music in France: Paris ..... 3
PHIL 215 Ancient Greek Philosophy ..... 3
PHIL 316 Modern Philosophy ..... 3
POSC 330 Government and Politics of Western Europe ..... 3
POSC 331 Government and Politics of Russia and Selected Soviet ..... 3
Successor States
POSC 332 Government and Politics of Central and Eastern Europe ..... 3
POSC 348 Government and Politics of the European Union ..... 3
POSC 374 Western Political Thought ..... 3
PSYC 348 Cultural Psychology ..... 3
RELS 231 Eastern Christianity ..... 3
RELS 245 Medieval Christian Thought ..... 3
RELS 302 Religion and Spanish Culture ..... 3
RELS 310 Religion \& The Holocaust ..... 3
SOC 202 Introduction to Cultural Anthropology ..... 3
SOC 225 Telling Stories with Maps ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 334 Sustainable Development ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
SPAN 300 Hispanic Musical Heritage ..... 3
SPAN 303 Spanish Culture Through Film ..... 3
SPAN 316 Aspects of Hispanic Culture ..... 3
SPAN 340 Spanish Civilization ..... 3
SPAN 350 Masterworks in Spanish I ..... 3
SPAN 351 Masterworks in Spanish ..... 3
SPAN 423 Great Hispanic Poets ..... 3
SPAN 424 The Modern Novel in Spain and Spanish America ..... 3
SPAN 427 Cervantes ..... 3
URBN 302 Sustainable Cities ..... 3
Or any 400-level Modern Languages and Literatures course.
Latin America and Caribbean:
ECON 412 Economic Growth and Development ..... 3
ENGL 265 Global Literature in English ..... 3
ENGL 357 Postcolonial Caribbean Literatures: Defining a Region ..... 3
FREN 342 Francophone Literature and Culture ..... 3
HIST 225 Modern Latin America ..... 3
HIST 362 US Foreign Relations, 1900 to the Present ..... 3
HIST 318 Mexico, Central America and the Caribbean ..... 3
INTL 313 Argentina:History,Society\&Cult ..... 3
HIST 393 Global Feminisms ..... 3
INTL 315 Special Topics: Area Studies ..... 3
INTL 450 Tutorial ..... 1-3
INTL 475 Internship ..... 3
POSC 344 Government and Politics of the Caribbean ..... 3
POSC 345 Government and Politics of Latin America ..... 3
PSYC 348 Cultural Psychology ..... 3
RELS 238 Theologies Of Liberation ..... 3
RELS 359 Afro-Caribbean Religions ..... 3
SOC 202 Introduction to Cultural Anthropology ..... 3
SOC 225 Telling Stories with Maps ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 262 Contemporary Latin American Development ..... 3
SOC 328 Societies and Cultures of Latin America ..... 3
SOC 334 Sustainable Development ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
SPAN 300 Hispanic Musical Heritage ..... 3
SPAN 303 Spanish Culture Through Film ..... 3
SPAN 316 Aspects of Hispanic Culture ..... 3
SPAN 320 Special Topics: in Hispanic Culture Studies ..... 3
SPAN 341 Spanish American Civilization ..... 3
SPAN 342 Caribbean Culture ..... 3
SPAN 424 The Modern Novel in Spain and Spanish America ..... 3
SPAN 435 Spanish-American Short Fiction ..... 3
URBN 302 Sustainable Cities ..... 3
Or any 400-level Spanish class on Latin America.
Africa and Middle East:
ARAB 301 Advanced Arabic I ..... 3
ARAB 302 Advanced Arabic II ..... 3
ECON 412 Economic Growth and Development ..... 3
ENGL 265 Global Literature in English ..... 3
FREN 341 Contemporary French Civilization ..... 3
FREN 342 Francophone Literature and Culture ..... 3
FREN 442 Contemporary Francophone Literature and Culture ..... 3
HIST 242 Introduction to African History ..... 3
HIST 306 History of the Modern Middle East ..... 3
HIST 307 Genocide and Racism ..... 3
HIST 314 Modern Africa ..... 3
HIST 389 Gender and Sexuality in the Modern Middle East ..... 3
HIST 391 Decolonization: The End of Empires ..... 3
HIST 392 History of the Israeli-Palestinian Conflict ..... 3
HIST 393 Global Feminisms ..... 3
HIST 394 Diplomatic History of the Ottoman Empire ..... 3
INTL 315 Special Topics: Area Studies ..... 3
INTL 450 Tutorial ..... 1-3
INTL 475 Internship ..... 3
PHIL 332 Africana Philosophy ..... 3
POSC 343 Government and Politics of the Middle East ..... 3
POSC 346 Government and Politics of Africa ..... 3
PSYC 348 Cultural Psychology ..... 3
RELS 231 Eastern Christianity ..... 3
RELS 238 Theologies Of Liberation ..... 3
RELS 342 Islam and Politics ..... 3
RELS 353 ..... 3
RELS 355 Islam ..... 3
SOC 202 Introduction to Cultural Anthropology ..... 3
SOC 225 Telling Stories with Maps ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 334 Sustainable Development ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
URBN 302 Sustainable Cities ..... 3
Asia:
ART 316 History of Asian Art ..... 3
CHIN 301 Advanced Mandarin Chinese I ..... 3
CHIN 302 Advanced Mandarin Chinese II ..... 3
CHIN 321 Mandarin Chinese Across the Curriculum ..... 1
ECON 412 Economic Growth and Development ..... 3
ENGL 265 Global Literature in English ..... 3
ENGL 348 Postcolonial Literature ..... 3
HIST 240 East Asian Civilizations ..... 3
HIST 307 Genocide and Racism ..... 3
HIST 312 Modern China 1839 - Now ..... 3
HIST 313 Vietnam to the Philippines ..... 3
HIST 328 Cold War Diplomacy in Asia ..... 3
HIST 334 Diplomatic History of the Vietnam Wars ..... 3
HIST 348 Modern Japan ..... 3
HIST 391 Decolonization: The End of Empires ..... 3
HIST 393 Global Feminisms ..... 3
INTL 315 Special Topics: Area Studies ..... 3
INTL 450 Tutorial ..... 1-3
INTL 475 Internship ..... 3
JAPN 301 Advanced Japanese I ..... 3
JAPN 302 Advanced Japanese II ..... 3
PHIL 342 Chinese and Japanese Philosophies ..... 3
POSC 340 Government and Politics of Asia ..... 3
PSYC 348 Cultural Psychology ..... 3
RELS 238 Theologies Of Liberation ..... 3
RELS 314 Hinduism ..... 3
RELS 342 Islam and Politics ..... 3
RELS 354 Buddhism: Its Development and Interpretation ..... 3
RELS 357 Religions of China \& East Asia ..... 3
RELS 358 Religions of India ..... 3
RELS 361 Yoga: Philosophy, Praxis, and Art ..... 3
SOC 202 Introduction to Cultural Anthropology ..... 3
SOC 225 Telling Stories with Maps ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 334 Sustainable Development ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
URBN 302 Sustainable Cities ..... 3
Global Affairs:
ART 218 Introduction to World Art ..... 3
COMM 271 Transnational Communication \& Media ..... 3
COMM 371 Intercultural Communication ..... 3
ECON 412 Economic Growth and Development ..... 3
ENGL 347 Literature and War ..... 3
ENGL 348 Postcolonial Literature ..... 3
HIST 307 Genocide and Racism ..... 3
HIST 334 Diplomatic History of the Vietnam Wars ..... 3
HIST 362 US Foreign Relations, 1900 to the Present ..... 3
HIST 377 Science, Technology, and Society ..... 3
HIST 391 Decolonization: The End of Empires ..... 3
HIST 393 Global Feminisms ..... 3
INTL 310 Technology and Society ..... 3
INTL 312 Ethnicity in the Modern World ..... 3
INTL 315 Special Topics: Area Studies ..... 3
INTL 450 Tutorial ..... 1-3
INTL 475 Internship ..... 3
MKTG 412 International Marketing ..... 3
MUSC 216 Introduction to World Music ..... 3
PEAC 201 Introduction to Peace and Justice Studies ..... 3
PHIL 238 Philosophies of War and Peace ..... 3
POSC 205 Political Geography ..... 3
POSC 207 Introduction to Peace Studies ..... 3
POSC 209 Comparative Politics ..... 3
POSC 223 Environmental Politics ..... 3
POSC 254 Global Cities ..... 3
POSC 351 International Relations ..... 3
POSC 352 International Organizations ..... 3
POSC 354 Human Rights ..... 3
POSC 367 Model United Nations ..... 3
POSC 368 Model United Nations II ..... 3
POSC 455 Seminar: Diplomacy ..... 3
PSYC 348 Cultural Psychology ..... 3
RELS 204 Religion and Social Justice ..... 3
RELS 238 Theologies Of Liberation ..... 3
RELS 255 Introduction to Peace and Justice Studies ..... 3
RELS 364 Comparative Religion ..... 3
RELS 372 Religion and Science ..... 3
RELS 333 Non-Violent Revolution ..... 3
SOC 202 Introduction to Cultural Anthropology ..... 3
SOC 212 Migration, Globalization, and Culture ..... 3
SOC 220 Social Problems ..... 3
SOC 225 Telling Stories with Maps ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 295 Capitalism ..... 3
SOC 317 Anthropology of Drugs ..... 3
SOC 327 Power and Conflict ..... 3
SOC 334 Sustainable Development ..... 3
SOC 335 Culture, Health, and IIIness ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
URBN 302 Sustainable Cities ..... 3
International Studies Courses(Open to Majors and Non-Majors)
INTL 310 Technology and Society ..... 3
INTL 312 Ethnicity in the Modern World ..... 3
INTL 313 Argentina:History,Society\&Cult ..... 3
INTL 315 Special Topics: Area Studies ..... 3
INTL 450 Tutorial ..... 3
INTL 475 Internship ..... 3

## Labor Studies

Jordan Pascoe<br>Director of the Program

Labor Studies is an interdisciplinary study of the nature and meaning of human work, the rights of workers, and the place of worker's associations in international and intersectional contexts. The major and minor in Labor Studies draw on courses in the humanities, social sciences, business, and education. Although Labor Studies is available as a stand-alone major, students are encouraged to pursue a second major or minor in a traditional field of study.

The Labor Studies Program teaches students critical intellectual skills that will enable them to analyze social policy questions and help prepare them for careers in union organization and leadership, in government service, and in dispute resolution. It also prepares students to pursue graduate and professional studies in fields such as labor management, law, and human resources. Labor Studies is rooted in the Lasallian mission of "excellence in teaching, respect for individual dignity, and commitment to social justice," in intersectional frameworks for theorizing social justice, and in Manhattan College's long tradition of teaching students from working class families.

## Requirements for Major

| LABR 201 | Labor Studies Colloquium | 3 |
| :---: | :---: | :---: |
| LABR 301 | Field Work | 3 |
| LABR 401 | Senior Seminar | 3 |
| Labor Studies Electives* |  | 21 |
| Economics |  |  |
| ECON 334 | International Economics |  |
| Political Science |  |  |
| POSC 319 | Government and Business: Political Economy | 3 |
| POSC 212 | Wall Street | 3 |
| History |  |  |
| POSC 420 | Senior Seminar: Conflict Resolution | 3 |
| HIST 230 | History of the American Economy |  |
| HIST 366 | US Labor Patterns and Movement |  |
| HIST 377 | Science, Technology, and Society |  |
| Management |  |  |
| MGMT 320 | Talent Management \& Acquisition |  |
| MGMT 450 | Negotiation \& Conflict Mgmt |  |
| Philosophy |  |  |
| PHIL 325 | Marx and Marxism |  |
| PHIL 350 | Philosophers on Race, Class, and Gender |  |
| Psychology |  |  |
| PSYC 321 | Social Psychology |  |
| PSYC 373 | Industrial Psychology |  |


| Radiological and Health Services |  |  |
| :--- | :--- | :--- |
| Religious Studies |  |  |
| RELS 254 | Catholic Social Teaching | 3 |
| RELS 238 | Theologies Of Liberation | 3 |
| RELS 362 | Ethics in the Workplace |  |
| RELS 204 | Religion and Social Justice |  |
| Sociology |  |  |
| SOC 295 | Capitalism |  |
| SOC 304 | Social Inequalities |  |
| SOC 327 | Power and Conflict |  |
| SOC 366 | White Collar Crime |  |

Total Credits
*Electives must be selected from at least 4 distinct disciplines.

## Requirements for Minor

| LABR 201 | Labor Studies Colloquium | 3 |
| :---: | :--- | ---: |
| Labor Studies Electives | 12 |  |
| ECON 334 | International Economics | 3 |
| POSC 319 | Government and Business: Political Economy | 3 |
| POSC 212 | Wall Street | 3 |
| POSC 420 | Senior Seminar: Conflict Resolution |  |
| HIST 230 | History of the American Economy |  |
| HIST 366 | US Labor Patterns and Movement |  |
| HIST 377 | Science, Technology, and Society |  |
| MGMT 320 | Talent Management \& Acquisition |  |
| MGMT 450 | Negotiation \& Conflict Mgmt |  |
| PHIL 325 | Marx and Marxism |  |
| PHIL 350 | Philosophers on Race, Class, and Gender |  |
| PSYC 321 | Social Psychology |  |
| PSYC 373 | Industrial Psychology | 3 |
| RELS 254 | Catholic Social Teaching |  |
| RELS 238 | Theologies Of Liberation | 3 |
| RELS 362 | Ethics in the Workplace |  |
| RELS 204 | Religion and Social Justice |  |
| SOC 304 | Social Inequalities |  |
| SOC 327 | Power and Conflict |  |
| SOC 366 | White Collar Crime |  |

Total Credits ..... 30

## Liberal Learning

Rocco Marinaccio
Director of the Core Curriculum
The following courses comprise the core curriculum for students in the School of Liberal Arts and in the School of Science and are open only to those students. In keeping with the active learning goals of the program, all courses combine readings, discussions, and extensive writing assignments.

LLRN 102 Classical Origins: West Culture is required of all students in the School of Liberal Arts and some students in the School of Science.

To fulfil the Humanities requirement, all students in Liberal Arts and Science take the following courses:

| ENGL 150 | Roots: Literature | 3 |
| :---: | :--- | :---: |
| or ENGL 151 | Roots: Literature-1st Year Seminar |  |
| HIST 150 | Roots: History |  |
| or HIST 152 | Roots: History - FYS | 3 |
| PHIL 150 | Roots: Philosophy |  |
| or PHIL 152 | Roots of Modern Age: Philosophy - FYS | 3 |
| ART 150 | Roots: Art |  |
| or ART 151 | Roots:Art -FYS | 3 |
| or MUSC 150 | Roots: Music |  |
| or MUSC 151 | Roots:Music-1st Year Seminar |  |

To fulfil the Social Science requirement, students in the School of Liberal Arts select 3, and students in the School of Science select 2, of the following courses:

| ECON 150 | Roots: Economics | 3 |
| :---: | :--- | :---: |
| POSC 150 | Roots: Government | 3 |
| or POSC 153 | Roots:Government - FYS |  |
| PSYC 150 | Roots: Psychology <br> or PSYC 153 | Roots: Psychology - FYS |
| SOC 150 | Roots: Sociology <br> or SOC 153 | Roots: Sociology - FYS |

# Medieval Studies 

## Dr. Jennifer Edwards <br> Program Coordinator

The minor in Medieval Studies offers a multi-disciplinary exploration of the art, architecture, history, literature, music, philosophy, and religion of Europe between the fourth and fifteenth centuries. It encourages students to engage critically with a formative era of the past that has shaped the Catholic Church and the development of the modern world. The Middle Ages saw the formation of the institutional Church and the rise of the papacy, the development of the nation and representative bodies, the origin of the university and modern legal systems, the creation of new artistic, literary, and musical forms, and even the formulation of notions such as romantic love and the individual "self." Current methods in studying the Middle Ages enable scholars and students to engage with the Lasallian mission by studying the poor, displaced, and persecuted as well as the legendary, famous, and powerful.

The Medieval Studies Minor draws faculty and courses from at least six different departments in the School of Liberal Arts and encourages students to seek connections across the disciplines. The minor complements all majors in the humanities and provides a firm historical grounding for students in the social sciences and other areas who wish to understand a period that was crucial to the development of the modern world.

## Minor

## Requirements for a Medieval Studies Minor

15 credits to include:
LLRN 107 Medieval Origins of West Culture

| 3 courses selected from: | 9 |
| :--- | :--- |
| ART 321 | Medieval Art |
| ENGL 312 | Studies in Medieval British Literature |
| HIST 304 | Europe in the Middle Ages |
| RELS 245 | Medieval Christian Thought |
| PHIL 315 | Medieval Philosophy |

And an additional course selected from the above or any of the following: 3

| ART 260 | Monasticism and the Arts |
| :--- | :--- |
| ENGL 369 | Chaucer |
| HIST 220 | Race \& Gender in Medieval Europe |
| HIST 308 | Premodern Women and Gender History |
| HIST 319 | The Crusades |
| HIST 325 | The Byzantine Empire |
| HIST 337 | England to 1688 |
| ITAL 340 | Medieval and Renaissance Italian Civilization |
| RELS 214 | Dante |
| PHIL 210 | Faith and Reason |


| PHIL 401 | Philosophy Seminar |
| :--- | :--- |
| RELS 243 |  |
| RELS 244 | The Catholic Mystics |

Special Topics courses focusing on a medieval subject may be selected as an elective with the approval of the Medieval Studies program coordinator. A minimum grade of $C$ is required for all courses in the minor.

# Modern Languages \& Literatures 

Dr. Evelyn Scaramella<br>Chair of the Department

Manhattan College's Department of Modern Languages and Literatures offers majors and minors in French and Spanish as well as minors in Arabic, Italian, Chinese and Japanese. In addition, Irish is offered through a cooperative program with Lehman College at the nearby Lehman College campus. Students enrolled in those courses will follow Lehman College's catalog and schedule. Through a consortial arrangement with the College of Mount Saint Vincent, the department also offers Filipino language (Tagalog) and culture.

Language courses are oriented towards the achievement of oral and written proficiency. The goals of the Department of Modern Languages and Literatures are to develop the ability to understand, speak, read, and write effectively in a language other than English; to provide better understanding of other cultures and other modes of expression in order to broaden international understanding; and to prepare students for graduate studies and careers in education, international business, communication, government, social services, and related fields.

The Department places all students in an appropriate language course based on their prior knowledge or study of the language.

In addition, Modern Language majors are encouraged to combine language studies with other disciplines, resulting in minors or double majors.

Requirements for a Major in Spanish and Latin American Studies: Thirty credits beyond SPAN102. No more than 6 credits at the 200 level or 6 AP credits may be applied to the major. SPAN 317 is required of all majors and is a prerequisite for all 400 -level courses. Of the remaining electives, 9 credits must be at the 400 level. A major's program should be carefully planned in consultation with a faculty advisor to assure oral and writing competence in Spanish. Study abroad is strongly encouraged.

Requirements for a Major in French and Francophone Studies: Thirty credits beyond FREN102. No more than 6 credits at the 200 level or 6 AP credits may be applied to the major. Required courses: FREN 350, or FREN 351 and one FREN 400 level. The remaining credits may be chosen from the 300 or 400 levels. A major's program of study should be carefully planned with an academic advisor to assure oral and writing competence in French. Study abroad is strongly encouraged.

Requirements for a French Concentration in Education: Thirty credits beyond FREN102. No more than 6 credits at the 200 level or 6 AP credits may be applied to the concentration. The following are required: FREN 301 Advanced French Conversation and Phonetics or FREN 307 Advanced Grammar and Composition; 6 credits from FREN 303 French Culture Through Film, FREN 340 French Civilization, FREN 341 Contemporary French Civilization, or FREN 342 Francophone Literature and Culture; and FREN 350 Mastersworks in French Literature I or FREN 351 Masterworks in French \& Francophone Literature II.The remaining electives must be at the 300 or 400 levels. In addition, the student must take 12 credits of a second modern language (other than English). Study abroad is strongly encouraged in the sophomore year.

Requirements for a Spanish and Latin American Studies Concentration in Education: Thirty credits beyond SPAN102. No more than 6 credits at the 200 level or 6 AP credits may be applied to the concentration. The following are required: SPAN 307 (https://catalog.manhattan.edu/search/?P=SPAN\ 307) Advanced Grammar ; SPAN 340 (https://catalog.manhattan.edu/search/?P=SPAN\ 340) Spanish Civilization and SPAN 341 (https://catalog.manhattan.edu/search/?P=SPAN \%20341) Spanish American Civilization; SPAN 317 Introduction to Hispanic Literature. Of the remaining electives, 6 credits must be at the 400 level. In addition, the student must take 12 credits of a second modern language (other than English). Study abroad is strongly encouraged in the sophomore year.

Requirements for a Minor in a Modern Language and Literature: The Department offers minors in Arabic, French, Italian, Chinese, Japanese, and Spanish. Minors are required to take 15 credits beyond 102 (the Arabic, Chinese and Japanese minors allow up to 3 credits from the 100 level). Of these, only 6 credits may be applied from the 200 level, and only six credits of 300- and 400-level work may be transferred from a study abroad program. The minor must constitute a coherent program of study designed with an academic advisor and aimed at achieving oral proficiency in the language.
Grade Requirements:A minimum grade of $C$ is required for course credit toward a major or a minor in Modern Languages and Literature.

Study Abroad Programs: Majors are strongly encouraged to study abroad either for a semester or a summer term at an approved program abroad. Students may choose from a variety of options, including Manhattan College-sponsored programs as well as programs sponsored by partner institutions in France, Italy, Spain, or in various other countries. To be eligible for study abroad, students must have an overall grade point average of 2.75 and an average of 3.0 in their language major or minor.

## Music, Theater and Sound Studies

## Music and Theater (MUSC and THEA)

## Dr. Mark A. Pottinger, Ph.D. Musicology <br> Chair of the Department

The Department of Music and Theater offers a Major in Sound Studies and Minors in both Music and in Theater.

The Sound Studies Major presents a critical approach to the act of listening that is informed by a study of the socio-economic forces that shape our world. Combined with a larger liberal arts curriculum, sound studies redefines traditional music study (i.e., historical musicology, music theory and composition, music performance studies) by integrating it with the science of sound (i.e., music technology, music recording and editing, and the science of acoustics). The core areas of the major include music theory and analysis; music history and culture, including the history of audio technology; performance studies via a particular instrument such as piano, voice, or guitar; digital audio recording; and sound design. The investigation of how sound and by extension music influences who we are and what we desire to be is the main curricular focus of this program, which thus aligns sound studies with the college's mission of social justice and community engagement.

Over the course of a 30-credit program of study, students will develop a critical awareness of the history of music and music recording technology and their impact on society; create, capture, and edit sound data in order to cultivate and apply new approaches to music performance, research, and education; and support collaborations between music, science, and technology.

## Major in Sound Studies Requirements

Majors in Sound Studies must take a minimum of 30 credits in music and audio taken from the following five areas:

## Music Theory: 6 credits

MUSC 220 Fundamentals of Music Theory ..... 3
MUSC 320 Advanced Music Theory ..... 3
Total Credits ..... 6*Students entering with AP Music Theory credit (4 or 5 test score) can satisfy the courserequirement of MUSC 220.
Music History, Culture and Analysis: 9 credits
MUSC 290 Early Music History: Antiquity to 1800 ..... 3
MUSC 300 History of Rock and Roll ..... 3
MUSC 310 History of the Broadway Musical ..... 3
MUSC 323 Music \& Romanticism ..... 3
MUSC 325 Modern Music \& The Avant-Garde ..... 3

| MUSC 330 | History of Jazz | 3 |
| :--- | :--- | :--- |
| MUSC 380 | History of Sound Recording \& Audio Technology | 3 |
| Performance (Piano, Guitar, or Other): $\mathbf{3}$ credits* |  |  |
| MUSC 208 | Piano Skills and Techniques |  |
| or MUSC 209 | Guitar Skills and Techniques | 3 |

*Three semesters of MUSC131, MUSC 132 or MUSC133 (Ensemble Performance with instrumental lessons) OR MUSC 129/130 (Vocal Instruction) may be used to satisfy the 3 -credit performance requirement. Although only 3 credits are required in performance, Sound Studies Majors are encouraged to continue their study of voice, piano or guitar in more advanced areas, including MUSC 258 or MUSC 259 and MUSC 308 or MUSC 309, or MUSC 410 (Independent Study).

## Digital Audio and Sound Studies: 9 credits

| MUSC 390 | Digital Audio Recording and Editing | 3 |
| :--- | :--- | :--- |
| MUSC 393 | Audio Mixing \& Music Prod | 3 |
| MUSC 395 | Acoustics \& Sound Control | 3 |
| MUSC 375 | Internship At a Music Recording Studio can satisfy 3 credits | 3 |
| Senior Project/Capstone: $\mathbf{3}$ credits* |  |  |
| MUSC 405 | Senior Seminar: Contemporary Sound Design (Prerequisites: | 3 |

A minimum final grade of C is required for courses to satisfy all Major requirements. Majors must have a contract signed and approved by the Department Chair no later than their junior year.

## Minors in Music and Theater

The minor in Music and the minor in Theater are both designed to supplement majors in numerous disciplines. In addition to examining broad historical and cultural contexts, courses provide opportunities for individual creativity and performance as well as an introduction to the theory and technology shaping contemporary theater and music today. To fulfill certain areas of the minor, students may elect to participate in one of the many award-winning ensembles on campus, including the MC Orchestra, MC Jazz Band, MC Singers, MC Pep Band, MC Pipes and Drums Corps, and the MC Players (see Clubs and Organizations (https://manhattan.edu/life-at-manhattan/clubs-organizations/? category=All\&letter=All\&pageSize=10\&pagelndex=1)).

A minor in Music or in Theater is an ideal choice for a variety of careers. In addition to preparing students for advanced training in music and theatrical performance, the minors offer career opportunities for actors, historians, sociologists, theater managers, dramaturges, psychologists, teachers, playwrights, copyright lawyers, non-for-profit business managers, journalists, librarians, sound engineers, stage designers, and advertising executives. Minors in the Department of Music and Theater may take advantage of several internship programs in New York City that give students an introduction to the professional working environment in both the music and theater industries.

## Minor in Music Requirements

| MUSC 150 | Roots: Music |  |
| :--- | :--- | ---: |
| or MUSC 216 | Introduction to World Music |  |
| MUSC 208 | Piano Skills and Techniques |  |
| or MUSC 209 | Guitar Skills and Techniques | 3 |
| MUSC 220 | Fundamentals of Music Theory | 3 |
| Electives (300 Level or above) | 3 |  |
| Total Credits |  | 6 |

*Three semesters of MUSC 131 (MC Singers), MUSC 132 (MC Orchestra), or MUSC 133 (MC Jazz Band), may serve as a substitute.

## Minor in Theater Requirements

| THEA 190 | Acting Skills and Techniques | 3 |
| :--- | :--- | :--- |
| THEA 260 | Introduction to Theater | 3 |
| MUSC 310 | History of the Broadway Musical |  |
| or ENGL 400 | The Theater and the City | 3 |
| Electives (at least 3 credits at 300 level or above) | 6 |  |

Total Credits
Beyond the full list of three-credit THEA courses listed in the course catalog, ENGL 205 (Reading \& Writing the Theater), ENGL 276 (Introduction to Drama), ENGL 329
(Shakespeare: Comedies, Histories, and Hamlet), ENGL 330 (Shakespeare II), ENGL 361 (Masterpieces of British Drama), ENGL 381 (Masterpieces of American Drama), and three semesters of THEA 134 (MC Players) may serve as a Theater elective.

A minimum final grade of $C$ is required for courses to satisfy all minor requirements. Minors must have a contract signed and approved by the Department Chair.

## Peace and Justice Studies

Dr. Kevin Ahern<br>Director of the Program

Peace and Justice Studies is the academic program that embraces Manhattan College's Lasallian commitment to advancing social justice. One of the oldest programs of its kind in the United States, the Peace and Justice Studies program is interdisciplinary in nature, drawing on the strength of faculty in areas such as Communications, Economics, English, Environmental Science, History, Management, Modern Languages, Philosophy, Political Science, Psychology, Sociology, and Religious Studies. The program's fundamental goal is to understand and evaluate structural injustice, the aspects of human nature that lead to violence and war, and the work of social movements that seek to realize peace, nonviolence, and social justice.

Manhattan College offers Peace and Justice Studies as a major or minor field of study leading to the B.A. degree. It is encouraged that students interested in a major in Peace and Justice Studies pair it with a major in another academic discipline.

Peace and Justice Studies is housed in the School of Liberal Arts, but is also available as a major or minor for students in the Schools of Science and Engineering, and is possible as a minor for students in the School of Business.

## Goals of the Peace and Justice Studies Major

A Major in Peace and Justice Studies will be able to:

- Identify current issues of conflict and injustice.
- Fulfilled by Conflicts and Injustices and Internship course requirement
- Describe normative models about peace, nonviolence, and social justice.
- Fulfilled by Introduction to Peace and Justice Studies course requirement and Concepts in Peace and Justice Studies course requirement (2 courses in 2 different departments)
- Explain how both the psychological make-up of humans and social structures promote conflict and injustice and/or promote positive peace and social justice.
- Fulfilled by Concepts in Peace and Justice Studies course requirement (2 courses in 2 different departments)
- Synthesize knowledge across academic disciplines concerning the psychological and structural dimensions that promote conflict and injustice with the goal of creating blueprints to achieve negative and positive peace
- Fulfilled by Methods course requirement and by Capstone course requirement
- Apply specific skills that will enable them to understand and critique problems of conflict and injustice, as well as contemplate solutions to these problems. These skills may include a knowledge of quantitative and qualitative data analysis, so that one can both identify and separate accurate evidence from misinformation or poorly gathered data, and also generate accurate evidence, or conflict resolution skills that can be employed in their own lives.
- Fulfilled by Methods course requirement, by Capstone course requirement and by Peacebuilding Skills requirement


## Requirements for Majors

Majors must take 30 credits, including the following:

| A. Introductory Course |  | 3 |
| :---: | :---: | :---: |
| PEAC 201 | Introduction to Peace and Justice Studies |  |
| RELS 255 | Introduction to Peace and Justice Studies |  |
| POSC 207 | Introduction to Peace Studies |  |
| B. One of the following Methods courses |  | 3 |
| HIST 300 | Historical Methods |  |
| POSC 210 | Research Methods in Political Science |  |
| PSYC 314 | Statistics and Research Methods II ${ }^{+}$ |  |
| SOC 307 | Research Methods |  |
| C. One of the following Capstone courses |  | 3 |
| HIST 490 | Senior Seminar |  |
| PEAC 401 | Senior Seminar in Peace and Justice Studies |  |
| POSC 405 | Special Topics: Senior Seminar: United States Government and Politics |  |
| POSC 412 | Senior Seminar: Women in Politics |  |
| POSC 420 | Senior Seminar: Conflict Resolution |  |
| POSC 426 | Senior Seminar: The Politics of Race, Ethnicity, and Class in the United States |  |
| POSC 440 | Seminar: European Politics |  |
| POSC 450 | Senior Seminar: Politics of International Economics |  |
| POSC 452 | Special Topics Senior Seminar: Comparative Politics |  |
| POSC 455 | Seminar: Diplomacy |  |
| POSC 473 | Senior Seminar: Contemporary Western Political Thought |  |
| POSC 480 | Special Topics Senior Seminar: Political Theory |  |
| PSYC 414 | Senior Capstone: Advanced Research Methods |  |
| SOC 416 | Seminar in Sociology |  |
| Another capstone course approved by the Program Director of Peace and Justice Studies |  |  |
| D. Two of the following Concepts in Peace and Justice Studies courses: |  | 6 |
| COMM 371 | Intercultural Communication |  |
| CRES 150 | Introduction to Critical Race \& Ethnicity Studies |  |
| ENGL 347 | Literature and War |  |
| ENGL 348 | Postcolonial Literature |  |
| PHIL 230 | Philosophy of Law |  |
| PHIL 238 | Philosophies of War and Peace |  |
| PHIL 275 | Political Philosophy |  |
| PHIL 325 | Marx and Marxism |  |
| PHIL 350 | Philosophers on Race, Class, and Gender |  |
| POSC 324 | Constitutional Law: Civil Liberties |  |


| POSC 354 | Human Rights |  |
| :---: | :---: | :---: |
| POSC 351 | International Relations |  |
| POSC 352 | International Organizations |  |
| PSYC 321 | Social Psychology |  |
| PSYC 330 | Special Topic: in Psychology (Peace Psychology) |  |
| PSYC 348 | Cultural Psychology |  |
| RELS 204 | Religion and Social Justice |  |
| RELS 238 | Theologies Of Liberation |  |
| RELS 254 | Catholic Social Teaching |  |
| RELS 381 | Religious Dimensions of Peace |  |
| RELS 333 | Non-Violent Revolution |  |
| SOC 302 | Race and Resistance |  |
| SOC 304 | Social Inequalities |  |
| SOC 319 | Activism, Advocacy, and Empowerment |  |
| SOC 327 | Power and Conflict |  |
| E. One of the following Conflicts and Injustices courses: |  | 3 |
| HIST 231 | Introduction to African American History |  |
| HIST 306 | History of the Modern Middle East |  |
| HIST 307 | Genocide and Racism |  |
| HIST 314 | Modern Africa |  |
| HIST 328 | Cold War Diplomacy in Asia |  |
| HIST 334 | Diplomatic History of the Vietnam Wars |  |
| HIST 357 | Nazi Germany and the Holocaust |  |
| HIST 362 | US Foreign Relations, 1900 to the Present |  |
| HIST 366 | US Labor Patterns and Movement |  |
| HIST 383 | Civil War and Reconstruction |  |
| HIST 390 | Terror and Terrorism |  |
| HIST 391 | Decolonization: The End of Empires |  |
| HIST 392 | History of the Israeli-Palestinian Conflict |  |
| LABR 201 | Labor Studies Colloquium |  |
| POSC 251 | Global Issues |  |
| POSC 331 | Government and Politics of Russia and Selected Soviet Successor States |  |
| POSC 332 | Government and Politics of Central and Eastern Europe |  |
| POSC 340 | Government and Politics of Asia |  |
| POSC 343 | Government and Politics of the Middle East |  |
| POSC 344 | Government and Politics of the Caribbean |  |
| POSC 345 | Government and Politics of Latin America |  |
| POSC 346 | Government and Politics of Africa |  |
| POSC 348 | Government and Politics of the European Union |  |
| POSC 357 | United States Foreign Policy |  |


| RELS 342 | Islam and Politics |  |
| :---: | :---: | :---: |
| RELS 399 | Criminal Justice Ethics |  |
| SOC 212 | Migration, Globalization, and Culture |  |
| SOC 220 | Social Problems |  |
| SOC 262 | Contemporary Latin American Development |  |
| SOC 273 | Mass Incarceration and Collateral Consequences |  |
| SOC 328 | Societies and Cultures of Latin America |  |
| SOC 332 | Labor Studies Colloquium |  |
| SOC 369 | Current Issues in Criminal Justice |  |
| F. One of the following Peacebuilding Skills courses |  | 3 |
| COMM 217 | Introduction to Public Relations |  |
| MGMT 201 | Introduction to Management |  |
| MGMT 450 | Negotiation \& Conflict Mgmt |  |
| PHIL 208 | Ethics Bowl Debate I |  |
| PHIL 308 | Ethics Bowl Debate II |  |
| POSC 318 | Community Organizing for Social Change |  |
| SOC 318 | Community Organizing for Social Change |  |
| A Language course in addition to the two language courses required by the Liberal Arts core. |  |  |
| Another course approved by the Program Director of Peace and Justice Studies |  |  |
| G. One field work, internship or community engaged learning |  | 3 |
| PEAC 451 | Peace and Justice Field Project |  |
| PEAC 453 | Community Engaged Learning |  |
| PEAC 475 | Internship |  |
| RELS 205 | Urban America and Catholic Social Teaching |  |
| H. Two Electives |  | 6 |
| See list below. |  |  |
| Total Credits |  | 30 |

+ PSYC 214: Statistics and Research Methods is a prerequisite for this course. Majors can use one of their electives to take this course prior to enrolling in PSYC 314.
* Courses should be selected from different departments.
** Requires prerequisites

Students may choose to write a senior thesis, for which they should register for PEAC 421 Independent Study or PEAC 422 Independent Studies: Peace and Justice.

A minimum grade of $C$ is required for credit toward the major.

## Requirements for Minor

Minors must take 15 credits, including the following:
A. Introductory Course ..... 3
PEAC 201 Introduction to Peace and Justice Studies
POSC 207 Introduction to Peace Studies RELS 255 Introduction to Peace and Justice Studies
B. 12 additional credits chosen from the list of courses above in consultation ..... 12
with the Program Director. No more than 6 of these 12 credits can come from the same department
Total Credits ..... 15A minimum grade of $C$ is required for credit toward the minor.
Elective Courses for Peace and Justice Studies Majors and Minors
BIOL 223 Ecology ..... 4
COMM 217 Introduction to Public Relations ..... 3
COMM 340 Media Criticism ..... 3
COMM 371 Intercultural Communication ..... 3
CRES 150 Introduction to Critical Race \& Ethnicity Studies ..... 3
ECON 334 International Economics ..... 3
ECON 412 Economic Growth and Development ..... 3
ENGL 265 Global Literature in English ..... 3
ENGL 279 Literature and the Environment ..... 3
ENGL 345 Environmental Literature and Ecocriticism ..... 3
ENGL 347 Literature and War ..... 3
ENGL 348 Postcolonial Literature ..... 3
ENGL 380 Growing Up Ethnic: The Ethnic-American Bildungsroman ..... 3
HIST 231 Introduction to African American History ..... 3
HIST 306 History of the Modern Middle East ..... 3
HIST 307 Genocide and Racism ..... 3
HIST 312 Modern China 1839 - Now ..... 3
HIST 313 Vietnam to the Philippines ..... 3
HIST 314 Modern Africa ..... 3
HIST 319 The Crusades ..... 3
HIST 326 Diplomatic History of Europe 1815-1914 ..... 3
HIST 328 Cold War Diplomacy in Asia ..... 3
HIST 334 Diplomatic History of the Vietnam Wars ..... 3
HIST 347 The Sixties ..... 3
HIST 351 Age Of The French Revolution ..... 3
HIST 357 Nazi Germany and the Holocaust ..... 3
HIST 358 The Industrial Revolution ..... 3
HIST 362 US Foreign Relations, 1900 to the Present ..... 3
HIST 366 US Labor Patterns and Movement ..... 3
HIST 383 Civil War and Reconstruction ..... 3
HIST 389 Gender and Sexuality in the Modern Middle East ..... 3
HIST 368 Formation of U.S.Public Health ..... 3
HIST 390 Terror and Terrorism ..... 3
HIST 391 Decolonization: The End of Empires ..... 3
HIST 392 History of the Israeli-Palestinian Conflict ..... 3
HIST 393 Global Feminisms ..... 3
MGMT 201 Introduction to Management ..... 3
MGMT 309 Management of International Business ..... 3
MGMT 450 Negotiation \& Conflict Mgmt ..... 3
PEAC 302 Special Topic ..... 3
PEAC 421 Independent Study ..... 3
PEAC 451 Peace and Justice Field Project ..... 3
PEAC 452 Peace and Justice Field Project ..... 3
PEAC 453 Community Engaged Learning ..... 3
PEAC 475 Internship ..... 3
PHIL 201 Ethics ..... 3
PHIL 208 Ethics Bowl Debate I ..... 3
PHIL 230 Philosophy of Law ..... 3
PHIL 238 Philosophies of War and Peace ..... 3
PHIL 275 Political Philosophy ..... 3
PHIL 308 Ethics Bowl Debate II ..... 3
PHIL 325 Marx and Marxism ..... 3
PHIL 350 Philosophers on Race, Class, and Gender ..... 3
POSC 209 Comparative Politics ..... 3
POSC 222 Power in the City ..... 3
POSC 223 Environmental Politics ..... 3
POSC 251 Global Issues ..... 3
POSC 254 Global Cities ..... 3
POSC 318 Community Organizing for Social Change ..... 3
POSC 324 Constitutional Law: Civil Liberties ..... 3
POSC 331 Government and Politics of Russia and Selected Soviet ..... 3Successor States
Government and Politics of Central and Eastern Europe ..... 3
POSC 332
Government and Politics of Asia ..... 3
POSC 340
3
POSC 343 Government and Politics of the Middle East
3
POSC 344 Government and Politics of the Caribbean
3
POSC 345 Government and Politics of Latin America
3
POSC 346 Government and Politics of Africa
3
POSC 348 Government and Politics of the European Union3International Relations
POSC 352 International Organizations ..... 3
POSC 354 Human Rights ..... 3
POSC $357 \quad$ United States Foreign Policy ..... 3
POSC 367 Model United Nations ..... 3
POSC 368 Model United Nations II ..... 3
POSC 491 SUNY Washington Internship Program ..... 15
POSC 493 SUNY Summer Washington Internship Program ..... 6
POSC 494 American University Seminar Program ..... 15
PSYC 321 Social Psychology ..... 3
PSYC 330 Special Topic: in Psychology (Peace Psychology) ..... 3
PSYC 348 Cultural Psychology ..... 3
RELS 204 Religion and Social Justice ..... 3
RELS 205 Urban America and Catholic Social Teaching ..... 3
RELS 238 Theologies Of Liberation ..... 3
RELS 254 Catholic Social Teaching ..... 3
RELS 310 Religion \& The Holocaust ..... 3
RELS 320 Race, Religion \& Resistance ..... 3
RELS 333 Non-Violent Revolution ..... 3
RELS 342 Islam and Politics ..... 3
RELS 362 Ethics in the Workplace ..... 3
RELS 377 Religion and Environmentalism ..... 3
RELS 381 Religious Dimensions of Peace ..... 3
RELS 399 Criminal Justice Ethics ..... 3
SOC 212 Migration, Globalization, and Culture ..... 3
SOC 220 Social Problems ..... 3
SOC 225 Telling Stories with Maps ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 262 Contemporary Latin American Development ..... 3
SOC 273 Mass Incarceration and Collateral Consequences ..... 3
SOC 275 Issues in Contemporary Policing ..... 3
SOC 290 Codes of Gender ..... 3
SOC 294 Gender, Crime \& Justice ..... 3
SOC 295 Capitalism ..... 3
SOC 296 Introduction to Human Geography ..... 3
SOC 302 Race and Resistance ..... 3
SOC 304 Social Inequalities ..... 3
SOC 317 Anthropology of Drugs ..... 3
SOC 318 Community Organizing for Social Change ..... 3
SOC 319 Activism, Advocacy, and Empowerment ..... 3
SOC 324 Sociological Theories ..... 3
SOC 327 Power and Conflict ..... 3
SOC 328 Societies and Cultures of Latin America ..... 3
SOC 332 Labor Studies Colloquium ..... 3
SOC 333 US Labor Patterns and Movements ..... 3
SOC 334 Sustainable Development ..... 3
SOC 364 Law and Society ..... 3
SOC 361 Criminal Justice Administration ..... 3

## Philosophy

Dr. Sarah Scott<br>Chair of the Department

The philosophy major and minor challenge you to ask big, important questions, engage with some of the most significant minds in history, think critically, and write and express yourself clearly. Our department takes a pluralistic approach, which sharpens your ability to understand and analyze concepts, question injustices and logical errors, and think critically about what matters to you. It promotes sustained reflection, clarity in language and argument, and awareness of justice and injustice: critical skills for success in a multicultural world.

Majors gain a solid foundation in philosophic method and history through four core courses: Ancient Greek Philosophy, Modern Philosophy, Ethics or Ethics Bowl Debate, and Logic or Critical Thinking. From there students customize their studies, choosing one upper level historical course, one upper level global or contemporary philosophy course, and three electives. All majors complete their studies with an advanced philosophy seminar.

Philosophy minors take two foundational courses: Ancient Greek Philosophy and either Ethics, Ethics Bowl Debate, Critical Thinking or Logic, and then choose three electives. Should majors or minors wish to develop a focus, our faculty can support a range of concentrations and research, including pre-law, ethics, philosophy of literature, art and film, political philosophy, feminist philosophy, critical race philosophy, Africana philosophy, philosophic issues in technology, and the history of philosophy.

## Major

A minimum of thirty credits in philosophy courses distributed as follows:

| Four required core courses: | 12 |
| :---: | :--- |
| PHIL 201 | Ethics |
| or PHIL 208 | Ethics Bowl Debate I |


| PHIL 332 | Africana Philosophy |  |
| :---: | :---: | :---: |
| PHIL 341 | Global \& Feminist Epistemologies |  |
| PHIL 342 | Chinese and Japanese Philosophies |  |
| PHIL 350 | Philosophers on Race, Class, and Gender |  |
| PHIL 352 | Philosophers on Sex, Love, and Friendship |  |
| PHIL 399 | Topics: in Philosophy |  |
| One seminar: |  | 3 |
| PHIL 401 | Philosophy Seminar |  |
| Electives at the 200-level or above chosen in consultation with the major advisor |  | 9 |
| Total Credits |  | 30 |
| Minor: Philosophy |  |  |
| A minimum of fifteen credits in philosophy courses distributed as follows: |  |  |
| PHIL 215 | Ancient Greek Philosophy | 3 |
| Select from PH to Logic, or PH | Ethics, PHIL 208 Ethics Bowl Debate I, PHIL 213 Introduction Critical Thinking | 3 |
| Electives selec consultation w | m PHIL 150 or any course at the 200-level or above chosen in minor advisor | 9 |
| Total Credits |  | 15 |

## Political Science

Dr. Margaret Groarke<br>Chair of the Department

The Political Science major seeks to maximize students' ability to analyze and interpret the significance of political events, institutions, behavior, and governmental processes at the local, national, and international levels. The major is designed to equip students to play more effective roles as citizens of a democratic nation and of the world and to prepare them for careers in public service, politics, diplomacy, law, business, journalism, and college teaching.

## Major

## Requirements for a Major

Either POSC 150 Roots: Government, POSC 153 Roots:Government - FYS or POSC 201 Introduction to Government and Politics is a prerequisite for the Political Science major. In addition, majors must take a total of ten courses ( 30 credits) distributed as follows:

Gateway courses - all required. These courses should be completed during the first two years after declaring the major.

1. POSC 203 United States Government and Politics
2. POSC 209 Comparative Politics
3. POSC 210 Research Methods in Political Science
4. POSC 251 Global Issues
5. POSC 270 Introduction to Political Theory or POSC 271 American Political Thought or POSC 372 African American Political Thought

## Upper Division courses:

6. Any 300 level class
7. Any 300 level class
8. Any 300 level class
9. Senior Seminar 400-level (to be taken in senior year)

## Free Elective

10. Any class any level (200-400 level) or internship

A minimum grade of C in departmental courses is necessary to fulfill the requirements for the major. Majors intending to apply to law school are expected to take at least one term of POSC 323 Constitutional Law: Governmental Powers or POSC 324 Constitutional Law: Civil Liberties.

## Minor

## Requirements for a Minor

The minor is available to students in all schools. POSC 150 Roots: Government, POSC 153 Roots:Government - FYS or POSC 201 Introduction to Government and Politics is required for the Political Science minor. Students are required to take 12 additional credits, including POSC 203 United States Government and Politics and a choice of one other gateway course: either POSC 209 Comparative Politics, POSC 251 Global Issues or POSC 270 Introduction to Political Theory and two other political science courses, and receive a grade of $C$ or better in each.
Minors are advised to start with POSC 150 Roots: Government, POSC 153 Roots:Government - FYS or POSC 201 Introduction to Government and Politics and take POSC 203 United States Government and Politics and the other gateway course before selecting other courses.

POSC 150 Roots: Government 3
POSC 153 Roots:Government - FYS 3
POSC 201 Introduction to Government and Politics 3
POSC 205 Political Geography 3
POSC 207 Introduction to Peace Studies 3
POSC 210 Research Methods in Political Science 3
United States Government
POSC $203 \quad 3$
POSC 221 Urban Govt \& Politics 3
POSC $222 \quad$ Power in the City 3
POSC 303 The United States Congress 3
POSC 306 The United States Presidency 3
POSC 315 State and Local Government in the United States 3
POSC 318 Community Organizing for Social Change 3
POSC $319 \quad$ Government and Business: Political Economy 3
POSC 320 United States Parties, Public Opinion and Elections 3
POSC 322 Public Administration 3
POSC 323 Constitutional Law: Governmental Powers 3
POSC 324 Constitutional Law: Civil Liberties 3
POSC 325 Special Topics: United States Government 3
POSC 405 Special Topics: Senior Seminar: United States Government 3 and Politics
POSC $412 \quad$ Senior Seminar: Women in Politics 3
POSC 426 Senior Seminar: The Politics of Race, Ethnicity, and Class in 3 the United States

## Comparative Politics

| POSC 209 | Comparative Politics | 3 |
| :---: | :---: | :---: |
| POSC 310 | Special Topics: in Comparative Politics | 3 |
| POSC 330 | Government and Politics of Western Europe | 3 |
| POSC 331 | Government and Politics of Russia and Selected Soviet Successor States | 3 |
| POSC 332 | Government and Politics of Central and Eastern Europe | 3 |
| POSC 340 | Government and Politics of Asia | 3 |
| POSC 343 | Government and Politics of the Middle East | 3 |
| POSC 344 | Government and Politics of the Caribbean | 3 |
| POSC 345 | Government and Politics of Latin America | 3 |
| POSC 346 | Government and Politics of Africa | 3 |
| POSC 348 | Government and Politics of the European Union | 3 |
| POSC 440 | Seminar: European Politics | 3 |
| POSC 452 | Special Topics Senior Seminar: Comparative Politics | 3 |
| Global Politics |  |  |
| POSC 223 | Environmental Politics | 3 |
| POSC 251 | Global Issues | 3 |
| POSC 254 | Global Cities | 3 |
| POSC 350 | Special Topics: Global Politics | 3 |
| POSC 351 | International Relations | 3 |
| POSC 352 | International Organizations | 3 |
| POSC 353 | Technology and Society | 3 |
| POSC 357 | United States Foreign Policy | 3 |
| POSC 420 | Senior Seminar: Conflict Resolution | 3 |
| POSC 450 | Senior Seminar: Politics of International Economics | 3 |
| POSC 455 | Seminar: Diplomacy | 3 |

## Political Theory

POSC 270 Introduction to Political Theory 3
POSC 271 American Political Thought 3
POSC 370 Special Topics: Political Theory 3
POSC 374 Western Political Thought 3
POSC 473 Senior Seminar: Contemporary Western Political Thought 3
POSC $480 \quad$ Special Topics Senior Seminar: Political Theory 3

## Special Programs

POSC 212 Wall Street 3
POSC 367 Model United Nations 3
POSC 368 Model United Nations II 3
POSC 375 Internship ..... 3
POSC 475 Internship ..... 3
POSC 490 Albany Session Internship ..... 6-12
POSC 491 SUNY Washington Internship Program ..... 15
POSC 492 Washington D.C. Seminar Internship ..... 3
POSC 493 SUNY Summer Washington Internship Program ..... 6
POSC 494 American University Seminar Program ..... 15

## Psychology

Dr. Kimberly Fairchild<br>Chair of the Department

The field of psychology involves a multidisciplinary commitment to the scientific understanding and improvement of human and animal functioning, and seeks to investigate behavioral, cognitive, and emotional processes associated with adaptive and maladaptive experience.

Manhattan College's Department of Psychology cultivates future leaders and changemakers who are capable of using psychological concepts, principles, and sophisticated research strategies to positively impact human functioning. Through small class sizes and one-on-one advising and mentoring, our expert faculty inspire and nurture students to foster the critical thinking, deep social conscience, and analytical skills they need to pursue a wide array of exciting career and graduate school opportunities.

The Psychology Department offers a program that emphasizes both the humanistic and scientific aspects of psychology. The psychology major is designed for students:

1. Who desire to study and understand the human experience,
2. Who want to enter psychology as a profession, or
3. Who regard psychology as a liberal arts preparation for further training in the professions. In order to meet the diverse needs of students, the Psychology Department offers both a B.A. and a B.S. degree and an optional concentration in Industrial-Organizational Psychology. There is also a specific track for Education students concentrating in Psychology. These degrees and options are discussed in greater detail below.

The Psychology Department maintains five important goals, adapted from the guidelines of the American Psychological Association:

- Goal 1: Knowledge Base. Demonstrate fundamental knowledge and comprehension of the major concepts, theoretical perspectives, historical trends, and empirical findings to discuss how psychological principles apply to behavior and mental processes. This includes, but is not limited to, developing a working knowledge of psychology's content domains.
- Goal 2: Scientific Inquiry and Critical Thinking. Demonstrate scientific reasoning and problem solving, including effective research methods This includes, but is not limited to, using scientific reasoning to interpret psychological phenomena; interpreting, designing, and conducting basic psychological research; and demonstrating psychology information literacy..
- Goal 3: Ethical and Social Responsibility in a Diverse World. Adopt ethically and socially responsible behaviors for professional and personal settings in a landscape that involves increasing diversity. This includes, but is not limited to, applying ethical standards to evaluate and implement psychological science and practice.
- Goal 4: Communication. Demonstrate competence in writing and in oral and interpersonal communication skills through the use of discipline-specific language, critical thinking, and APA format.
- Goal 5: Professional Development. Apply psychology-specific content and skills, effective self-reflection, project-management skills, teamwork skills, and career preparation to develop a meaningful professional direction for life after graduation.


## Majors

Every student who wishes to declare a major in Psychology should consult with the Department Chair. Students must receive a minimum grade of $C$ in a psychology course for the course to be credited to their major. Students who are considering graduate school should consult with faculty members during their junior year. All students interested in graduate study are advised to take the Graduate Record Examination (GRE). As part of the department's outcomes assessment initiative, all psychology majors may be required to complete a standardized psychology achievement exam and/or senior exit survey during their senior year, as well as surveys measuring department and instructor effectiveness.

## Requirements for a Major in Psychology

All students must complete 30 credits in Psychology for a B.A., or 33 credits in Psychology for a B.S. The B.S. also requires several additional credits in science, as described below. Specific requirements for each degree are as follows:

## I. The Psychology Core

All psychology majors must complete the following four courses in this sequence, although they do not need to be completed in back-to-back semesters:

| PSYC 150 | Roots: Psychology | 3 |
| :--- | :--- | :--- |
| or PSYC 153 | Roots: Psychology - FYS |  |
| PSYC 214 | Statistics and Research Methods I | 3 |
| PSYC 314 | Statistics and Research Methods II | 3 |
| PSYC 414 | Senior Capstone: Advanced Research Methods (senior year <br> ONLY) | 3 |

Note: For psychology majors, PSYC 150, 153, or 203 is a prerequisites to all 300- and 400-level courses.

## II. The Psychology Distribution

All Psychology majors must take one course from each of the following six areas:
Clinical Psychology/Personality Psychology
PSYC $421 \quad$ Psychopathology
PSYC 347 Theories of Personality
Social Psychology/Applied Psychology 3
PSYC 321 Social Psychology
PSYC 373 Industrial Psychology
PSYC 374 Organizational Psychology
Cognitive Neuroscience: Group A ..... 3

| PSYC 332 | Artificial Psychology |  |
| :---: | :--- | :---: |
| PSYC 333 | Motivation and Emotion |  |
| PSYC 340 | Cognition and Learning | 3 |
| Cognitive Neuroscience: Group B |  |  |
| PSYC 435 | Physiological Psychology | 3 |
| PSYC 467 | Sensation and Perception |  |
| Developmental | Psychology |  |
| PSYC 334 | Lifespan Development |  |
| PSYC 345 | Psychology of Childhood |  |
| PSYC 346 | Psychology of Adolescence |  |

One Elective in Psychology ..... 3Students will choose one elective from all PSYC courses offered

## Additional requirements for a 33-credit B.S. in Psychology

In addition to the requirement above, students seeking a B.S. in Psychology must complete the following requirements:

Permission of the Chairperson of Psychology to enter the B.S. program or a math SAT score of at least 600.

Take one additional course in either Cognitive Neuroscience group A or B, for a total of 9 credits in the cognitive neurosciences. The third course may be chosen from either of the two cognitive neuroscience groups.

The following science requirements:

| BIOL 111 | General Biology I | 4 |
| :--- | :--- | :--- |
| \& BIOL 113 | and General Biology I Laboratory |  |
| BIOL 112 | General Biology II | 4 |
| \& BIOL 114 | and General Biology II Laboratory |  |
| BIOL 207 | Anatomy and Physiology I | 4 |
| BIOL 208 | Anatomy and Physiology II | 4 |
| One of the following: |  | 8 |
| CHEM 101 | General Chemistry I |  |
| \& CHEM 102 | and General Chemistry II |  |
| PHYS 107 | Introduction to Physics I |  |
| \& PHYS 108 | and Introduction to Physics II |  |

B.S. students are also encouraged, but not required, to take Genetics (BIOL 217 Genetics) and Neurobiology (BIOL 405 Neurobiology).

## Requirements for Education students concentrating in Psychology

All Psychology/Education majors must complete the following courses:
The following eight courses are required ( 24 credits):
PSYC 203
Introduction to Psychology
PSYC 214 Statistics and Research Methods I ..... 3
PSYC 314 Statistics and Research Methods II ..... 3
PSYC $310 \quad$ Psychology of Developmental Disorders and Delays ..... 3
PSYC 321 Social Psychology ..... 3
PSYC 333 Motivation and Emotion ..... 3
PSYC 340 Cognition and Learning ..... 3
PSYC 421 Psychopathology ..... 3
Psychology/Education students must also successfully complete two of the following elective courses (6 credits):
PSYC 302 Psychological Testing ..... 3
PSYC 343 Psychology of Women ..... 3
PSYC 347 Theories of Personality ..... 3
PSYC 348 Cultural Psychology ..... 3
PSYC 316 Issues Affecting Todays Youth ..... 3
Optional Concentration in Industrial/Organizational Psychology (for Psychology Majors only)In addition to the requirements for psychology majors described above, students whowish to specialize in industrial/organizational psychology may do so by completing therequirements listed below. This is fully optional.

| PSYC 373 | Industrial Psychology | 3 |
| :---: | :--- | :--- |
| PSYC 374 | Organizational Psychology | 3 |
| PSYC 302 | Psychological Testing | 3 |
| One of the following: |  | 3 |
| PSYC 333 | Motivation and Emotion |  |
| PSYC 341 | Health Psychology | 3 |
| One of the following: |  |  |
| PSYC 429 | Research in Psychology |  |
| PSYC 430 | Research in Psychology |  |
| PSYC 375 | Internship |  |
| PSYC 475 | Internship |  |

## Requirements for a Minor in Psychology

15 approved credits, including PSYC 203 Introduction to Psychology, PSYC 153 Roots: Psychology First Year Seminar, or PSYC 150 Roots: Psychology, and any 12 additional PSYC credits. Students wishing to minor in Psychology must consult with the Chair of the Department and complete a minor declaration form.

# Religious Studies 

Dr. Natalia Imperatori-Lee
Chair of the Department

## Departmental Mission

Religion is everywhere. It is a vital force in human experience and bears critical historical, cultural and political importance. Rooted in Manhattan College's Lasallian identity, the Religious Studies Department prepares students to live in the twenty-first century by providing a person-centered education that examines the dynamic ways that religion and religious traditions shape culture, values, relationships and social structures.. As part of this mission, the department embraces the college's New York City location, and offers students the opportunity to take advantage of all that a global city has to offer. The department explores the power and persistence of religion in a global context by providing courses on specific religious traditions as well as on issues that span cultures and contexts; by producing quality scholarship in both religious studies and theology; and by actively engaging in the life of the college, the broader academic community, and the world at large.

## Introduction

Instruction in the Department of Religious Studies promotes the mission of Manhattan College by providing a contemporary, person-centered educational experience characterized by high academic standards, reflection on faith, values, and ethics, and lifelong career preparation. These goals are accomplished through our nine-credit requirement for all students that includes:

1. One course that introduces the study of religion as an academic discipline and global phenomenon: RELS 110.
2. One course that explores the riches of the Catholic intellectual tradition: any course chosen from RELS 200-299 (Elective Group A)
3. One course that raises awareness of global and/or contemporary issues: any course chosen from RELS 300-399 (Elective Group B)

Our goals for majors and minors include an ability to critically read and analyze religious texts, a facility with the methods of the academic study of religion, a familiarity with specific religious traditions, and an understanding of the role that religion plays in contemporary life. The introductory course focuses on a particular theme while introducing students to some of the research tools used in the academic study of religion. A Catholic Studies concentration is offered and/or an interdisciplinary minor. Students can elect to take cross-listed courses in other departments. In addition, students may write a 6-credit honors thesis for departmental honors recognition.

## Requirements for a Major in Religious Studies

Students majoring in Religious Studies ordinarily complete: 1) RELS 110 (http:// catalog.manhattan.edu/undergraduate/arts/religiousstudies/) - The Nature and Experience of Religion; 2) 15 credits in courses numbered 200 and above (with at least one from Elective Group A and at least one from Elective Group B); 3) 12 credits at the
$400-l e v e l$. These courses are selected in consultation with the Department Chair. The elective courses will ordinarily include at least 1 course from each of the following areas of study:

1. Biblical studies
2. Christian theology
3. Ethics
4. World religious traditions

A minimum grade of C is required for credit toward the major.
Please note: Students intending to major must register with the Department Chair.

## Requirements for a Minor in Religious Studies

Students minoring in Religious Studies must complete 1) RELS 110 (http:// catalog.manhattan.edu/undergraduate/arts/religiousstudies/) - The Nature and Experience of Religion; 2) 3 credits from Elective Group A; 3) 3 credits from Elective Group B; 4) 3 credits at the 400 level; and 5) 3 credits in any additional RELS course.

Please note: Students intending to minor must register with the Department Chair.

## Concentration in Catholic Studies

A student who majors or minors in Religious Studies may choose to concentrate on the Catholic tradition. This concentration focuses on Catholic beliefs, religious practices, moral teachings, and attitudes to other religious traditions, both in terms of the historical development of Catholicism and as subjects of contemporary discussion and debate. An academic and critical program, the Concentration in Catholic Studies aims at providing the interested student with an understanding of the diversity and richness of the Catholic tradition. The School of Liberal Arts also offers an interdisciplinary minor in Catholic Studies.

Those majoring in Religious Studies who wish to pursue the Concentration in Catholic Studies must complete 1) RELS 110 (http://catalog.manhattan.edu/undergraduate/arts/ religiousstudies/) - The Nature and Experience of Religion; 2) 3 credits from Elective Group B; 3) 12 credits from Elective Group A; and 4) 12 credits at the 400 -level.

Those minoring in Religious Studies who wish to pursue the Concentration in Catholic Studies must complete 1) RELS 110 (http://catalog.manhattan.edu/undergraduate/arts/ religiousstudies/) - The Nature and Experience of Religion; 2) 3 credits from Elective Group B; 3) 6 credits from Elective Group A; and 4) 3 credits at the 400 -level.

## Religious Studies Honors Thesis

Both majors and those completing a minor with a 3.5 or greater cumulative index are eligible to develop a year-long independent research project under the supervision of a major reader and a second reader. In fall semester, the student registers for RELS 481 Religious Studies Honors Thesis. In the spring, the student will present a completed and revised honors thesis RELS 482 Honors Thesis II to the readers. Upon the successful completion of this process, the Religious Studies Department will award the student with honors recognition.

## Courses Meeting the College Religious Studies Requirements

## Freshman Year

RELS 110/RELS 152/RELS 161 The Nature and Experience of Religion

## Elective Group A: Catholic Studies

This requirement is usually met in the sophomore year. In addition to the following courses, a few courses offered by other departments also meet the Catholic Studies requirement. These include ART 260 Monasticism and the Arts and MUSC 240 Catholic Mass and its Music. Students should check with their advisors for a list of additional courses.
RELS 200 Special Topic: in Religion 3

RELS 202
U.S. Latino/A Catholicism3
RELS 204 Religion and Social Justice ..... 3
RELS 205 Urban America and Catholic Social Teaching ..... 3
RELS 206 Understanding the Bible ..... 3
RELS 207 Central Themes New Testament ..... 3
RELS 209 Paul ..... 3
RELS 210 Jesus ..... 3
RELS 212 Catholic Traditions of Spain ..... 3
RELS 213 Catholic Thought ..... 3
RELS 214 Dante ..... 3
RELS 216 Saints and Catholic Imagination ..... 3
RELS 218 The Bible \& Film ..... 3
RELS 219 Self and Other ..... 3
RELS 220 Vatican II ..... 3
RELS 221 The Psalms \& Catholic Worship ..... 3
RELS 225 Contemporary Catholicism ..... 3
RELS 226 Contemporary Catholic Theologians ..... 3
RELS 227 The Gospel of John ..... 3
RELS 231 Eastern Christianity ..... 3
RELS 232
RELS 233 Contemporary Christian Ethics ..... 3
RELS 235 ..... 3
RELS 238 Theologies Of Liberation ..... 3
RELS 243
RELS 244 The Catholic Mystics ..... 3
RELS 245 Medieval Christian Thought ..... 3
RELS 254 Catholic Social Teaching ..... 3

* Prerequisite for all 400-level courses: Open only to Religious Studies majors and
minors or by permission of instructor.


## Elective Group B: Global Studies and Contemporary Issues

RELS 206 Understanding the Bible 3
RELS 218 The Bible \& Film 3
RELS 231 Eastern Christianity 3
RELS 255 Introduction to Peace and Justice Studies 3
RELS 300 Special Topic 3
RELS 302 Religion and Spanish Culture 3
RELS 306 Central Themes in the Hebrew Scriptures 3
RELS $310 \quad$ Religion \& The Holocaust 3
RELS 312 Muslims in America 3
RELS $321 \quad$ Psychology \& Religion 3
RELS 333 Non-Violent Revolution 3
RELS 336 Native American Religions 3
RELS 337 The American Religious Experience 3
RELS 341 Judaism 3
RELS 342 Islam and Politics 3
RELS 351 God And Evil 3
RELS 353
RELS 354 Buddhism: Its Development and Interpretation 3
RELS 355 Islam 3
RELS 357 Religions of China \& East Asia 3
RELS 358 Religions of India 3
RELS 359 Afro-Caribbean Religions 3
RELS 361 Yoga: Philosophy, Praxis, and Art 3
RELS 362 Ethics in the Workplace 3
RELS 363
RELS 364 Comparative Religion 3
RELS 366 Religion and Contemporary Art 3
RELS 367 The Bible In American Culture 3
RELS 372 Religion and Science 3
RELS 373 Death as a Fact of Life 3
RELS $374 \quad$ Women in Western Religion 3
RELS 375 Religion and the Body 3
RELS 376 Religion and the Media 3
RELS 377 Religion and Environmentalism 3
RELS 378
Religion in New York 3
RELS 379 Religion and Popular Culture ..... 3
RELS 381 Religious Dimensions of Peace ..... 3
RELS 390 Sexuality and the Sacred ..... 3
RELS 399 Criminal Justice Ethics ..... 3
RELS 470 Religious Studies Seminar ..... 3
RELS 475 Internship ..... 3
RELS 480 Religious Studies Tutorial ..... 3
RELS 481 Religious Studies Honors Thesis ..... 3
RELS 482 Honors Thesis II ..... 3

* Prerequisite for all 400-level courses: Open only to Religious Studies majors and minors or by permission of instructor.


## Sociology

## Dr. Roksana Badruddoja (https://manhattan.edu/campus-directory/roksana.badruddoja/) Chair of the Department

Sociology, the scientific study of human social behavior, examines the processes and patterns of social interaction; forms of social organization; and the influences of social groups, institutions, and social structure upon human behavior.

The goals of the department are to develop the sociological imagination, including a familiarity with sociological concepts, theories, methods, and research findings; to foster knowledge of and respect for diverse social systems and cultures; and to promote global awareness, community service, and social justice.

The department prepares students for careers in social service, law, business administration, government and civil service, social scientific research and data analytics, criminology and criminal justice, urban planning, anthropology, immigration services, teaching, human resource management, graduate/professional school. Internships are available for students to apply knowledge in field experiences and explore career interests.

## Major

## Requirements for a Major in Sociology

All majors must complete 33 credits, including the following:
Sociology Core (taken upon declaration of major/minor/concentration; taken incoming semester for transfer students)
SOC 220 Social Problems (Fall) 3
Structural Inequalities Distribution (one of the following courses taken Sophomore 3 year)

SOC $290 \quad$ Codes of Gender (Fall)
SOC $295 \quad$ Capitalism (Fall)
SOC 296 Introduction to Human Geography (Spring)
SOC 302 Race and Resistance (Spring)
SOC 304 Social Inequalities (Spring)
SOC 307 Research Methods (taken Junior/Senior year in the Fall)3

SOC 324

Sociological Theories (taken Junior year in the Fall) ..... 3

Advanced Research Methods Distribution (one of the following courses taken Senior 3 year) Prerequisite: SOC 307; Recommended course: PSYC 214 Statistics and Research Methods I

| SOC 225 | Telling Stories with Maps (Spring) |
| :--- | :--- |
| SOC 350 | Advanced Topics in Geographic Information Systems (GIS) <br> (Fall) |
| SOC 352 | Advanced Qualitative Methods (Spring) |
| SOC 253 | Crime Mapping (Spring) |
| SOC 354 | Introduction to Social Network Analysis (Spring) |

SOC $416 \quad$ Seminar in Sociology (taken Senior year in the Spring)Prerequisites: SOC 307, SOC 324, and Structural Inequalities Distribution
Fifteen additional credits from Sociology ..... 15
Total Credits ..... 33
A minimum grade of $C$ is required for all courses in the major.
Sociology majors with more specific interests in the field may focus their study by electing a concentration in Social Services or Geography. Students may also choose to minor in Sociology, Cultural Anthropology, or Geography.

## Concentrations

Sociology majors interested in Criminology, Social Services or Geography may choose one of the following areas of concentration after consultation with a departmental advisor.

## Criminology

Recommended for students with career interests in criminal justice, law, community activism, and human rights advocacy. Majors must complete the following:

Sociology Core
SOC 270 Criminology 3
Two Courses from Category A and Two Courses from Category B
Category A-Select 2 courses based on student interest
SOC 273 Mass Incarceration and Collateral Consequences 3
SOC 275 Issues in Contemporary Policing 3
SOC 308 Juvenile Justice 3
SOC 361 Criminal Justice Administration 3
SOC 362 Modern American Gangs 3
SOC 366 White Collar Crime 3
SOC 369 Current Issues in Criminal Justice 3
$\begin{array}{lll}\text { Category B-Select } 2 \text { courses based on student interest } \\ \text { SOC } 294 & \text { Gender, Crime \& Justice } & 3\end{array}$
SOC 302 Race and Resistance 3
SOC 310 Sociology of Deviance 3
SOC 313 Family Law
SOC 317 Anthropology of Drugs
SOC 364 Law and Society
Total Credits

## Social Services

Recommended for students interested in social-service related careers. Students must complete the following:

Sociology Core 18
SOC 210 Introduction to Social Services (Fall) 3

| SOC 312 | Social Service Practice (Spring) | 3 |
| :---: | :--- | ---: |
| Social Services Electives (select three courses) | 9 |  |
| PSYC 257 | Forensic Psychology <br> SOC 290 | Codes of Gender (in addition to the Structural Inequalities <br> course chosen for the Sociology Core-Fall) |
| SOC 302 | Race and Resistance (in addition to the Structural Inequalities <br> course chosen for the Sociology Core-Spring) |  |
| SOC 306 | The Family |  |
| SOC 310 | Sociology of Deviance |  |
| SOC 317 | Anthropology of Drugs (Spring) |  |
| SOC 319 | Activism, Advocacy, and Empowerment |  |
| SOC 335 | Culture, Health, and Illness (Spring) |  |

Total Credits
The Department strongly recommends that all students in the Social Services
Concentration complete a faculty-supervised internship for elective credit in a local social service agency: Sociology 475. Internship (3 credits). Assistance with locating a suitable placement is available with the Department Chair Dr. Roksana Badruddoja (https://manhattan.edu/campus-directory/roksana.badruddoja/) or at the Center for Career Development (https://inside.manhattan.edu/student-life/career-pathways/careerdevelopment/).

## Geography

Recommended for students seeking a greater understanding of how humans interact with built and natural environments as well as those interested in developing mapping, geographic information systems, and other spatial analytical skills. Students must complete the following:

Sociology Core 18
SOC $296 \quad$ Introduction to Human Geography (Spring) 3
Geography Electives (select four courses) 12
SOC $212 \quad$ Migration, Globalization, and Culture (Spring)
SOC 262 Contemporary Latin American Development (Fall)
SOC 295 Capitalism (in addition to the Structural Inequalities course chosen for the Sociology Core-Fall)
SOC 327 Power and Conflict
SOC 334 Sustainable Development
SOC $353 \quad$ Political Ecology
Total Credits

## Minors

## Sociology

Minors in Sociology must take 15 credits chosen in consultation with a departmental advisor. Students are required to take: Social Problems (SOC 220);

One Structural Inequalities Distribution course: Codes of Gender (SOC 290), Capitalism (SOC 295), Race and Resistance (SOC 302), or Social Inequalities (SOC 304); and any three additional Sociology courses.

SOC 150 Roots: Sociology, SOC 375 Internship, and SOC 416 Seminar in Sociology do not fulfill minor requirements.
A minimum grade of $C$ is required for all courses in the minor.

## Cultural Anthropology

Recommended for students who wish to supplement any major with the comparative and social scientific insights offered by Cultural Anthropology. Minors must take 15 credits of the following:

| SOC 202 | Introduction to Cultural Anthropology (Spring) | 3 |
| :--- | :--- | ---: |
| Cultural Anthropology | Electives (select four courses) | 12 |
| SOC 204 | Urban Anthropology (Fall) |  |
| SOC 217 | Visual Anthropology (Spring) |  |
| SOC 317 | Anthropology of Drugs (Spring) |  |
| SOC 328 | Societies and Cultures of Latin America (Spring) |  |
| SOC 335 | Culture, Health, and Illness (Spring) |  |
| SOC 466 | Research in Anthropology |  |

Total Credits
A minimum grade of $C$ is required for all courses in the minor.

## Geography

Recommended for students interested in GIS and other spatial analysis skills, cartography/mapping, data mining, and spatial data visualization. Minors must take 15 credits of the following:

| GIS Core |  | 6 |
| :---: | :---: | :---: |
| SOC 253 | Crime Mapping (Spring) |  |
| Or |  |  |
| SOC 225 | Telling Stories with Maps (Fall) |  |
| And |  |  |
| SOC 350 | Advanced Topics in Geographic Information Systems (GIS) (Fall) |  |
| Geography | (select three courses) | 9 |
| SOC 212 | Migration, Globalization, and Culture (Spring) |  |
| SOC 262 | Contemporary Latin American Development (Fall) |  |
| SOC 295 | Capitalism (Fall) |  |
| SOC 296 | Introduction to Human Geography (Spring) |  |
| SOC 327 | Power and Conflict |  |
| SOC 334 | Sustainable Development |  |

SOC 353
Political Ecology
Total Credits 15

A minimum grade of C is required for all courses in the minor.

## Urban Studies

Dr. David Shefferman<br>Director of the Program

Cities are places where human life is at its most intense - everything seems to be faster, louder, and more frenetic. They are where economies grow, where political movements emerge, and where cultural treasures are preserved. Cities are also where inequalities are most apparent. It seems safe to say that in cities you find the best and the worse that human societies have to offer. And, in the $21^{\text {st }}$ century, cities around the world will only continue to grow.

Whether you are interested in business, history, engineering, sociology, political science, environmental sustainability, art, or education, it all happens in a city. Come learn how cities work. The Urban Studies Program at Manhattan College offers the perfect major, double major, or minor for your time in New York City!

## Major

## Requirements for a Major in Urban Studies

Ten courses totaling at least 30 credits are required. These courses must come from the list approved for Urban Studies credit and they must be taken from at least 3 departments.

All majors are required to take:

1) the introductory course in urban studies, URBN 202 Introduction to Urban Studies; and

2a) either the senior Research Seminar, URBN 401 Seminar - Urban Studies,
or
2b) senior thesis, URBN 406 Urban Honors Thesis I and URBN 407 Urban Honors Thesis II
3) a supervised field experience/internship in an urban context. This requirement may be satisfied by URBN 475 (http://catalog.manhattan.edu/search/?P=URBN \%20475) Internship or URBN 205 (http://catalog.manhattan.edu/search/?P=URBN \%20205) Urban America and Catholic Social Teaching. A field-oriented independent research study, URBN 402 (http://catalog.manhattan.edu/search/?P=URBN \%20402) Independent Study, may substitute for the internship/field experience only by permission of the program director.
No more than 4 courses in any department can be counted towards the Urban Studies major.
A minimum grade of $C$ is required in all courses to fulfill the requirements for the major.

## Minor

The minor in Urban Studies is available to students in all schools of the College. 15 credits or 5 courses are required, including the introductory course in Urban Studies: URBN 202 Introduction to Urban Studies. No more than two courses from any one discipline can be
counted towards the minor. A minimum grade of $C$ is required to fulfill the requirements for the minor.

## Courses for Urban Studies Majors and Minors

Courses are approved for Urban Studies credit on an ongoing basis. List below is not comprehensive.
AHS 206 Introduction to Public Health ..... 3
ART 358 The New York Skyscraper ..... 3
ART 360 New York City Architecture, Urbanism and Design ..... 3
ART 370 Current Trends ..... 3
CIVL 201 Introduction to Civil Engineering ..... 3
CIVL 202 Transportation ..... 3
CIVL 403 Civil Engineering Economy and Law ..... 3
COMM 400 Political Communication ..... 3
ECON 332 Introduction to Environmental Economics ..... 3
ENGL 212 Latino/Latina Literature ..... 3
ENGL 285 Literary New York ..... 3
ENGL 338 Studies in Twentieth-and Twenty-first-Century American ..... 3Literature
ENGL 348 Postcolonial Literature ..... 3
ENGL 400 The Theater and the City ..... 3
ENSC 101 Intro to Environmental Science ..... 3
ENVL 406 Water and Wastewater Treatment Processes ..... 3
HIST 231 Introduction to African American History ..... 3
HIST 358 The Industrial Revolution ..... 3
HIST 387 New York City and the American Urban Experience ..... 3
HIST 390 Terror and Terrorism ..... 3
LABR 301 Field Work ..... 3
MGMT 430 Business, Government, and Society ..... 3
MUSC 300 History of Rock and Roll ..... 3
MUSC 310 History of the Broadway Musical ..... 3
MUSC 325 Modern Music \& The Avant-Garde ..... 3
MUSC 330 History of Jazz ..... 3
POSC 210 Research Methods in Political Science ..... 3
POSC 212 Wall Street ..... 3
POSC 221 Urban Govt \& Politics ..... 3
POSC 222 Power in the City ..... 3
POSC 322 Public Administration ..... 3
POSC 223 Environmental Politics ..... 3
POSC 254 Global Cities ..... 3
POSC 315 State and Local Government in the United States ..... 3
POSC 318 Community Organizing for Social Change ..... 3
PSYC 321 Social Psychology ..... 3
RELS 202 U.S. Latino/A Catholicism ..... 3
RELS 204 Religion and Social Justice ..... 3
RELS 312 Muslims in America ..... 3
RELS 363
RELS 399 Criminal Justice Ethics ..... 3
SOC 204 Urban Anthropology ..... 3
SOC 210 Introduction to Social Services ..... 3
SOC 220 Social Problems ..... 3
SOC 225 Telling Stories with Maps ..... 3
SOC 250 Introduction to GIS ..... 3
SOC 262 Contemporary Latin American Development ..... 3
SOC 270 Criminology ..... 3
SOC 273 Mass Incarceration and Collateral Consequences ..... 3
SOC 275 Issues in Contemporary Policing ..... 3
SOC 294 Gender, Crime \& Justice ..... 3
SOC 295 Capitalism ..... 3
SOC 296 Introduction to Human Geography ..... 3
SOC 303 Urban Planning ..... 3
SOC 302 Race and Resistance ..... 3
SOC 304 Social Inequalities ..... 3
SOC 307 Research Methods ..... 3
SOC 308 Juvenile Justice ..... 3
SOC 310 Sociology of Deviance ..... 3
SOC 312 Social Service Practice ..... 3
SOC 318 Community Organizing for Social Change ..... 3
SOC 324 Sociological Theories ..... 3
SOC 327 Power and Conflict ..... 3
SOC 332 Labor Studies Colloquium ..... 3
SOC 333 US Labor Patterns and Movements ..... 3
SOC 334 Sustainable Development ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
SOC 338 Schools and Society ..... 3
SOC 361 Criminal Justice Administration ..... 3
SOC 362 Modern American Gangs ..... 3
SOC 364 Law and Society ..... 3
SOC 366 White Collar Crime ..... 3
SOC 367 Criminal Justice Ethics ..... 3
SOC 380 Sport and American Society ..... 3

# Women \& Gender Studies 

Dr. Jordan Pascoe<br>Program Coordinator


#### Abstract

Women and Gender Studies is an interdisciplinary minor that encourages students to explore the complex ways in which gender and sexuality shape who we are and how we live. Students study social identities, such as gender, race, class, ability, and sexual orientation, and explore how these identities intersect with related systems of oppression, domination and discrimination through history and geographies, and across institutions and cultures. The Women and Gender Studies Minor teaches students to recognize the patriarchal, heteronormative, and racial bias in the construction of knowledge; use intersectional and decolonial approaches to understand the ways in which race, class, gender, and sexuality operate together to shape relations of power and lived experiences in diverse global contexts; and apply feminist and queer theories and approaches to academic studies, social justice advocacy, and gender and sexual equity in our everyday lives. As an interdisciplinary minor, it ensures that students understand the variety of disciplines that inform gender and sexuality studies, as well as how gender and sexuality studies transforms modes of analysis across the disciplines. Through courses, invited speakers, and faculty and student research, the minor seeks to promote women's issues and gender and sexuality awareness in order to help students create a more equitable world.


## Minor

Minors will take 5 approved courses ( 15 credits) from the following list. One of these courses must be WAGS 101 and at least two courses must be at the 300-level or higher. No more than two courses from any one department will apply to the minor.

WAGS 101 Introduction to Women and Gender Studies 3
ENGL 256 Types of Film Experience * 3
ENGL 262 Gender and Literature 3
ENGL 323 Studies in Eighteenth-Century British Literature 3
ENGL 334 Romantic Matter(s): Subjects \& Objects * 3
ENGL 337 Gender, Sexuality, and Literature 3
ENGL 374 Lust, Passion, and the Body: The American Novel to 1914
ENGL 387 Queering the Text 3
ENGL 389 Gothic Fictions 3
ENGL 388 Feminism \& Film 3
HIST 220 Race \& Gender in Medieval Europe 3
HIST $308 \quad$ Premodern Women and Gender History 3
HIST $360 \quad 3$
HIST $388 \quad$ Women in Modern Europe 3
HIST 389 Gender and Sexuality in the Modern Middle East 3
HIST 393 Global Feminisms 3
MGMT 460
Special Topics in Management

| MUSC 400 | Special Topics: in Music | 3 |
| :---: | :---: | :---: |
| PHIL 230 | Philosophy of Law | 3 |
| PHIL 332 | Africana Philosophy | 3 |
| PHIL 335 | 20th Century Philosophy | 3 |
| PHIL 341 | Global \& Feminist Epistemologies | 3 |
| PHIL 350 | Philosophers on Race, Class, and Gender | 3 |
| PHIL 352 | Philosophers on Sex, Love, and Friendship | 3 |
| POSC 310 | Special Topics: in Comparative Politics | 3 |
| POSC 412 | Senior Seminar: Women in Politics | 3 |
| PSYC 342 | Psychology of Family Relationships | 3 |
| PSYC 343 | Psychology of Women | 3 |
| RELS 238 | Theologies Of Liberation | 3 |
| RELS 300 | Special Topic | 3 |
| RELS 318 | Womanist Visions of Justice | 3 |
| RELS 323 | Womanist Ethics | 3 |
| RELS 349 | Women and Islam | 3 |
| RELS 374 | Women in Western Religion | 3 |
| RELS 375 | Religion and the Body | 3 |
| RELS 390 | Sexuality and the Sacred | 3 |
| RELS 470 | Religious Studies Seminar | 3 |
| SOC 220 | Social Problems | 3 |
| SOC 290 | Codes of Gender | 3 |
| SOC 302 | Race and Resistance | 3 |
| SOC 304 | Social Inequalities | 3 |
| SOC 306 | The Family | 3 |
| SOC 315 | Special Topics: in Sociology | 3 |
| SPAN 320 | Special Topics: in Hispanic Culture Studies | 3 |
| SPAN 420 | Spanish Seminar | 3 |
| SPAN 429 | The Spanish Golden Age | 3 |
| SPAN 440 | Women in Hispanic Literature | 3 |
| * When these "topics" courses focus on a subject relevant to women and gender studies Special topics courses are also occasionally offered in education, the humanities, business, and the social sciences and may count toward the minor with permission of the Women and Gender Studies coordinator. |  |  |

A minimum grade of $C$ is required for credit toward the minor.

# Engineering - General Information 

Anirban De, Ph.D., P.E., Interim Dean
Erica Reubel, MBA, Assistant Dean

## Historical Note

Engineering education at Manhattan College developed out of a science program in coordination with liberal arts. In 1892, civil engineering and electrical engineering were among four curricula leading to the Bachelor of Science degree. Although civil engineering has continued uninterrupted since, electrical engineering was suspended shortly after its introduction. It was re-established as a degree program in 1935. Programs in mechanical engineering, chemical engineering, environmental engineering and computer engineering were introduced in 1957, 1958, 1993, and 1998, respectively. The undergraduate program in environmental engineering was phased out in 2012. However, the master's degree programs in environmental engineering continue and undergraduate engineering students can minor in environmental engineering.

## Vision and Mission Statements

The vision of the School of Engineering gives broad direction to long-term goals, i.e.:

## The Manhattan College School of Engineering will be the school of choice for engineering education in the New York metropolitan region.

This means that the College will be the destination of choice when students apply to engineering schools. In order to realize this vision, every program in the school will develop curricula which attract and excite students while supporting the mission of the school.

The School of Engineering has developed the following mission statement with input from its stakeholders:

The mission of the Manhattan College School of Engineering is to prepare each student for a productive and rewarding career in engineering or a related profession.

This mission is congruent with the mission of the College. The curriculum supporting the school's mission instills the techniques and skills of engineering design through the study of basic and advanced engineering science. This foundation of techniques and skills is integrated with practice-oriented engineering design experience covering technical and non-technical aspects of engineering practice. Students earning a Manhattan College engineering degree are prepared to enter the world of professional practice and to continue their studies through the pursuit of post-baccalaureate education.

The strong foundation coupled with thorough preparation in an engineering discipline ensures that the student will have life-long access to rapidly developing new technologies and prepares each student to be a citizen, an advocate, and a leader in the complex world of the 21 st century.

The mission of the School of Engineering is consistent with the Lasallian and Catholic heritage of Manhattan College. Graduates of its engineering programs are expected to meet high academic standards, reflect on moral and ethical considerations in all aspects of their lives, and appreciate the need for life-long learning in the fulfillment of professional goals. Part of the ethical considerations expected of all students is their observance of academic integrity. Students accept the Manhattan College Community Standards and Student Code of Conduct under which they will not engage in academic dishonesty cheating, plagiarism, and/or fabrication - or in academic misconduct, nor tolerate it in others. As aspiring engineers, students are expected to be aware of engineering codes of professional conduct which also prohibit dishonesty and misuse of intellectual property.

## Program Educational Objectives

The Bachelor of Science undergraduate engineering programs in the Manhattan College School of Engineering are individually accredited by the Engineering Accreditation Commission (EAC) of ABET, http://www.abet.org (http://www.abet.org/)/. (http:// www.abet.org.) ABET states that Program Educational Objectives must be published and that these objectives are consistent with the institution's mission, needs of program stakeholders and other ABET criteria. Each program is required to develop, publish, and periodically review its objectives.

Although each program develops its own objectives, there are some general themes that are recognized across the programs. These themes can be grouped as:

- Leadership, achievement, and involvement in engineering and related professions
- Dedication to furthering the engineering profession through continuous selfimprovement
- Ethical practices and moral character
- Commitment to engineering as a service-to-humanity profession

Graduates of the School of Engineering will be valued for their ethical practices and moral character, leadership and involvement in engineering and related professions, dedication to the profession through self-improvement, and recognition that engineering is a service to humanity.

## Student Outcomes for The Engineering Programs

ABET states that programs must have documented Student Outcomes that prepare graduates to attain the Program Educational Objectives. These outcomes relate to the knowledge, skills, and behaviors that students acquire as they progress through the program. ABET requires each program to adopt a standard set of outcomes plus any additional outcomes that may be articulated by the program. The standard set of seven (7) outcomes, referred to as ABET Student Outcomes (1) through (7), is:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

These standard (1) through (7) student outcomes have been adopted by the undergraduate engineering programs in chemical, civil, computer, electrical and mechanical.

The educational objectives and outcomes of all the programs in the School of Engineering are consistent with the school's mission and the Lasallian and Catholic heritage of Manhattan College. In addition, the outcomes articulated by each program are consistent with the Manhattan College core competencies of:

- Effective Communication
- Critical Thinking
- Information Literacy
- Technology Literacy
- Quantitative Literacy
- Scientific Literacy
- Global Awareness
- Religious and Ethical Awareness
- Independent and Collaborative Work


## Engineering Education

The foundation of the engineering curriculum includes:

1. The study of science representing the current state of human knowledge of the physical world and its behavior
2. The study of mathematics, the language and tool that engineers use to describe the physical world
3. Breadth of study in the humanities and social sciences, the basis for making ethical and moral engineering decisions
4. Development of the ability for independent learning and critical thinking
5. Development of skills in written, verbal, and graphical communication

In an age of revolutionary advances in science and technology, continual re-examination of trends in engineering becomes imperative. Accordingly, engineering faculty, in consultation with the Manhattan College Engineering board of advisors, a distinguished group of engineers and industrial leaders assembled from engineering-related
organizations, study and evaluate the concepts of engineering education and the school's programs. These studies re-emphasize the importance of humanities, mathematics and sciences as the foundation of engineering education. The engineering curriculum is, therefore, planned to provide the sound and broad education required in important branches of engineering.

## Curricula

The engineering curricula have been designed with two premises in mind: one, that sound undergraduate engineering education must establish fundamental concepts at the expense of specialization; and two, that first-line engineering research, development or design requires post-collegiate specialization and advanced study through graduate work or industrial training, together with continuing self-development.

The engineering curricula are four-year programs and lead to the Bachelor of Science degree in one of the traditional branches of engineering: chemical engineering, civil engineering, computer engineering, electrical engineering, and mechanical engineering.

Each program provides opportunities for minor studies, focus areas, or concentrations within its discipline. Despite the apparent division of engineering study into these curricula, there is a core engineering curriculum designed to offer the fundamental education required for all engineering students.

All students must complete ENGL 110 First Year Composition. International students may be required to successfully complete ENGL 106 Introduction to Composition before enrolling in ENGL 110. Students graduating from a U.S. high school may be required to complete ENGL 106 before enrolling in ENGL 110. ENGL 106 will not count towards degree credit in any engineering program.

All students must complete RELS 110 The Nature and Experience of Religion and six additional credits in religious studies. The additional credits are selected from approved courses.

The curriculum for the first year is common to all undergraduate programs in engineering. In order to enable a student to test their interest in one of the major engineering disciplines, they take designated courses from a specific discipline in the sophomore year. The curricula of the various engineering majors are detailed in the following section.

Each curriculum offers four areas of study:

1. General Education: Courses in this area comprise about one fifth of the entire curriculum and are conducted throughout the four years. These courses are intended to develop foundations for the fuller life of the student as a person. Courses in history, literature, philosophy, social sciences, business, education and religious studies blend with the scientific and technological growth of the student so that the student may progress as a more complete person toward a satisfying professional life.
2. Mathematics and the Basic Sciences: Approximately one quarter of the entire curriculum provides a thorough grounding in mathematics, at least through differential equations, and the basic sciences of chemistry and physics. These subjects are essential to all engineering students as the foundation of the engineering sciences. All first-year
students are required to pass a mathematics readiness and aptitude examination prior to enrolling in MATH 185 Calculus I.
3. The Engineering Sciences: Fundamental concepts in engineering sciences provide a comprehensive foundation for all engineering disciplines. Topics such as statics, dynamics, electrical circuits, materials science, and thermodynamics integrate and build on principles introduced in mathematics, chemistry, and physics. Engineering science courses enable students to develop the competence to apply essential principles to synthesize and design engineering systems.
4. The Major: The fourth area of study is the major field which is described in the following sections.

## The Major

Although significant specialization is postponed until after the bachelor's degree, basic programs in chemical, civil, computer, electrical, or mechanical engineering are offered as a major, comprising about one half of each curriculum. Each student is able to focus on one aspect of the engineering discipline in greater depth and to develop proficiency in engineering design.

The bachelor of science undergraduate degree programs in chemical engineering, civil engineering, computer engineering, electrical engineering, and mechanical engineering are accredited by the EAC of ABET, http://www.abet.org/. The Master of Engineering in Environmental Engineering program is also accredited by ABET.

## Minor Studies

Engineering students have the opportunity to develop depth in an area other than the major by completing a minor.

Students may minor in many areas including air \& space studies, biology, business, computer science, chemistry, economics, English, environmental studies, finance, political science, history, management, marketing, mathematics, modern foreign languages, peace studies, philosophy, physics, psychology, religious studies, urban affairs, and women and gender studies. In general, a minor requires 15 credits. Courses must be completed at Manhattan College.

Engineering students may also choose to minor in another engineering discipline. The minors are:

## Chemical Engineering--

CHML 207 Process Calculations, CHML 208 Chemical Engineering Principles I, CHML 305 Chemical Engineering Principles II, CHML 306 Separation Process Design I, and CHML 321 Chemical Reaction Engineering.

## Civil Engineering--

CIVL 302 Structural Analysis I, CIVL 309 Steel Design, CIVL 409 Reinforced Concrete Design, CEEN 303 Fluid Mechanics, and CIVL 310 Introductory Geomechanics.

1. For all students except electrical engineering majors:

EECE 210 Software Engineering I, EECE 229 Introduction to Digital Systems and EECE 232 Computer System, Organization \& Design, and two additional computer engineering courses approved by the ECE department chair.
2. For electrical engineering majors:

EECE 210 Software Engineering I and EECE 232 Computer System, Organization \& Design, plus three elective computer engineering courses, of which at least two must be upper division or graduate, approved by the ECE department chair. These elective courses cannot be used to simultaneously satisfy the requirements for electrical engineering.

## Electrical Engineering--

1. For all students except computer engineering majors:

EECE 201 Fundamentals of Electrical System Analysis I, EECE 203 Fundamentals of Electrical System Analysis II, and EECE 229 Introduction to Digital Systems Analysis II to Digital Systems, plus sequence A, B, or C as follows:
A. EECE 303 Signals and Systems I and EECE 304 Signals and Systems II , or
B. EECE 305 Electronic Systems I and EECE 306 Electronic Systems II, or
C. Two upper division courses in electrical engineering approved by the ECE department chair.
2. For computer engineering majors:

EECE 232 Computer System, Organization \& Design, and EECE 321 Embedded Systems Design, plus three elective electrical engineering courses, of which at least two must be upper division or graduate level, approved by the department chair. These elective courses cannot be used to simultaneously satisfy the requirements for computer engineering.

## Environmental Engineering--

The minor in environmental engineering is open to all engineering majors. Required course work includes ENGS 204 Environmental Engineering Principles I plus four courses from the following: CEEN 405 Construction Planning and Scheduling ENVL 406 Water and Wastewater Treatment Processes, ENVL 408 Environmental Engineering Design, ENVL 410 Hazardous Waste Design, ENVL 439 Environmental Engineering Projects, ENVL 505 Surface Water Quality Modeling. Students interested in the environmental engineering minor should contact Dr. Robert Sharp.

## Mechanical Engineering--

ENGS 205 Introductory Thermodynamics, ENGS 206 Statics, MECH 230 Introductory Solid Mechanics, MECH 318 Fluid Mechanics I, and MECH 325 Heat Transfer. This set of courses may be modified by the mechanical engineering department chair based upon the background of the student.

Students are responsible for any required prerequisites. Completion of the minor may qualify students for entry to the graduate program of the minor department. Except for
environmental engineering, students should contact the chair of the minor department for further information.

Engineering students may obtain an Application for Minor form at the office of the Dean of Engineering. After the form is completed by the program chair offering the minor, the form should be returned to the office of the Dean of Engineering by the student. When all courses have been completed, the dean will notify the office of the Registrar. The courses leading to a minor in engineering are subject to change. Please verify the coursework required with the Assistant Dean of Engineering before starting a minor.

## Transferring from a Community College

Students who complete a pre-engineering program will generally be permitted to transfer up to $50 \%$ of the credits required for a Bachelor of Science degree in an engineering degree program. Transfer credit will only be permitted for courses in which a grade of C (2.0) or higher has been earned. All transfer credits are reviewed by the Assistant Dean of Engineering
Students who graduate with an associate degree in a technology program will generally only be permitted to transfer 9 credits towards a Bachelor of Science engineering degree.

Engineering has transfer arrangements with various community colleges in the Tri-State area. Additional information can be obtained from the office of the Dean of Engineering at (718) 862-7281.

## Graduate-Level Courses (5XX, 6XX, 7XX)

Undergraduate students in all engineering disciplines may be allowed to take graduatelevel courses. Only those students who have a cumulative grade point average of at least a 3.00 may take the course for graduate credit with the approval of the department chair. Undergraduate students with a cumulative GPA of less than 3.00 will need the approval of the department chair to take the course for undergraduate credit. These courses will count for either undergraduate or graduate credit but not for both degree programs. Students who take dual-listed undergraduate-graduate courses cannot take the undergraduate level course for undergraduate credit then later take the graduate level course for graduate credit. Undergraduate students who enroll for undergraduate credit will be graded according to the standard undergraduate grading system, and the grade will be counted in the undergraduate grade point average. Tuition for the undergraduates in the graduate-level courses will be charged at the undergraduate rates provided the student does not exceed the total number of credits permitted for the semester. Qualified students are limited to a total of six credits of graduate level courses as undergraduates as described elsewhere in this undergraduate catalog.

## Seamless Master's Degree Program

Academically qualified undergraduate students may be invited to participate in a Seamless Master's Degree program in chemical, civil, computer, electrical, environmental, or mechanical engineering. Qualified students who enter Manhattan College with Advanced Placement and/or undergraduate college credit will generally be in a position to take graduate courses during their senior year at Manhattan College while completing
the requirements for the bachelor's degree. It may then be possible to obtain a Master's degree with only an additional year of study.

Undergraduate students who have earned a minimum of 3.20 cumulative GPA by the end of the first semester of their junior year are eligible to apply for the Seamless Master's Degree program upon the recommendation of a member of the engineering faculty. Transfer students may be considered after completing courses at Manhattan College. All students participating in the Seamless Master's Degree program are required to submit an application for admission to that graduate program. The application must be submitted in the senior year through the Office of Admissions. The application is online. Students are required to complete the baccalaureate degree with a cumulative GPA of 3.00, or better, prior to continuing for the additional year of graduate study.

Students admitted into the seamless master's degree program may enroll in 500, 600, or 700 level courses while completing the requirements for the bachelor's degree. These courses will count for either undergraduate or graduate credit but not for both degree programs. Students who take dual-listed undergraduate-graduate courses cannot take the undergraduate level course for undergraduate credit then later take the graduate level course for graduate credit. Because some required graduate courses are offered on a two-year rotation, admitted students must meet with the chair of the major department prior to their senior year in order to select appropriate 500, 600, and 700-level courses to satisfy the master's degree requirements. There is no tuition increase for enrolling in graduate courses during the senior year provided the student does not exceed the total number of credits permitted for the academic year.

After completing the undergraduate degree requirements, financial support may be available from individual departments for the additional year of graduate study. This support typically includes research assistantships, graduate assistantships, academic scholarships and grants, and industrial fellowships.

## Professional and Career Development

## Internships

Experiential learning is invaluable to an undergraduate engineering student. Engineering students are encouraged to seek full-time positions in the summer, and manageable, part-time positions during the school year. Such jobs can enhance learning and develop complementary skills and personal growth. The engineering programs at Manhattan College do not offer academic credit for such internships. However, a student may take ENGS 401 Internship for Engineering Students, a tuition-free, zero credit course, which will be shown on the student's transcript thus demonstrating participation in this type of experiential learning. The School of Engineering encourages its students to investigate the benefits of internships.

## Engineering Service

Service to the broader community is a Lasallian heritage that is exemplified in the engineering professions. Engineers are educated to serve the public via their work as professional employees of or as volunteers for public and private organizations - whether in design, manufacturing, project implementation, construction planning, public speaking, or teaching. They are also taught to consider the consequences of their work with respect
to ethics and to sustainability. Students engaged in engineering service activities may take ENGS 402 Service for Engineering Students, a tuition-free, zero academic credits course, which will be shown on the student's transcript thus demonstrating participation in a contribution to the community. The School of Engineering strongly encourages its students to investigate the benefits of service.

## Professional Engineering Licensing

An important distinction for engineers is to become a licensed professional engineer. Receipt of the baccalaureate degree from an institution accredited by the EAC of ABET is one important step towards licensure. The requirements for licensure include a two part examination. Engineering students in good academic standing at Manhattan College may take the first part, the Fundamentals of Engineering (FE) examination, during their senior year. All engineering students are strongly encouraged to take and pass the FE examination. The examination is heavily based on mathematics, basic sciences, and the engineering sciences. The engineering curricula at Manhattan College prepare the student for the examination.

## Fellowships and Professional Schools

Engineers have a variety of career options open to them within and beyond the engineering profession. Undergraduate engineers go on to complete advanced degrees in engineering and other disciplines and also pursue careers in teaching, business, law, and medicine. Engineering students are encouraged to use the expertise and services of the Manhattan College Center for Graduate School and Fellowship Advisement (CGSFA). The CGSFA is focused on helping students understand undergraduate research experience in the context of graduate school, fellowships, and career pathways. CGSFA advisors will work with students to determine whether graduate school fits in with their own professional development plans.

## Applying for Fellowships

The Center for Graduate School and Fellowship Advisement is committed to helping students understand the process of applying to very competitive national and international fellowships. The CGSFA guides students seeking fellowship opportunities well-suited to their personal and professional goals, crafting applications, developing research proposals and preparing for interviews. A faculty committee reviews student applications for fellowships requiring an institutional nomination.

## P reparation for Law School

The Center for Graduate School and Fellowship Advisement works closely with the faculty Pre-law Advisor, the Center for Career Development, and Alumni Relations to provide advising, resources, and opportunities for students interested in pursuing law school. No single major at Manhattan College is a prerequisite for applying to law school, nor is there a pre-law major or minor. Students that do well in the application process have strong analytic and problem solving skills, critical reading skills, writing skills, communication skills, research skills, task management skills and a dedication to public service and promotion of justice, according to the American Bar Association. Students are also encouraged to join and actively participate in the St. Thomas More Law Society.

## Pre-Health Advising and Preparation for Medicine and Dentistry

CGSFA works closely with the Health Professions Advisory Committee (HPAC), a body of faculty members, to give guidance and support to students interested in careers in medicine, dentistry and allied health fields. We are available to help students investigate their career options in healthcare, and to discuss curricula, activities, internships, research, and application procedures in the health professions. We support candidates through all aspects of the application process, and we work to provide opportunities to prepare students to be competitive applicants to health professions schools.

## Health Professions Advisory Committee

The Health Professions Advisory Committee is a group of faculty members who give guidance to students interested in preparing for careers in medicine, dentistry and allied fields. This committee helps students become aware of the course requirements and experiences essential for admission to professional schools. The committee advises students on the selection of programs of study that will give both background in the sciences and a broad liberal education to prepare them for effective participation in the human community. More detail and a list of minimum required courses for admissions to professional schools can be found in the undergraduate catalog section of Academic Resources.

## Pre-Health Concentration

The Pre-Health Concentration (http://catalog.manhattan.edu/undergraduate/science/ prehealth/) is recommended for students that wish to gain entrance to health professions schools, including medical school, dental school, veterinary school, optometry school, physician assistant programs and other health profession schools. While students are not required to be a part of the concentration in order to get a committee letter of evaluation from HPAC, students are strongly encouraged to consider enrollment in this concentration to be part of the competitive cohort that applies to health professions schools each year.

## Academic Standing

Students are considered to be in good academic standing in the College when their Manhattan College cumulative (GPA) is 2.00. To be considered in good academic standing in the School of Engineering, a student must have a cumulative engineering GPA of at least 2.00 and the semester grade point average must be at least 2.00. Grade point averages are computed at the end of each semester or term.

Students are expected to make adequate progress towards fulfilling their degree requirements every term. Adequate progress is described in the annually published School of Engineering Advising Manual. Students who are not making adequate progress are subject to academic sanctions.

Each of the engineering undergraduate programs has selected two different courses defined as gateway courses. These are essential courses in the different programs and the ability to successfully complete the courses in a timely manner is mandatory. Examples of gateway courses are ENGS 206 Statics for the civil engineering and mechanical engineering programs and CHML 207 Process Calculations for the chemical
engineering program. A list of the gateway courses is published in the annual School of Engineering Advising Manual. A student will be allowed a maximum of three (3) attempts to take and pass, with a grade of $C(2.00)$ or higher, each of the gateway courses in the student's program. After three unsuccessful attempts to pass a gateway course with a C (2.00) or higher, the student will be subject to dismissal from the engineering program (but not Manhattan College), as determined by the department chair and the dean.

A letter of academic warning is typically issued to each student earning a grade of $D$ or F in any given term, even if the student is still in good academic standing in engineering. Letters of academic warning in two consecutive terms, while the student is still in good academic standing in engineering, will result in a meeting with the Assistant Dean or the Dean of Engineering. The letter of academic warning clearly spells out the danger to an academic program from receiving unacceptable grades.

A letter of academic probation is typically issued to each student failing to remain in good academic standing in engineering. Also, a letter of academic probation is typically issued to students receiving multiple unsatisfactory grades (especially grades of F) even though the student may be in good academic standing. Freshman failing to remain in good academic standing after their first term may be placed on academic probation. Students on probation are required to take a reduced course load of 12 credits for the following term and may be restricted from participating in Manhattan College activities. Students may remove themselves from academic probation by achieving a grade point average of 2.0 by the end of the following regular term. Failing to achieve good academic standing while on probation can lead to an academic contract or, in extreme cases, dismissal.

An academic contract is typically issued to students failing to achieve good academic standing in engineering while on academic probation. A letter of academic contract is also typically issued to a student if the most recent term grade point average falls below 1.0 even if the student was not on probation the previous term. A student may not be on academic contract for two consecutive terms without authorization of the Dean of Engineering. A student who does not successfully complete an academic contract is subject to suspension or dismissal.

Students are subject to suspension when they fail to satisfy the conditions of the academic contract or fail to achieve good academic standing while on probation. In these situations, a judgment is made by the dean that the student's studies should be interrupted for a designated time period, usually six months or one year, before reinstatement would be considered. Suspended students must present evidence of their ability to continue their studies successfully when applying for such reinstatement into the school of engineering. Upon return, suspended students are subject to an academic contract for their first term back.

Dismissal is a permanent separation from Manhattan College, not just the School of Engineering. A letter of dismissal from the college may be issued to each student failing to satisfy the conditions of the academic contract or failing to achieve good academic standing while on probation. A student may also be dismissed from the college when earning failing grades in all courses attempted in any one term.

Generally, a student not in good academic standing may not enroll in more than four courses or for more than 14 credits, whichever is less. Exceptions to this limitation require the written permission of the Assistant Dean or the Dean of Engineering.

Engineering students must earn a grade of $C$ (2.0) or higher in:

| CHEM 101 | General Chemistry I | 3 |
| :--- | :--- | :--- |
| CHEM 103 | General Chemistry Laboratory I | 1 |
| CHEM 102 | General Chemistry II | 3 |
| CHEM 104 | General Chemistry Laboratory II | 1 |
| MATH 185 | Calculus I | 3 |
| MATH 186 | Calculus II | 3 |
| MATH 285 | Calculus III | 3 |
| PHYS 101 | Physics I | 3 |
| PHYS 102 | Physics II | 3 |

as required by the program of study, before enrolling in any 300 level engineering courses. A grade of C (2.0) or higher is required in MATH 286 Differential Equations prior to taking any 400 level engineering courses.

In addition, the following program-specific courses are also included in those which are allowed no more than three grades less than a C (i.e., no grades of $\mathrm{C}-$, $\mathrm{D}_{+}$, or D ).

| CHEM 309 | Physical Chemistry I | 3 |
| :--- | :--- | :--- |
| CHEM 310 | Physical Chemistry II | 3 |
| CHEM 319 | Organic Chemistry I | 3 |
| CHEM 320 | Organic Chemistry II | 3 |
| CHEM 323 | Organic Chemistry Laboratory I | 2 |
| PHYS 201 | Wave Theory of Light and Matter | 3 |

A student is permitted no more than three grades below a C (2.0) in engineering courses. If a student earns less than a C (2.0) in more than three engineering courses, the student must repeat one or more of the courses with a grade of $C$ (2.0) or higher. The course(s) to be repeated will be determined in consultation with and approval of the Assistant Dean of Engineering.

In addition, all CMPT and MATH courses required for any engineering program and any mathematics and science elective courses are also included in this requirement. Additional courses may be added during the period of this catalog so students are advised to contact the chair of their department or the Assistant Dean of Engineering to determine if they will need to repeat a course in which they earn a grade of C- (1.67) or lower.

## General Education Requirements For Engineering Majors

A graduate of the School of Engineering is expected to be technically competent in the chosen program of study and also prepared as a citizen, an advocate, and a leader in the complex world of the 21st century. A broader education beyond science, technology, engineering, and mathematics (STEM) courses is expected of the modern engineering graduate. STEM courses must be augmented and balanced by courses from other disciplines such as English, foreign languages, history, religious studies, communication, sociology, education, political science, business, and economics.

The EAC of ABET requires that engineering program curricula offer a professional component which must include "a broad education component that complements the technical content of the curriculum and is consistent with the program and institution objectives." In order to meet ABET requirements and institutional objectives, students graduating from an engineering program at Manhattan College must successfully complete the following general education requirements:

- ENGL 110 First Year Composition 3 credits (required of all students)
- RELS 110 The Nature and Experience of Religion 3 credits (required of all students)
- Religious Studies - Additional 6 credits with students selecting one course from Elective Group A (Catholic Studies) and one course from Elective Group B (Global Studies and Contemporary Issues)
- Humanities, Social Sciences or other approved courses - 12 to 15 credits (depending on the engineering program) from subject areas such as modern foreign languages ( 200 Level or higher), religious studies (beyond the 9 credits described above), fine arts, history, philosophy, English, political science, economics, psychology, sociology, business and education.

A list of acceptable courses can be found in the annually updated School of Engineering Advising Manual. Additional restrictions may be applied and final acceptance of all courses meeting the general education requirements are subject to approval by the Office of the Dean of Engineering.

## Guidance Program

The guidance and advisory program for students in engineering follows the pattern established for the entire college. First-year students are advised by the Assistant Dean and Academic Advisor in the office of the Dean of Engineering. The chairs or designated faculty members of engineering departments act as advisors to upper division students. Those students may also receive guidance and advice through the office of the Dean of Engineering. The phone number for the office of the Dean of Engineering is (718) 862-7281.

Departmental faculty members are available to advise junior and senior students with respect to career opportunities in their major, as well as the program of study.

## Student Societies

Student chapters of several national engineering societies have been established at Manhattan College to assist the student in becoming familiar with the engineering profession: American Institute of Chemical Engineers, American Society of Civil Engineers, American Society of Mechanical Engineers, and Institute of Electrical and Electronics Engineers.

Other organizations of special interest to engineering students include: American Chemical Society; Society of Hispanic Professional Engineers; Society of Women Engineers; American Society of Heating, Refrigeration, Air Conditioning Engineers; The New York Water Environment Association; and the Society of Automotive Engineers. Chapters of Tau Beta Pi (Engineering), Omega Chi Epsilon (Chemical Engineering), Chi Epsilon (Civil Engineering), Eta Kappa Nu (Electrical Engineering), and Pi Tau Sigma
(Mechanical Engineering) honor societies have been chartered at Manhattan College to recognize students who excel in scholarship and leadership. Membership in these national honor societies is open to juniors and seniors.

## Certification For Graduation

The Dean of the School of Engineering must certify that a student has satisfied all requirements for their program of study prior to graduation. The dean may approve program modifications, if necessary, to meet program requirements.

# Chemical Engineering 

Dr. Sasidhar Varanasi<br>Chair, Department of Chemical Engineering

## Vision Statement

Our vision is to be recognized for producing highly-valued professionals who are leaders in developing innovative solutions to engineering problems.

## Mission Statement

Our mission is to graduate socially-responsible engineers with strong technical, communication, teamwork, and interpersonal skills, while incorporating the Lasallian Heritage of Manhattan College. This mission enables our graduates to pursue wideranging career paths in chemical and related industries, advanced graduate studies, and to engage in life-long learning.

## Chemical Engineering

Chemical engineers combine mathematics and advanced chemistry with engineering principles to design, develop and operate industrial processes for the manufacture of a host of products including:

- fuels, plastics, synthetic fibers,
- paints, solvents, industrial chemicals and chemical intermediates,
- semiconductor and other advanced materials, and
- biotechnology, pharmaceutical products, medicines and vaccines
- a variety of consumer products such as foods, beverages, and cosmetics.

A chemical engineer's education permits the student to work in process engineering, design and construction, research \& development, computer simulation, pollution prevention and remediation, safety and accident management.

The Chemical Engineering program includes course work in material and energy balances, thermodynamics, reaction engineering, heat and mass transfer, separation processes, chemical process control, process safety, and plant design. Lectures are complemented by comprehensive laboratory courses covering experiments in fluid mechanics, material science, and wide range of unit operations such as distillation, filtration, heat-transfer, mass transfer, and reaction engineering. Computer usage including software applications, programming, process simulation packages, and data acquisition are integrated throughout the curriculum. Important aspects of process safety, economics, environmental sustainability, and engineering ethics are also incorporated seamlessly into the curriculum. In addition to core-chemical engineering courses, all students are required to complete three advanced engineering electives and an advanced science/engineering elective to fulfill the degree requirements. The program offers New York State-approved areas of concentration in: (1) Biopharmaceutical Engineering and (2) Cosmetic Engineering, as well as a focus area in (3) Principles and Processing of Novel Materials. Students can choose their advanced science/engineering electives (total of four) to fulfill the course requirements for the selected concentration/focus area.

## Areas of Concentration in Chemical Engineering

In addition to the foundational program in chemical engineering, a student may focus on a concentration area, as described previously:

- Biopharmaceutical Engineering: This concentration will prepare students for a variety of roles in the biopharmaceutical and biotechnology sectors, including discovery, development, formulation and production of pharmaceutical products and therapeutic agents.
- Consumer Products and Cosmetic Engineering: This concentration, the only one of its kind in the nation, will prepare students for a variety of roles in the cosmetic and consumer product industries, including product formulation and development, process engineering, and research and development. This specialized option in consumer products and cosmetic engineering brings together a unique set of courses designed specifically to prepare chemical engineering graduate students for a successful entry into this highly competitive and rapidly growing industrial sector.
- Principles and Processing of Novel Materials: This concentration provides students a competitive advantage at companies specializing in biomaterials, semiconductors, additive manufacturing and smart materials, covering topics in chemical vapor deposition, 3-D printing, and energy storage materials such as solar cells.

Students interested in one of the concentrations must meet with the department chair to plan for the necessary coursework.

## Biopharmaceutical Engineering courses

These courses will provide students with specialized training in microbial and cell growth, polymers and emulsions, bioseparation processing, bioprocess design, formulation of pharmaceutical products, and regulatory issues relevant to the biopharmaceutical field. Students are required to complete: CHML 461 Industrial Practice in Pharmaceutical Industry (3 credit hrs), and at least three of the following electives for a total of 12 credits: CHML 459 Formulations II (3 credit hrs); CHML 460 Emulsion \& Polymer Tech (3 credit hrs); CHML 462 Manufacturing and Analysis of Pharmaceutical Products (3 credit hrs); CHML 463 Industrial Regulations \& Quality ( 3 credit hrs); CHML 470 Bioseparations ( 3 credit hrs), or CHML 472 Bioreaction Engineering (3 credit hrs).

## Consumer Products and Cosmetic Engineering courses

These courses will provide students specialized training in product formulation, polymers and emulsions, complex fluids, and regulatory issues relevant to cosmetic and consumer product industries. Students are required to complete: CHML 458 Formulations I (3 credit hrs); and CHML 460 Emulsions \& Polymer Technology (3 credit hrs), and at least two of the following electives for a total of 12 credits: CHML 452 Advanced Processing Theory (3 credit hrs); CHML 453 Advanced Processing Techniques (3 credit hrs); CHML 459 Formulations II ( 3 credit hrs) or CHML 463 Industrial Regulations \& Quality (3 credit hrs).

## Principles and Processing of Novel Materials courses

These courses focus on the production of biomaterials, polymers, ceramics, and semiconductor materials, as well as processing techniques including additive manufacturing, extrusion, blow molding, and calendaring, and thin-film formation techniques such as chemical vapor deposition. Students are required to
complete: CHML 460 Emulsions \& Polymer Technology (3 credit hrs): CHML 473 Synthesis \& Deposition of Thin Films(3 credit hrs); and CHML 475 Production \& Application of Biomaterials ( 3 credit hrs) for a total of 12 credits.

These areas of concentration prepare students for professional employment as well as graduate studies.

## Pre-medical option

Chemical engineering curriculum has a significant overlap with the curricular requirements of a B. S. degree recipient seeking admission to a MD program. Accordingly, Chemical engineering students who plan to enter the medical profession must complete BIOL 111 General Biology I; BIOL 112 General Biology II; BIOL 113 General Biology I Laboratory; BIOL 114 General Biology II Laboratory and CHEM 324 Organic Chemistry Laboratory II in addition to the courses required for graduation. Students interested in pursuing an MD degree must also consult with Drs. Bruce Liby (Pre-Health Professions Advisor) and Rani Roy (AVP, Student \& Faculty Development) to plan for the necessary coursework.

## Environmental Engineering Minor within Chemical Engineering

An environmental engineering minor is available for students within the Chemical Engineering Department. Students pursuing in the environmental engineering minor are required to take ENGS 204 Environmental Engineering Principles I in their Sophomore year, followed by a minimum of four courses from the following: CEEN 405 Construction Planning and Scheduling, CEEN 314 Water \& Wastewater Treatment Processes, ENVL 410 Hazardous Waste Design, ENVL 439 Environmental Engineering Projects, ENVL 505 Surface Water Quality Modeling, ENVG 507 Groundwater and ENVG 508 Environmental Chemistry.

## Seamless Masters

Academically qualified undergraduate students may be invited to participate in a Seamless Master's Degree program. Additional information can be found on the School of Engineering webpage: https://catalog.manhattan.edu/undergraduate/engineering/.

## Program Educational Objectives

Graduates from the Chemical Engineering program at Manhattan College are expected to attain or achieve the following within a few years of graduation:

- Be recognized in the chemical and related industries, consulting firms, government agencies, and other venues as highly valued-professionals
- Progress towards or successfully complete graduate or other professional studies.


## Student Outcomes

The Chemical Engineering program uses the standard set of ABET, Inc. Student Outcomes (1) through (7) as described above under the School of Engineering (https:// catalog.manhattan.edu/undergraduate/engineering/).

## Four-Year Program

The curriculum for the first year is common to all branches of engineering. Students begin to take designated courses from the chemical engineering curriculum in their sophomore year. The junior and senior years allow for concentrated studies in a variety of traditional and focus areas including material and energy balances, mass transfer, heat transfer, thermodynamics, reactor design and kinetics, separations, process safety, process control and computer-based process simulation and process design. Electives in the senior year allow students to choose one of the three Areas of Concentration: Consumer Products and Cosmetic Engineering; Biopharmaceutical Engineering; and Principles and Processing of Novel Materials or a minor in Environmental Engineering. A representative four-year program is shown in the following table.

## Chemical Engineering

## Freshman

## Fall

CHEM 101/CHEM $103^{*}$
or PHYS 101/PHYS $191^{*}$
ENGL 110 or RELS $110^{\text {b }}$
ENGS 115
MATH $185{ }^{*}$
General Education Elective *

Credits Spring * Credits
CHEM 101/CHEM $103^{*}$
4 or PHYS 101/PHYS 191* 4
3 ENGL 110 or RELS $110^{\text {b }} 3$
3 ENGS 1163
3 MATH 186* 3
3 General Education Elective ** 3
16 16
Sophomore Fall

Credits Spring
Credits
4 ENGS 204 or 2063
3 MATH $286^{*} 3$
3 MATH 3363
1 CHML 208 3
3 CHML 2093
3 CHML $211 \quad 1$
ENGS $302^{+} 0$
0
17

## Junior

Fall
Credits Spring
Credits
3 CHML 316
2 CHML 321 3
3 CHML 3393
3 CHEM 310 (or CHEM 335 or 3 CHEM 433)
3 CHEM 320Rel Studies Elective RELS3 ENGS $302^{+}$0
$2 x x / 3 x x^{b}$
ENGS $301^{+}$ ..... 0
17 ..... 15
Senior

## Fall

CHML 403
CHML 405
CHML 423
Adv Sci/Eng Elective ${ }^{\text {c }}$
Adv Engineering Elective 400 level
Gen. Edu. Elective **

Credits Spring Credits
3 CHML 404
3 CHML 4063
3 Adv Engineering Elective 400
level
3 Adv Engineering Elective 400 ..... 3
level
3 Rel Studies Elective RELS ..... 3
$2 x x / 3 x x^{b}$
3 Gen. Edu. Elective ** ..... 3

## Total Credits: 133

* A grade of C (2.0) or better in calculus I, II, III, differential equations, chemistry, and physics is required.
** A list of general education electives can be found in the Academic Advising Manual online (https://inside.manhattan.edu/schools/engineering/advising.php). Students must take two (2) social science courses, one (1) humanities and one (1) additional social science or humanities. For social sciences, these courses may be chosen from economics, political science, psychology, sociology or management (MGMT 201). For humanities, these courses may be chosen from history, philosophy, religious studies (in addition to the three (3) religious studies requirements), English (200 level), modern foreign language (200 level or higher), history-based art, historybased music, business law (LAW 203) and international studies (INTL 312).
a A grade of "C" or better is required in CHML 205 (Introduction to Thermodynamics) in order to take CHML 209 (Chemical Thermodynamics). A grade of " C " or better is required in CHML 207 (Process Calculations), before a student will be allowed to CHML 208 (Chemical Engineering Principles I). These are the gateway courses for the chemical engineering program and students are permitted to take these courses only three times in order to achieve a C or better. Failing to do so will result in the student being dismissed from the program.
b All engineering students are required to take ENGL 110, RELS 110, one RELS 2xx elective and one RELS 3xx elective.
c Students must take an advanced science (chemistry, math or physics) or engineering elective in senior year from an approved list provided by the chemical engineering department chair. Certain advanced level mathematics courses will also count towards mathematics minor.
$+\quad$ These are zero credit hour pass/fail courses that show up on the transcript with mandatory registration. You need to register for and pass ENGS 301 and ENGS 302 to fulfill graduation requirements.


# Civil \& Environmental Engineering 

Dr. Matthew Volovski<br>Chair, Department of Civil and Environmental Engineering

## Vision Statement

The Civil and Environmental Engineering Department will be nationally recognized for producing leaders in the fields of civil and environmental engineering.

The Civil and Environmental Engineering Department will continue to develop and enrich the educational experience of its students. This is accomplished by providing specialized courses in a variety of sub-disciplines such as structural, environmental, geotechnical, transportation, and water resources engineering. This objective is also accomplished through the Master's degree programs in civil engineering, construction management, and environmental engineering and the strong research programs at both the undergraduate and graduate levels which provide unique opportunity for enrichment of student experience. Students pursuing a master's degree in environmental may choose between an M.E. and an M.S. degree

## Program Educational Objectives

Graduates of the undergraduate Civil Engineering program will be recognized for their:

- Technical skills in civil \& environmental engineering
- Ethical practices and moral character
- Leadership, achievement, and involvement in engineering and engineering-related professions
- Dedication to furthering the engineering profession through continuous selfimprovement
- Commitment to engineering as a service-to-humanity profession through practicing sustainable engineering for New York and the world.


## Student Outcomes

The Civil Engineering program uses the standard set of ABET, Inc., Student Outcomes (1) through (7) as described above under Engineering.

## Civil Engineering Program

## Mission Statement

The mission of the undergraduate Civil Engineering program is to develop an educational plan for each of our students so upon graduation they are prepared to continue their graduate studies or enter into the civil engineering profession.

The goal is to prepare students to function professionally as responsible members of the global engineering community dedicated to life-long learning and collaborative practice, discovery and sharing a breadth of knowledge. The program puts particular emphasis on introducing the students to the broad range of civil engineering disciplines.

Civil engineers use mathematics, along with the basic sciences and engineering sciences, in the study of the structural, geotechnical, transportation, environmental, and water resources engineering disciplines. These disciplines allow a civil engineer, working to improve the environment, to plan, design and construct the industrial plants of the world, the great public works, the housing, the bases for space exploration and the transportation networks.

Structural engineering deals with the analysis, design and construction of buildings, bridges, ships, aircraft, and other structures. Environmental engineering allows a civil engineer to analyze and model the environment, assess the effects of human activities on it, and design control facilities to ensure improvement and protection of environmental resources. Geotechnical engineering focuses on soil behavior and the subsequent design of adequate supports for all structures resting on the earth. Transportation engineering emphasizes the planning, design, and construction of efficient transportation infrastructure such as highways, airports, railways, seaports, and public transport. Water resources engineering focuses on water usage and distribution across networks as well as the design and construction of infrastructure that control bodies of water, such as rivers, lakes, reservoirs, and oceans.

Students obtain strong technical knowledge by taking at least two required courses in each of the above disciplines. Students also choose from a wide range of elective courses, where they can concentrate on specific topics in their areas of interest.

All undergraduate students in the department pursue a four-year degree in civil engineering. The program also accommodates students who wish to pursue a minor in environmental engineering, in addition to their civil engineering major.

## Four-Year Program in Civil Engineering

The curriculum for the first year is common for all the majors in engineering. Students take the foundational courses in the sophomore year. The junior and senior years allow for concentrated studies in the areas of structural, environmental, geotechnical, transportation, and water resources engineering. A representative program is shown below.

## First Year

Fall
MATH $185^{1}$
CHEM 101/103 or PHYS 101/191 ${ }^{1}$
ENGS 115
ENGL 110 or RELS 110
General Education Elective ${ }^{4}$
Credits Spring

Credits

3 MATH $186^{1}$ 3
4 CHEM 101/103 or PHYS 101/191 4

3 ENGS 116 3
3 General Education Elective ${ }^{4} 3$
3 ENGL 110 or RELS 1103
16

## Second Year

Fall
Credits Spring
Credits
3 MATH $286{ }^{1}$
4 PHYS 102/PHYS $192^{1} 4$

| ENGS 230 ${ }^{1,5}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| ENGS $204{ }^{1}$ |  | 3 CIVL $201{ }^{1}$ |  |
| ENGS 206 ${ }^{1,5}$ |  | 3 or CIVL $202{ }^{1}$ | 3 |
| CIVL $201{ }^{1}$ |  | Approved Science Elective ${ }^{2}$ | 3 |
| or CIVL $202{ }^{1}$ |  | 3 |  |
| Approved Science Elective ${ }^{2}$ |  | - |  |
|  |  | 16 | 16 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| CEEN 303 ${ }^{1,3}$ |  | 3 CEEN $307{ }^{1}$ | 3 |
| CEEN 304 |  | 1 CEEN 308 | 3 |
| CIVL 302 ${ }^{1,3}$ |  | 3 CIVL 309 ${ }^{1}$ | 3 |
| CEEN $314^{3}$ |  | 3 CIVL 310 ${ }^{1}$ | 3 |
| CIVL 305 ${ }^{1,3}$ |  | 3 CIVL 311 | 1 |
| CIVL $306{ }^{3}$ |  | 3 CIVL $312^{1}$ | 3 |
|  | 16 |  | 16 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| CIVL 406 or ENVL $406{ }^{6}$ |  | 3 CIVL 411 or ENVL $408{ }^{1}$ | 3 |
| CIVL 410 or ENVG $507{ }^{1}$ |  | 3 CIVL 412 | 3 |
| CIVL 4096,7 |  | 3 CIVL/ENVL Elective | 3 |
| CIVL/ENVL Elective |  | 3 CIVL/ENVL Elective | 3 |
| General Education Elective ${ }^{4}$ |  | 3 General Education Elective ${ }^{4}$ | 3 |
| RELS Catholic Studies or RELS |  | 3 RELS Catholic Studies or RELS | 3 |
| Contemporary/Global Studies |  | Contemporary/Global Studies |  |

## Total Credits: 132

1 These courses must be passed with a grade of $C$ (2.0) or better.
2 Students are required to take one approved science elective in their sophomore or second year of the program. They may take this class either in the fall or in the spring semester. Approved science electives are: BIOL 222 Biology for Engineers, together with BIOL 224 BiologyForEngineers Laboratory; and SCI 301 Earth Science for Engineers.
3 Students are not allowed to enroll in any junior level or third year courses before completing all prerequisite mathematics, science and engineering science courses. General Education Elective.
5
Students are not allowed to repeat the course more than three times. Failure to successfully complete the course in three attempts will lead to dismissal from the program.
6 The student must pass these courses with a grade of $C$ (2.0) or better to enroll in CIVL 411 and/or ENVL 408.

7 The C requirement is waived for students in the environmental concentration.

## Environmental Engineering Minor within Civil Engineering

An environmental engineering minor is available for students within the Civil \& Environmental Engineering Department. All Civil Engineering students follow the same curriculum for the first three years. For those pursuing a minor in Environmental Engineering, the following sequence is recommended for the fourth year. The required classes are the capstone design sequence (ENVL 406/ENVL 408) in Water Treatment / Environmental Engineering Design and either Geoenvironmenal Engineering (CIVG 501) or Groundwater (ENVG 507). In addition, there are three environmental engineering electives.

## Senior

Fall Credits Spring Credits

ENVL 406
CIVG 501 or ENVG 507
CIVL 409 (Reinforced Concrete) ${ }^{7}$
Environmental Elective*
RELS Elective
General Education Elective
3 ENVL 408 (Environmental 3 Engineering Design)

3 CIVL 412 (Highway Design) 3
3 Environmental Elective* 3
3 Environmental Elective* 3
3 RELS Elective 3
3 General Education Elective 3
18
Total Credits: 36
*Environmental electives are selected in consultation with the Environmental Engineering Graduate Program Director in the Civil \& Environmental Engineering Department.
Students who wish to enroll in the EAC of ABET accredited M.E. program (see below) must take one science course (currently, either Biology or Earth Science) as one of their Environmental Electives.

Completion of the Environmental Engineering Minor allows students entry into the EAC of ABET Accredited Masters of Engineering (M.E.) Graduate Program provided they have a cumulative G.P.A. of 3.0.

In addition, there are numerous opportunities for partial or full financial support for graduate studies including:

- Graduate Internships
- Graduate Fellowships
- Graduate Research Assistantships (GRAs)
- Graduate Laboratory Assistants (GLAs)


## Fundamentals of Engineering Examination-- Civil \& Environmental Engineering Department

All students must take the Fundamentals of Engineering (FE) examination in their fourth year as a requirement to graduate from the program. While students are not required to pass the FE exam, they are required to take the FE exam and document that they have completed the requirement.

# Electrical \& Computer Engineering 

Dr. Robert Mauro<br>Chair, Department of Electrical and Computer Engineering

## Vision Statement

The Electrical and Computer Engineering programs will be recognized for educating highly-valued engineers grounded in fundamental principles who are leaders in developing innovative solutions to engineering challenges.

## Mission Statement

The mission of the Electrical and Computer Engineering programs is to bring together students from diverse backgrounds, provide them with an excellent technical education based on the fundamental principles of discovery and collaboration, foster an appreciation of ethical, environmental, and economic concerns, and develop within them an understanding of the importance of life-long learning. Graduates of the program will be prepared to become successful and socially responsible professionals and community leaders.

Central to the programs are certain principles, including the importance of collaboration, the discovery and sharing of knowledge, the appreciation of ethical, safety, and economic concerns, and the need for life-long learning and advanced study.

## Program Educational Objectives

Graduates of either the Electrical Engineering or Computer Engineering programs will be valued by the engineering community. Graduates will be recognized for their:

- Practicing electrical and computer engineering in a broad range of industries and technical skills in professional or advanced academic settings.
- Committing to the engineering profession and to expanding their knowledge and skill set with increasing independence and responsibility,
- Conducting themselves in a responsible, professional, and ethical manner.
- Participating in activities that support humanity and economic development nationally and globally, developing as leaders in their fields of expertise.


## Student Outcomes

In order to prepare our students to meet these objectives after graduation the Electrical and Computer Engineering department has adopted the ABET 1 to 7 criteria as the appropriate student outcomes that our curriculum is designed to foster in our students:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

## 3. An ability to communicate effectively with a range of audiences

4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Electrical and Computer Engineering

Electrical engineers and computer engineers work at the frontier of high technology and are involved in research, the creation of new ideas, the design and development of new products and technologies, manufacturing, and marketing activities. In the Electrical and Computer Engineering (ECE) Department, students acquire significant hands-on-lab experience through undergraduate and graduate concentrations and research projects. These areas include electronics, electromagnetics, bioelectrical engineering, cybersecurity systems, computer visualization, power grids and green energy engineering, internet-ofThings (loT), communications, space systems, and mobile programming.

Electrical and computer engineers are at the forefront in the design and implementation of tomorrow's consumer and industrial products. Today, because much of this work is intimately involved with the field of artificial intelligence, it is clear that many of today's and tomorrow's ECE jobs will require a considerable knowledge of these AI concepts.

Because our department has a commitment to ensure that our students are prepared to assume job leadership roles when they graduate, we have developed a strong AI component in our ECE courses. For example, we currently offer undergraduate courses in ECE Applications of Artificial Intelligence, Robotics, Applied Bioinformatics, Unmanned Autonomous Vehicles, and Applied Data Mining for Engineers.

## Computer Engineering

Computers continue to advance at a staggering pace and are being embedded into every kind of technology including consumer products, transportation, space systems, medical products, and military systems. Manhattan College's Computer Engineering Program offers a comprehensive analysis and design curriculum in computer systems, concentrating on both hardware and software, in order to provide an outstanding, cuttingedge education. This program incorporates the latest developments in marketing and technology, as well as traditional disciplines such as electronics, communications, and control and programming in a variety of emerging areas, such as Cyber Security, Parallel Computers, Image Processing, Wireless Networks, VLSI (Very Large-Scale Integration), Big Data, Data Mining, and Artificial Intelligence. The Computer Engineering Program is accredited by the Engineering Accreditation Commission of ABET (https://www.abet.org/), under the General Criteria and the Computer Engineering Program Criteria.

The curriculum emphasizes strong communication and interpersonal skills in order to produce well-rounded engineers. Students are provided with the opportunity to develop these skills not only through required courses in the humanities and social sciences, but also through team projects in design courses.

Graduates in Computer Engineering have gone on to develop digital systems such as supercomputers, smartphones, laptops, servers, IOT devices, and robotics. Many of our graduates currently hold
positions in the manufacturing, research, financial services, health, and government sectors.

## Electrical Engineering

Wide in scope and variety, electrical engineering ranges from design of solid-state devices and increasingly complex microcircuits to the development of communication systems and power generating equipment to meet society's accelerating demand for clean energy. The fundamental principles of information processing and control inherent in an electrical engineer's background also find applications in such diverse areas as industry, medicine, aerospace, green energy, and power systems.

Coursework in both the Electrical Engineering and Computer Engineering programs emphasizes understanding of electrical circuits and electromagnetic theory as a framework for later courses in electronics, energy conversion, computers, automation, and engineering systems. Embedded laboratory experiences associated with the lecture materials provide design experience and stress the accuracy and limitations of electrical instruments and measuring devices. Senior multidisciplinary research and design projects offer opportunities for creative work with personal guidance. Additionally, undergraduate students have the opportunity to participate in research work through class or special projects.

## Four-Year Electrical Engineering and Computer Engineering Programs

The ECE department offers two-degree programs, one in Computer Engineering and the other in Electrical Engineering. The curriculum for the first year is common to all engineering disciplines within the college. Additionally, students intending to major in computer engineering or electrical engineering complete a common sophomore year in which basic concepts of contemporary digital environments, modern computer hardware organizations, and analysis of systems underscore coursework. This common approach provides maximum flexibility and permits a student to delay the choice of major within the ECE department.

Discipline-specific courses are taken in both the junior and senior years. Here, both Computer and Electrical engineering majors can choose from a variety of technical electives and "concentration courses" to enhance individual educational objectives. The four-year programs for both majors are summarized below.

## Undergraduate Concentrations

The integrative curriculum prepares students to identify, formulate, and execute solutions to real-world problems. Students learn how to combine engineering principles with
science and use engineering tools with activities that reinforce the concepts learned in the classroom. As part of these efforts, concentration study areas have been approved by the New York State Education Department (NYSED). Paired with the rigorous curricula and a hands-on project-based approach, concentrations reinforce the broad relevance of the powerful problem-solving methodologies of engineering and illuminate enabling technologies for applications of technology. The Electrical Engineering program offers concentrations in Cybersecurity, Power Grids, and Green Energy Engineering, while the Computer Engineering program offers a concentration in Cybersecurity:

## Concentration in Cybersecurity

The concentration in Cybersecurity provides a broad background in the principles, design, and
applications of cybersecurity systems for cloud computing and the Internet of Things (IoT).

## Concentration in Power Grids and Green Energy Engineering

The concentration in Power Grids and Green Energy Engineering provides a broad background in
the principles, analysis, and design of large electric power and green energy systems, smart
grids, electric energy conversion, and the application of electronic devices at high power levels.

## Electrical Engineering Program

## Freshman

Fall Credits Spring Credits

ENGS 115
MATH $185^{*}$
CHEM 101/103 or PHYS
101/191
ENGL 110 or RELS 110
GEN ED ELEC
Credits
Spring Credits
3 ENGS 116
3 MATH 186* 3
4 CHEM 101/103 or PHYS 4 101/191
3 ENGL 110 or RELS 1103
3 GEN ED ELEC 3
16

## Sophomore

Fall
Credits Spring Credits
EECE 201
3 EECE 2033
EECE 210
3 EECE 2323
EECE 229
3 MATH 286* 3
MATH $285{ }^{*}$
3 PHYS 102* 3
ENGL ELECTIVE
3 PHYS 1921
GEN ED or RELS ELEC 3 GEN ED or RELS ELEC 3

## Junior

| Fall | Credits | Spring |
| :--- | :---: | ---: |
| EECE 303 | 3 EECE 304 | Credits |
| EECE 305 | 4 EECE 306 | 4 |
| EECE 307 | 4 EECE 311 | 4 |
| EECE 321 | 3 EECE 315 | 3 |
| GEN ED ELEC | 3 EECE 326 | 4 |
|  | $\mathbf{1 7}$ | 3 |
| Senior |  | $\mathbf{1 8}$ |
| Fall | Credits $\quad$ Spring | Credits |
| EECE 410 | 3 EECE 411 | 3 |
| EECE 477 | 3 EECE 425 | 3 |
| TECHNICAL ELECTIVE | 3 EECE 474 | 3 |
| TECHNICAL ELECTIVE | 3 TECHNICAL ELECTIVE | 3 |
| TECHNICAL ELECTIVE | 3 TECHNICAL ELECTIVE | 3 |
|  | GENERAL EDUCATION | 3 |

Fall
EECE 303
EECE 305
4 EECE 306 4

EECE 307
4 EECE 3113
3 EECE 315 4
3 EECE 3263
17
Senior
Fall
EECE 410
3 EECE 4113
3 EECE 4253
3 EECE 4743
3 TECHNICAL ELECTIVE 3
3 TECHNICAL ELECTIVE 3
GENERAL EDUCATION 3
ELECTIVE
$15 \quad 18$
Total Credits: 134

## Computer Engineering Program

## Freshman

Fall Credits Spring Credits

ENGS 115
MATH $185{ }^{*}$
CHEM 101/103 or PHYS 101/191

ENGL 110 or RELS 110
GEN ED ELEC
3 ENGS 1163

3 MATH 186* 3
4 CHEM 101/103 or PHYS 4 101/191
3 ENGL 110 or RELS 1103
3 GEN ED ELEC 3
16
16

## Sophomore

Fall Credits Spring Credits

EECE 201
3 EECE 2033
EECE 210
3 EECE 232 3
EECE 229
3 MATH 286 * 3
3 PHYS 102* 3
3 PHYS 1921
3 GEN ED or RELS ELEC 3

Junior

| Fall | Credits | Spring | Credits |
| :---: | :---: | :---: | :---: |
| EECE 303 |  | 3 EECE 304 | 4 |
| EECE 305 |  | 4 EECE 306 | 4 |
| EECE 307 |  | 4 EECE 311 | 3 |
| EECE 321 |  | 3 EECE 315 | 4 |
| GEN ED ELEC |  | 3 EECE 320 | 3 |
|  | 17 |  | 18 |
| Senior |  |  |  |
| Fall | Credits | Spring | Credits |
| EECE 410 |  | 3 EECE 411 | 3 |
| EECE 476 |  | 3 EECE 473 | 3 |
| TECHNICAL ELECTIVE |  | 3 EECE 475 | 3 |
| TECHNICAL ELECTIVE |  | 3 GENERAL EDUCATION ELECTIVE | 3 |
| TECHINCAL ELECTIVE |  | 3 TECHNICAL ELECTIVE | 3 |
|  |  | TECHNICAL ELECTIVE | 3 |
|  |  | 5 | 18 |

## Total Credits: 134

Footnotes

* Students must earn a grade of C (2.0) or better in calculus I, II, III, differential equations, chemistry and physics.

Notes:

1. EECE 201 Fundamentals of Electrical Systems Analysis I and EECE 203

Fundamentals of Electrical Systems Analysis II must be completed with a grade of C (2.0) of better.

# Mechanical Engineering 

Dr. Parisa Saboori<br>Chair, Department of Mechanical Engineering

## Vision Statement

The Mechanical Engineering program at Manhattan College will be distinguished by its education of engineers who are recognized locally and globally for their contributions and leadership in mechanical engineering and related professions.

## Mission Statement

The mission of the Mechanical Engineering program is to provide students with an education that will prepare them for future challenges in mechanical engineering, whether they plan to practice engineering or pursue advanced/graduate studies.

## Program Educational Objectives

Mechanical engineering graduates will be:

1. Technically competent in their mechanical engineering knowledge and skills in professional or advanced academic settings.
2. Committed to the engineering profession and to expanding their knowledge and skill set with increasing independence and responsibility.
3. Committed to professional conduct, ethical practices, and communicate effectively within a diverse multi-cultural environment.
4. Aware that their engineering expertise can be utilized to impact the local and global community.

## Student Outcomes

The Mechanical Engineering program uses the standard set of ABET, Inc. outcomes (1) through (7) as described above under Engineering.

## Mechanical Engineering

The mechanical engineer is considered the general practitioner in the engineering profession. Career opportunities exist in such fields as aerospace, automotive, computer, energy, machinery, manufacturing, and consulting firms. The curriculum is designed to provide the kind of broad education needed by "general practitioners." Juniors and seniors take course sequences in two areas: thermal/fluids/energy, and solid mechanics/ machine design/manufacturing. Both areas rely extensively on computer applications.
Seniors may specialize by choosing electives in: computer-aided design, computer-aided manufacturing, thermal/energy systems, or heating, ventilation and air conditioning.

Course work is complemented by comprehensive laboratories containing a wind tunnel, steam turbine, automotive engines, refrigeration systems, computer-controlled machine tools, stress and vibration analyzers, and computer-based data acquisition systems. Students also have access to PC laboratories and advanced workstations. In the senior
year, qualified students are encouraged to use this equipment in elective project courses. The curriculum prepares the student for professional employment and graduate study.

## Four-Year Program in Mechanical Engineering

The curriculum for the first year is common to all branches of engineering. In order to enable a student to test their interest in mechanical engineering, the student takes designated courses from the mechanical engineering course offerings in their sophomore year. The junior and senior years allow for concentrated studies in two areas: thermal/ fluids/energy, and solid mechanics/machine design/manufacturing. Both areas rely extensively on computer applications. Seniors may specialize by choosing electives in: design, manufacturing, thermal/energy systems, or heating, ventilation and air conditioning. The department offers an option in biomechanics for students interested in biomedical engineering. Please consult the option coordinator for details. A representative four-year program is shown below.

## Mechanical Engineering

## For Students Beginning Spring 2022 or earlier:

## First Year

Fall
ENGS 115
MATH $185^{1}$
CHEM 101/CHEM $103^{1}$
or PHYS 101/PHYS $191^{1}$
ENGL 110 or RELS 110
General Education Elective
Credits Spring Credits3 ENGS 1163
3 MATH $186^{1}$ ..... 3
CHEM 101/CHEM $103^{1}$
4 or PHYS 101/PHYS $191^{1}$ ..... 4
3 ENGL 110 or RELS 110 ..... 3
3 General Education Elective ..... 3
16 ..... 16
Second Year
Fall Credits Spring CreditsCHEM 102/CHEM $104^{1}$or PHYS 102/PHYS $192^{1}$
ENGS $205^{1}$
ENGS $206{ }^{1}$
MATH $285{ }^{1}$
MECH 211
ENGS 201 ..... 3
4 ENGS 202 ..... 0
3 ENGS 220 ..... 3
3 MECH 230 ..... 3
3 MECH 231 ..... 1
3 MATH $286{ }^{1}$ ..... 3
ENGL Elective ..... 3
16 ..... 16
Third Year
Fall
Credits SpringCredits
2 MECH 312 ..... 3
3 MECH 319 ..... 2
4 MECH 325 ..... 4
3 MECH 332 ..... 3

| RELS Catholic Studies or RELS Contemporary/Global Studies | 3 MECH 336 | 3 |
| :---: | :---: | :---: |
| Math/Science Elective ${ }^{2}$ | 3-4 MECH 337 | 0 |
|  | General Education Elective | 3 |
|  | 18-19 | 18 |
| Fourth Year |  |  |
| Fall | Credits Spring | Credits |
| MECH 401 | 2 MECH 402 | 2 |
| MECH 405 | 2 MECH 422 | 3 |
| MECH 411 | 3 Mechanical Engineering Elective ${ }^{2}$ | 3 |
| MECH 414 | 3 Mechanical Engineering Elective ${ }^{2}$ | 3 |
| Mechanical Engineering Elective ${ }^{2}$ | 3 RELS-Ethics Elective | 3 |
| Math/Science Elective | 3-4 General Education Elective | 3 |
|  | 16-17 | 17 |

## Total Credits: 133-135

1 Students must earn a grade of C(2.0) or better in calculus I, II, III, differential equations, chemistry and physics. Students must earn a grade of $C$ (2.0) or higher in ENGS 205 Introductory Thermodynamics and ENGS 206, as required for their program of study, before enrolling in any 300-level mechanical engineering courses.
2 MATH/SCI and MECH electives must be approved by the department chair.
3 A student may take an approved business course for one general education elective.

## For Students Beginning Fall 2022 or Later:

First Year
Fall
ENGS 115
MATH $185^{1}$
CHEM 101/CHEM $103^{1}$
or PHYS 101/PHYS $191^{1}$
ENGL 110 or RELS 110
General Education Elective
Credits Spring Credits
3 ENGS 116 ..... 3
3 MATH $186^{1}$ ..... 3
CHEM 101/CHEM $103^{1}$
4 or PHYS 101/PHYS $191^{1}$ ..... 4
3 ENGL 110 or RELS 110 ..... 3
3 General Education Elective ..... 3
1616
Second Year
Fall
Credits SpringCredits
ENGS 201 ..... 3
4 ENGS 202 ..... 0
3 ENGS 220 ..... 3
3 MECH 230 ..... 3
3 MECH 240 ..... 2
3 MATH $286^{1}$ ..... 3

|  |  | ENGL Elective | 3 |
| :---: | :---: | :---: | :---: |
| 16 |  |  | 17 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MECH 312 |  | 3 MECH 314 | 3 |
| MECH 318 |  | 3 MECH 319 | 2 |
| MECH 321 |  | 1 MECH 325 | 4 |
| MECH 323 |  | 4 MECH 330 | 2 |
| RELS Catholic Studies or RELS |  | 3 MECH 332 | 3 |
| Contemporary/Global Studies |  |  |  |
| Math/Science Elective ${ }^{2}$ |  | 4 General Education Elective | 3 |
|  | 17-1 |  | 17 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MECH 401 |  | 2 MECH 402 | 2 |
| MECH 411 |  | 3 MECH 414 | 3 |
| MECH 422 |  | 3 Mechanical Engineering Elective ${ }^{2}$ | 3 |
| MECH 439 |  | 3 Mechanical Engineering Elective ${ }^{2}$ | 3 |
| MECH 440 |  | 0 Math/Science Elective ${ }^{2}$ | 3-4 |
| Mechanical Engineering Elective ${ }^{2}$ |  | 3 General Education Elective | 3 |
| RELS-Ethics Elective |  | 3 |  |
|  |  | 7 | 17-18 |
| Total Credits: 133-135 |  |  |  |
| Biomechanics Concentration |  |  |  |
| The Biomechanics concentration is designed to give students a competitive advantage in the biomedical industry. Biomechanical engineers combine medical and biological sciences with engineering principles to design and develop healthcare equipment, devices, computer systems, and software. The employment prospects in biomechanics is expected to be strong for the foreseeable future. |  |  |  |
| This five-course concentration covers topics in tissue engineering, the strength and structural behavior of biocompatible materials, and the application of solid and fluid mechanics to biological systems. To participate in the biomechanical concentration, students must earn an overall average GPA of 3.0 with no more than two grades lower than a B in any of the concentration courses. Incoming freshmen, transfers and current students may enroll at any time. Any Pre-Concentration student who, at any time, fails to meet all requirements concurrently will be no longer be permitted to participate in the concentration. |  |  |  |

## Concentration Requirements

Students accepted into the concentration should choose five courses. Two of the courses are selected from the following courses offered by the Biology Department:

| BIOL 207 | Anatomy and Physiology I 1,2 | 4 |
| :---: | :---: | :---: |
| BIOL 208 | Anatomy and Physiology II ${ }^{2}$ | 4 |
| BIOL 222 | Biology for Engineers ${ }^{2}$ | 3 |
| BIOL 441 | Cardiovascular Biology ${ }^{1}$ | 3 |

The other three courses are selected from the following Mechanical Engineering courses:
MECH 431 Structural Biomechanics 3
MECH 437 Biomechanical Instrumentation 3
MECH $450 \quad$ Intro to Tissue Engineering 3
MECH 451 An Intro to Biofluid Mechanics 3
MECG 531 Introduction to Biomechanics 3
MECG 536 Applied Biofluid Mechanics 3
MECG 631 Biomechanics Modeling and Applications 3
1 Preferred courses for the concentration.
2 This course has a required zero-credit laboratory course. This laboratory must also be taken in order to fulfill the concentration requirements. See the Biology Department catalog page for more information.

## Aerospace Concentration

The Aerospace concentration is designed to give students an introduction to aerospace science and technology. Aerospace engineers use engineering principles to design and develop aircraft and spacecraft, both manned and unmanned. The employment prospects in aerospace is expected to be strong for the foreseeable future.

This five-course concentration covers topics in the overally design of aircraft and spacecraft, the dynamics of flight, the design of aerospace structures, and the application of fluid mechanics to aerospace systems. To participate in the aerospace concentration, students must earn an overall average GPA of 3.0 with no more than two grades lower than a B in any of the concentration courses. Incoming freshmen, transfers and current students may enroll at any time. Any Pre-Concentration student who, at any time, fails to meet all requirements concurrently will be no longer be permitted to participate in the concentration.

## Concentration Requirements

Students accepted into the concentration should choose five courses. Two of the courses are selected from the following courses offered by the Mathematics Department. Another suitable course may be substituted by the Mechanical Engineering Chairperson as the need arises:

| MATH 372 | Linear Algebra I | 3 |
| :--- | :--- | :--- |
| MATH 386 | Partial Differential Equations | 3 |
| MATH 490 | Complex Analysis | 3 |

The other three courses are selected from the following Mechanical Engineering courses. One elective course not on this list may be substituted upon approval of the Mechanical Engineering Department Chairperson:
MECG $516 \quad$ Turbomachinery ..... 3
MECG 528 Combustion Systems ..... 3
MECG 605 Flight Mechanics ..... 3
MECG 606 Design of Aerospace Structures ..... 3
MECG 608 Introduction to Aerodynamics ..... 3
MECG $701 \quad$ Viscous Flow Theory ..... 3
MECG 702 Compressible Flow ..... 3
MECG 704 Computational Fluid Mechanics ..... 3

## Engineering Science

Dr. Tim J. Ward, P.E.
Dean of Engineering
Engineering sciences are the bridge between the basic sciences and mathematics and applied engineering design. Courses include those fundamental to all engineering, such as statics, dynamics, mechanics, thermodynamics, materials, and electrical systems. The courses also include specialty topics related to professional development.

# Department of Air and Space Studies Department of Air \& Space Studies (DAAS) 


#### Abstract

About Air \& Space Studies The Department of Air and Space Studies is focused on developing the next generation of leaders through a comprehensive 4-year undergraduate program resulting in a minor for participating students. The minor in Air and Space Studies focuses on the study of air and space power history, ethical leadership, and officership. In the current geopolitical climate, the modern Air Force \& Space Force require officer-scholars to lead in unique and creative ways in order to achieve goals and problem-solve. This program emphasizes 21st century leadership and communication techniques to prepare students to lead modern groups and organizations.


## About Air Force ROTC

Air Force Reserve Officer Training Corps (ROTC) is an additional and separate program run by the department. Conducted at over 1000 colleges and universities throughout the United States, AFROTC trains men and women pursuing a 4-year degree to become commissioned officers in the U.S. Air Force and U. S. Space Force. Most graduates who enter the Air Force or Space Force through ROTC are assigned positions consistent with their academic major. Others, who wish to do so, may qualify to become pilots and navigators. Men and women who complete graduation requirements for their major and ROTC, receive an officer's commission becoming active duty second lieutenants in the U.S. Air and Space Force. Additionally, officers who qualify may complete graduate studies prior to beginning their military duties. While Air Force ROTC is taught at Manhattan College in Riverdale, students from 34 associated consortium schools participate in the program attending college in the Greater New York area at qualified consortium locations.

## Our Programs

## Minor in Air \& Space Studies

The minor in Air and Space Studies is offered to any Manhattan College undergraduate student completing the full 16 credit hours. The minor not only prepares students with a comprehensive understanding of leadership and military service, but provides any student the opportunity to study in-depth one of our country's instruments of power, the United States military. In addition to studying Air Force and Space Force organizations, missions, and operations, the student will gain a broad perspective of the moral dimensions of the military profession. By studying the history of all DoD services and completing an ethical leadership and national security course, undergraduates will comprehend the emphasis on the key elements of leadership required in the profession of arms. All DAAS courses are conducted at Manhattan College on Fridays. Completion of the minor does not fulfill all commissioning requirements.

## Academic Course of Study for the Minor

DAAS 101 Heritage \& Values I ..... 1
DAAS 111 Heritage and Values II ..... 1
DAAS 201 Team and Leadership Fundamentals I ..... 1
DAAS 211 Team and Leadership Fundamentals II ..... 1
DAAS 301 Leading People and Effective Communication ..... 3
DAAS 311 Leading People and Effective Communication II ..... 3
DAAS 401 National Security/Commissioning Preparation I ..... 3
DAAS 411 National Security/Commissioning Preparation II ..... 3
Total Credits ..... 16

## AFROTC Classes

The course content for students participating in AFROTC consists of two parts: (1) academic class and (2) leadership lab class (LLAB). The academic classes are completed with the student's peer group (ex. freshman, sophomore, junior, senior); all lower-division courses are one credit hour and upper-division courses are three credit hours. The LLAB portion brings all four-year groups together where students practice a wide array of activities to enhance leadership skills (ex. drill and ceremonies, group leadership projects, and physical fitness). LLAB is a 1-credit hour. Anyone interested in the military, leadership, government, or national security issues is encouraged to register for the academic classes. Students who chose to be active cadets pursuing a commission are required to attend their respective academic class in addition to LLAB.AF

## AFROTC Leadership Laboratory Classes

The Leadership Laboratory is a cadet-centered activity held in conjunction with all courses listed above and required for all Air Force ROTC cadets. It provides leadership and followership training experiences that will improve a cadet's ability to perform as an Air Force or Space Force officer.

| DAAS 102 | Leadership Lab 100 I | 1 |
| :--- | :--- | :--- |
| DAAS 112 | Leadership Lab 100 II | 1 |
| DAAS 202 | Leadership Lab 200 I | 1 |
| DAAS 212 | Leadership Lab 200 II | 1 |
| DAAS 302 | Leadership Lab 300 I | 1 |
| DAAS 312 | Leadership Lab 300 II | 1 |
| DAAS 402 | Leadership Lab 400 I | 1 |
| DAAS 412 | Leadership Lab 400 II | 1 |

## Scholarships

Highly qualified freshmen and sophomores enrolled as cadets in the AFROTC program can compete nationally for the In-College Scholarship Program. Express Scholarships may be available to students pursuing degrees the Air Force deems "critical" (Engineering and Foreign Languages). Scholarships cover tuition and most fees, $\$ 900$ annually for textbooks, and include a monthly stipend (\$300-\$500). For High School seniors, fouryear scholarships are available through www.afrotc.com (http://www.afrotc.com/) and applications are due by February 1 each year.

## Advising

For more information about the minor in Air \& Space Studies visit our faculty office located in Leo Engineering Bldg room 246. For further information about Air Force ROTC or about the associated scholarship programs, log on to www.afrotc.com (http://
www.afrotc.com/), email us at afrotc@manhattan.edu, or contact our office at (718) 862-7901.

## School of Health Professions

School of Health Professions<br>Shelley Johnson, Ed. D.<br>Dean of Health Professions

## Building Foundations for Lifelong Wellness, Healing and Care

The School of Health Professions builds on and adheres to Manhattan College's Lasallian (https://manhattan.edu/about/lasallian-catholic.php) traditions and strives to promote faith, respect for all, quality education, fostering inclusive community, and working toward social justice. By offering programs such as counseling, \& health care informatics to exercise science, physical education, and public health, we develop a student's spirit, mind, and body leading to preparing them for transformative careers in the health professions and impacting societies. Our professors promote excellence in scholarship and teaching, respect for individual dignity and a commitment to social justice through hands-on service.

## Field Experience

The School of Health Professions offers rich and varied field experiences. Students will be the center of high-demand areas of study and work as they prepare to enter their respective fields as qualified health professionals with superior skills and leadership abilities. Our health professions students spend a semester in a clinical internship at a local hospital or institution. Others conduct research or join service trips. Several health specialties including nursing have experienced severe shortages in recent years, and the enrollment into the School of Health Professions will help support employers attempting to keep up with demand.

Here at Manhattan College, we believe a successful future is the product of an artfully customized education. With us it's personal-we craft each student's experience to meet their specific needs, offering more one-on-one contact and support than most other colleges.

The School of Health Professions provides the service of an academic advisor, as well as faculty advisors. Not sure which major to choose? No problem. Your academic advisor will be able to:

- Provide expert advice, tailored specifically for your goals.
- Assist with major selection and course scheduling
- Offer helpful advice on double majors, minors and any other program of study

Having a dedicated academic advisor will help you get the most out of the many opportunities available for you at the College, and help you feel in control of your education and the future.

Students in the Kinesiology and the Radiological and Health Professions departments have two advisors:

- a department faculty advisor
- a School of Health Professions academic advisor

Students work directly with their program directors for advising.
School of Health Professions Academic Advisor:
Loretta Wilkins
Miguel Hall 205
718-862-7291
Loretta.wilkins@manhattan.edu

# Kinesiology 

Dr. Shawn Ladda
Chair of the Department
Dr. Lisa Toscano
Associate Chair of the Department
TBD
Program Director - Public Health

## The Kinesiology Curriculum <br> Physical Education, Exercise Science, and Public Health

Emphasizing the positive impact of physical activity on health, society, and quality of life, the mission of the Department of Kinesiology is to create and disseminate knowledge, engage in community service, and prepare caring and competent physical education, exercise science, and public health professionals. Putting theory into practice, all students in the department gain real-world understanding through a variety of service, research, practicum, internship and student-teaching experiences. With this, every effort is made in the professional courses to correlate the theory of general education as it applies to the Physical Education Teacher K-12, Exercise Science, and Public Health majors.

The curriculum provides a strong and relevant foundation for continued study in graduate schools in such areas as physical therapy, occupational therapy, athletic training, strength \& conditioning, physical education, health education, public health, special education, adapted physical activity, curriculum and instruction, supervision and administration, sport and exercise psychology, exercise physiology, sports medicine, physician assistant, and other education/health-related professions.

Kinesiology students may choose one of three majors: Physical Education Teacher K-12, Exercise Science, or Public Health.

## Physical Education Teacher K-12

The mission of the Physical Education program is to create and disseminate knowledge, engage in community service, and prepare caring and competent physical education teaching professionals. The Physical Education Teacher K-12 major is designed to specifically prepare teachers and leaders for elementary and secondary schools. Physical education majors will develop the knowledge and skills necessary for success on state certification exams, in professional practice teaching K-12 physical education, and during post-graduate work associated with the physical education discipline including physical education, health education, special education, adapted physical activity, curriculum and instruction, supervision and administration, and other education related fields. The program is approved by the New York State Education Department (NYSED). Program completion leads to NYSED teaching certification in Physical Education K-12. NYSED
has certification reciprocity agreements with many other states. The program is also accredited by the Association for Advancing Quality in Educator Preparation (AAQEP).

## Physical Education - Program Learning Goals

1. Content Knowledge. Students will be able to demonstrate an understanding of the underlying scientific foundations of physical education and its applications to planning, teaching, and evaluation. This includes critically evaluating scholarly work related to exercise science and demonstrating the ability to make practical applications based on this research.
2. Pedagogical Knowledge and Skills. Students will be able to demonstrate pedagogical knowledge in the physical education discipline and the skills to apply this knowledge to positively impact all learners. With this, students will be able to plan, implement, and assess a variety of developmentally appropriate psychomotor, cognitive, and affective learning experiences aligned with professional standards to address the diverse needs of all learners.
3. Cultural, Historical, and Philosophical Dimensions. Students will be able to demonstrate an understanding of the cultural, historical, and philosophical dimensions of physical education and its applications to planning, professional practice, and evaluation. Within this, and consistent with our Lasallian mission, students will be able to demonstrate the appreciation of cultural diversity along with the ability to make ethical decisions based on this knowledge.
4. Physical Activity in Health, Wellness, and Quality of Life. Students will be able to demonstrate an understanding of the relationship between physical activity participation and health, wellness, and quality of life.
5. Professional Responsibility. Students will be able to demonstrate professional responsibility and the dispositions to grow professionally consistent with state and national organizations associated with the physical education teaching discipline. This goal includes demonstrating physical literacy with knowledge, skills, and competency in movement performance and health enhancing fitness as described in National Standards \& Grade-Level Outcomes for K-12 Physical Education.

## Minor in Adapted Physical Education

All physical education and exercise science majors are eligible for a minor in Adapted Physical Education upon completion of these courses with a grade of $C$ or higher in each course.

| KIN 423 | Adapted Physical Activity | 3 |
| :--- | :--- | :--- |
| KIN 424 | Adapted Exercise \& Sport | 3 |
| KIN 421 | Therapeutic Recreation | 2 |
| EDUC 301 | Nature and Needs of Students with Disabilities | 3 |
| EDUC 408 | Management of Behavior and Learning for At-Risk and <br> Disabled | 3 |

## Exercise Science

The mission of the Exercise Science program is to create and disseminate knowledge, engage in community service, and prepare caring and competent exercise science professionals. Exercise science majors will develop the knowledge and skills necessary for success in professional positions and post-graduate work associated with the exercise science and kinesiology disciplines. The program provides a solid foundation for continued graduate school study in physical therapy, occupational therapy, exercise physiology, athletic training, adapted physical activity, sport and exercise psychology, public health, health promotion/community health, sports medicine, and other health-related/medical professions. Exercise Science courses also contribute to the requirements for certification as an Exercise Specialist from the American College of Sports Medicine and/or as a Certified Strength and Conditioning Specialist from the National Strength and Conditioning Association.

## Exercise Science - Program Learning Goals

1. Scientific Foundations of Exercise Science. Students will be able to demonstrate an understanding of the underlying scientific foundations of exercise science and its applications to planning, professional practice, and evaluation. This includes critically evaluating scholarly work related to exercise science and demonstrating the ability to make practical applications based on this research.
2. Observe, Analyze, and Evaluate Human Movement. Students will be able to observe, analyze, and evaluate human movement and apply appropriate instructional intervention. With this, students will demonstrate the ability to plan, implement, and assess a variety of developmentally appropriate physical activity experiences.
3. Cultural, Historical, and Philosophical Dimensions. Students will be able to demonstrate an understanding of the cultural, historical, and philosophical dimensions of exercise science and its applications to planning, professional practice, and evaluation. Within this, and consistent with our Lasallian mission, students will be able to demonstrate the appreciation of cultural diversity along with the ability to make ethical decisions based on this knowledge.
4. Physical Activity in Health, Wellness, and Quality of Life. Students will be able to demonstrate an understanding of the relationship between physical activity participation and health, wellness, and quality of life.
5. Professional Responsibility. Student will be able to demonstrate professional behavior consistent with the exercise science discipline including an adherence to professional ethics and service to others; and an appreciation and commitment to physical activity practice.

## Preparation for Graduate Study in Physical Therapy, Occupational Therapy, and Other Health Professions

Students preparing for professional school admission in physical therapy, occupational therapy, and other health professions should major in Exercise Science and plan courses in consultation with their Kinesiology faculty advisor and/or the Chair of Kinesiology. Prerequisites for graduate study may include, but may not be restricted to, the following elective courses:

| MATH 155 | Calculus for the Life Sciences I (First Year) | 3 |
| :---: | :---: | :---: |
| or MATH 100 | Pre-Calculus Mathematics |  |
| MATH 230 | Elementary Statistics (First Year) | 3 |
| PHYS 105 | Principles of Physics I (Second Year - Fall) | 4 |
| PHYS 195 | Principles of Physics I Lab | 0 |
| PHYS 106 | Principles of Physics II (Second Year - Spring) | 4 |
| PHYS 196 | Principles of Physics II Lab | 0 |
| CHEM 101 | General Chemistry I (Third Year - Fall) | 3 |
| CHEM 103 | General Chemistry Laboratory I |  |
| CHEM 102 | General Chemistry II (Third Year - Spring) | 3 |
| CHEM 104 | General Chemistry Laboratory II | 1 |
| PSYC 421 | Psychopathology (Fourth Year - substitute for KIN 303) | 3 |
| Total Credits |  | 25 |
| Exercise Science majors interested in the premedical professions (e.g., Physician's Assistant, Sports Medicine) are advised to substitute Principles of Biology (BIOL 115-118) with General Biology (BIOL 111-114) and register in BIOL 111/BIOL 113 First Year - Fall and BIOL 112/BIOL 114 First Year - Spring. |  |  |
| Minor in Psychology |  |  |
| Exercise Science majors may earn a minor in Psychology by completing 15 credits in Psychology courses planned in consultation with and approval of the Chair of the Psychology. In addition to Introduction to Psychology I (PSYC 203), suggested courses most aligned with the Exercise Science major include: Motivation \& Emotion (PSYC 333), Lifespan Development (PSYC 334), Health Psychology (PSYC 341), Abnormal Psychology (PSYC 421), Physiological Psychology (PSYC 435), and Sensation \& Perception (PSYC 467). |  |  |

PSYC 203 Introduction to Psychology 3
Additional credits in Psychology ** 12
Total Credits 15

* Approval of the Chair of the Psychology Department required.


## Minor in Business

Exercise Science majors may earn a minor in Business by completing 15 credits in Business courses with permission from the Assistant Dean of Education \& Health. The minor in Business requires the completion of the following course sequence:

ACCT 201 Principles of Accounting I 3
ECON 203 Microeconomics 3
MGMT 201 Introduction to Management (Economics Elective) 3
MKTG 201 Essentials of Marketing 3
Business Elective (with proper prerequisites) ..... 3
Total Credits ..... 15

## Minor in Biology

Exercise Science majors may earn a minor in Biology by completing 15 credits in Biology courses planned in consultation with and approval of the Chair of the Biology Department. Eight of these credits must be the General Biology sequence (BIOL 111-114). The remaining credits must be chosen from courses that satisfy Biology B.S. major requirements. Exercise Science majors interested in the Biology minor are advised to substitute Principles of Biology (BIOL 115-118) with General Biology (BIOL 111-114) and register in BIOL 111/BIOL 113 First Year - Fall and BIOL 112/BIOL 114 First Year Spring.

| BIOL 111 | General Biology I (First Year - Fall) | 4 |
| :--- | :--- | :--- |
| BIOL 113 | General Biology I Laboratory | 0 |
| BIOL 112 | General Biology II (First Year - Spring) | 4 |
| BIOL 114 | General Biology II Laboratory | 0 |
| Additional credits in Biology that satisfy Biology B.S. major requirements * | 7 |  |

Total Credits ..... 15

* Approval of the Chair of the Biology Department required.


## Public Health

The mission of the Public Health program is to educate students on the core principles of public health knowledge to address health outcomes of the population through equity, policy and action. Public Health majors will develop the knowledge and skills necessary for success in professional positions and post-graduate work associated with the public health disciplines. The program provides a solid foundation for continued graduate school study in public health, community health, environmental health, health care administration, biostatistics, epidemiology, health policy and management, health promotion, and other health-related professions.

## Public Health - Program Learning Goals

1. Historical and Theoretical Foundations. Students will acquire knowledge of the history of public health, epidemiology, biostatistics, environmental health sciences, management, social and behavioral sciences, and academic \& research ethics, and the ability to apply that knowledge for the assessment, promotion, and protection of human health.
2. Quantitative Tools and Evidence-Based Methods. Students will acquire knowledge of the appropriate quantitative tools and evidence-based methods to determine appropriate use of data to identify and address issues concerning population health and disease.
3. Determinants of Health. Students will acquire knowledge of determinants of health and their contribution to health disparities.

## Physical Education Teacher K-12 Major Requirements Physical Education - Curriculum/Courses

First Year

Fall
KIN 100
Credits Spring Credits
KIN 110
2 KIN 2292
3 RELS 110 ..... 3

KIN 246

2 SPCH 204 ..... 3

BIOL 103
BIOL 104
3 MATH 151 or MATH 2303

ENGL 110
0 Language3

3 KIN 121 ..... 3

Language 3
16

## Second Year

| Fall | Credits | Spring |
| :--- | :---: | ---: |
| KIN 213 | 3 KIN 101 | Credits |
| 2 |  |  |

BIOL $207 \quad 4$ KIN 217
BIOL 209
0 KIN 3372
3 BIOL 208 4
3 BIOL 2100
3 EDUC 2013
ART Elective 3
16

## Third Year

Fall Credits Spring Credits
KIN 113
KIN 306
2 KIN 309
3 KIN 3150
KIN 307
0 KIN 3053
KIN 331
2 KIN 413 3
KIN 423
3 KIN 4223
EDUC 301
3 EDUC 311
EDUC 408
3 EDUC 3603
Educating All Students (EAS)
Certification Exam upon
completion of EDUC 301, EDUC 408, KIN 213, \& KIN 305

| Fourth Year |  |  |
| :--- | :---: | ---: |
| Fall | Credits | Spring |
| KIN 418 | 2 KIN 209 | Credits |
| SOC 201 | 3 KIN 415 | 3 |
| ENGL Elect (Lit) | 3 KIN 416 | 3 |
| Rel Elect (300 level) | 3 KIN Elective | 2 |
| PHIL Elect | 3 Elective | 3 |
|  | Content Specialty Test (CST) |  |
|  | Certification Exam |  |

Total Credits: 125
Physical Education majors must achieve a grade of "C" or better in all KIN courses.

* School of Education \& Health students only; all others need permission from Kinesiology Department Chair.
** Permission from the Chair of the Department of Kinesiology is required to register for all majors other than Exercise Science and Physical Education Teacher Preparation.
*** Prerequisite KIN 213 \& KIN 305; Applicants for Supervised Practice Teaching must have senior status, at least a 2.75 index overall, a C or better in all KIN and 300 and 400 level BIOL courses, and meet standards established for the profession. Application deadlines for student Teaching, first Monday in March for Fall semester; first Monday in October for Spring semester.


## Criteria for Formal Admission to Teacher Education in Physical Education

1. Receive a grade of C+ or better in ENGL 110. Students who receive a grade of C or C- must take ENGL 210 as a follow-up to ENGL 110. Students who receive a grade of D or lower must retake ENGL 110 .
2. Successfully complete the Freshman and Sophomore Science Sequence, and MATH 230 or MATH 151 with a grade of " C " or better.
3. Successfully complete KIN 110 with a grade of "C" or better. SAVE and Child Abuse requirements are contained within this course.
4. Successfully complete the Kinesiology Majors Skills Camp (KIN 121) with a grade of "C" or better and a grade point average of 2.75 or better.
5. Successfully complete EDUC 201 and EDUC 202 with a grade of " C " or better and a grade point average of 2.75 or better.
6. Successfully complete KIN 213, KIN 217, and the Sophomore Skills Sequence with a grade of "C" or better and a grade point average of 2.75 or better.
7. Have both an overall Grade Point Average and academic concentration average of 2.75 or better with a " C " or better in all academic concentration coursework.
8. Receive a majority vote from Kinesiology faculty and exhibit professional behavior as defined by program faculty and stated on course syllabi.

Formal admission into the teacher education program. Students applying for formal admission into teacher education can receive one of three responses:

- Unconditional admittance into the program. If the student successfully meets all criteria he/she is formally admitted into the program and may proceed with the program of studies.
- Conditional admittance into the program. If the student has met most of the criteria and will be eligible for unconditional admittance by the end of the following semester (fifth semester) he/she may continue in the program and enroll in kinesiology or education courses for that semester. At the end of the conditional semester, the student automatically advances to unconditional admittance if all criteria are met. If the conditions are not met, the student will not be allowed to take additional upper division kinesiology or education courses until unconditional status is achieved. The student must reapply if unconditional status is not met by the end of the conditional semester.
- Denied for admittance into the program. If a student has a number of deficiencies which will take longer than one semester to correct, his/her application will be denied. The student will not be allowed to continue with kinesiology or education classes until conditional admittance is achieved. When conditional admittance status is achieved, the student must meet the criteria listed under conditional admittance. The student in this category must reapply for admission to teacher education in physical education when he/she can document having met the criteria for admission.


## Exercise Science Major Requirements Exercise Science - Curriculum/Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Credits | Spring | Credits |
| BIOL 131 |  | 4 BIOL 132 | 4 |
| BIOL 133 |  | 0 BIOL 134 | 0 |
| KIN 110 |  | 3 KIN 121 | 3 |
| KIN 246 |  | 2 ENGL 110 | 3 |
| CMPT 155 |  | 3 RELS 110 | 3 |
| SOC 201 |  | 3 Elective | 3 |
|  |  | 5 | 16 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| BIOL 207 |  | 4 KIN 217 | 3 |
| BIOL 209 |  | 0 BIOL 208 | 4 |
| KIN 102 |  | 2 BIOL 210 | 0 |
| KIN 231 |  | 2 PSYC 203 | 3 |
| SPCH 204 |  | 3 REL Elect (200 level) | 3 |


| Elective | 3 Elective |  |
| :--- | :---: | ---: |
| MATH 151 or MATH 230 | 3 | 3 |
|  | 17 | 16 |
| Third Year | Credits | Spring |
| Fall | 3 KIN 309 |  |
| BIOL 221 | 3 KIN 315 | Credits |
| KIN 306 | 0 KIN 318 | 2 |
| KIN 307 | 3 KIN 413 | 0 |
| KIN 430 | 2 KIN 419 | 2 |
| KIN Elective | 3 KIN Elective | 3 |
| ENGL Elect (Lit) | 3 Electives | 2 |
| Elective | $\mathbf{1 7}$ | 2 |
|  |  | 6 |
| Fourth Year | Credits | Spring |
| Fall | 1 KIN 414 | $\mathbf{1 7}$ |
| KIN 209 | 3 KIN 424 | 2 |
| KIN 303 or PSYC 421 | 2 KIN 443 | 3 |
| KIN 418 | 2 Rel Elect (300 level) | 3 |
| KIN 421 | 2 KIN Elective | 2 |
| KIN 445 428 | 3 | 3 |

Total Credits: 124
Exercise Science majors must achieve a grade of "C" or better in all KIN courses.

* School of Education \& Health students only; all others need permission from Kinesiology Department Chair.
** Permission from the Chair of the Department of Kinesiology is required to register for all majors other than Exercise Science and Physical Education Teacher Preparation.
*** Applicants for Professional Practicum must have senior status, an overall index of at least 2.75, and meet standards established for the profession. Applicants must consult with Department Chair a full semester before placement. Placement interviews may be required. Practicum assignment must be confirmed the semester before the practicum experience.


## Public Health Major Requirements <br> Health Care Services Administration Concentration Curriculum/Courses

First Year
Fall Credits Spring Credits

BIOL 131
4 BIOL 132
4
BIOL 133
ENGL 110
MATH 151
PSYC 203
0 BIOL 134 0
3 CMPT 1553
3 KIN 1103
3 SOC 201 3
RELS 110
3 ENGL Elect 3
16
Second Year
Fall
PHP 206
Credits Spring
Credits
3 PHP 205
3
BIOL 207
4 BIOL $208 \quad 4$
ECON 203
3 BIOL 2100
BIOL 209
0 MGMT 2013
BIOL 221
3 SPCH 2043
MATH 230
3 REL Elect (200 level) 3
16
Third Year
Fall
Credits Spring
Credits
PHP 201
3 PHP 3923
PHP 318
3 PHP 427 3
PHP 410
3 KIN 4303
PHP 412
3 SOC 204 3
PHP 420
3 RHS 471 3
15
15

## Fourth Year

Fall Credits Spring Credits
PHP 418
3 PHP 425
KIN 209
1 MGMT 320
PSYC 374
3 RHS 4813
RELS 373
3 Elective
Elective
3

## Community Health Concentration - Curriculum/Courses

First Year
Fall
PHP 206
BIOL 131
BIOL 133
ENGL 110
RELS 110
MATH 151
Credits Spring
Credits
3 BIOL $132 \quad 4$
4 BIOL 1340
0 CMPT 1553
3 KIN 1103
3 SOC 201 3
3 ENGL Elect 3
16
Second Year
Fall Credits Spring Credits

PHP 318
3 PHP 2053
BIOL 207
4 BIOL 208 4
BIOL 20900 BIOL 2100
BIOL 221
PSYC 203
3 KIN 3043
3 SPCH 2043
MATH $230 \quad 3$ REL Elect (200 level) 3
$16 \quad 16$
Third Year
Fall Credits Spring Credits
PHP 201
3 PHP 392
3
PHP 302
3 PHP 4103
PHP 420
3 PHP 412
KIN 209
1 PHP 427 3
RHS 481
3 SOC 2043
Elective
3
16
Fourth Year
Fall
Credits Spring
Credits
PHP 418
3 PHP 416
PSYC 374
3 PHP 4254
RELS 373 3 KIN 4303

Elective
3 Elective
12
Total Credits: 120
Public Health majors must achieve a grade of "C" or better in all PHP courses.

# Radiological \& Health Professions <br> Program Directors 

Angela Oliveria
Radiological Therapy Technology
Heidy Palacios
Nuclear Medicine Technology

## Nuclear Medicine and Radiation Therapy Technology

The Bachelor of Science degree program in Radiological and Health Professions is a four year program conducted in affiliation with regional hospitals and medical centers. Students may choose a major in Nuclear Medicine Technology (NMT) or Radiation Therapy Technology (RTT). These programs are for students who have no previous experience in Nuclear Medicine or Radiation Therapy and wish to prepare themselves for a career either field. To satisfy the degree requirements of these programs, students must fulfill all academic and clinical hours specified by the national and state agencies for professional certification, registration, and licensing.

This program also includes a concentration in Health Care Administration, which gives the student an in depth understanding of the health care industry.

## Program Learning Goals

## Nuclear Medicine Technology

Students who complete this program will:

- Be academically competent as entry-level nuclear medicine technologists.
- Be clinically competent as entry-level nuclear medicine technologists.
- Demonstrate communication skills of a competent entry-level nuclear medicine technologist.
- Develop the critical thinking skills necessary to perform independently within the nuclear medicine technologist's scope of practice.
- Develop professionalism and ethical and moral practices congruent with the profession's code of ethics and pursue lifelong learning.


## Program Learning Goals

## Radiation Therapy Technology

Students who complete this program will:

- Be academically competent as entry-level radiation therapists.
- Be clinically competent as entry-level radiation therapists.
- Demonstrate communication skills of a competent entry-level radiation therapist.
- Develop the critical thinking skills necessary to perform independently within the radiation therapists' scope of practice.
- Develop professionalism and ethical and moral practices congruent with the profession's code of ethics and pursue lifelong learning.


## Program Requirements

## Bachelor of Science in Radiological and Health Professions (Nuclear Medicine Technology)

This is a full-time program, with daytime and evening course requirements, designed for students who have no previous experience in Nuclear Medicine Technology and wish to prepare themselves for a career in this field.
First Year - Fall Semester
ENGL 110 First Year Composition 3
RELS 110 The Nature and Experience of Religion 3
BIOL 103 Introduction to Biology 3
BIOL 104 Introduction to Biology Laboratory 0
MATH 100 Pre-Calculus Mathematics 3
PHYS $105 \quad$ Principles of Physics I 4
PHYS $195 \quad$ Principles of Physics I Lab 0
First Year - Spring Semester
English Elective 3
PSYC 203 Introduction to Psychology 3
CMPT 155 Computer Applications for Life Sciences 3
MATH 230 Elementary Statistics 3
PHYS $106 \quad$ Principles of Physics II 4
PHYS $196 \quad$ Principles of Physics II Lab 0
Second Year - Fall Semester
BIOL 207 Anatomy and Physiology I 4
BIOL 209 Anatomy And Physiology Lab I 0
CHEM $100 \quad$ Foundations of Chemistry 3
RHS 315 Radiation Physics 3
RHS 220 US Health Care Systems 3
RHS 205 Concepts Allied Health 3
Second Year - Spring Semester
BIOL 208 Anatomy and Physiology II 4
BIOL 210 Anatomy \& Physiology II Lab 0
PHIL 201 Ethics 3
RHS 320 Radiation Detection and Protection 3
General Elective ..... 3
Religious Studies Elective ..... 3
Third Year - Fall Semester
RHS 317 Radiation Biology ..... 3
RHS 331 Nuclear Medicine I ..... 3
General Elective ..... 3
RHS 326 Cross-Sectional Anatomy ..... 3
KIN 209 1st Aid/Emergencies/CPR ..... 1
Third Year - Spring Semester
RHS 332 Nuclear Medicine II ..... 3
RHS 301 Nuclear Medicine Instrumentation ..... 3
RHS 340 Nuclear Medicine Internship I ..... 2
RHS 275 Patient Care Procedures ..... 3
RHS 404 CT Imaging ..... 3
Summer
RHS 341 Nuclear Medicine Internship II ..... 4
Fourth Year - Fall Semester
RHS $450 \quad$ Nuclear Medicine Internship III ..... 2
RHS 442 Nuclear Medicine III ..... 3
RHS 420 Ethics in Healthcare ..... 3
RHS 412 Health Research Methods ..... 3
RHS 448 CT Procedures ..... 3
Fourth Year - Spring Semester
RHS $451 \quad$ Nuclear Medicine Internship IV ..... 2
RHS 460 Nuclear Medicine Colloquium ..... 1
RHS 472 Financial Management in Healthcare ..... 3
RHS 481 Legal Aspects in Health Care ..... 3
RELS 373 Death as a Fact of Life ..... 3
RHS 471 Healthcare Organization and Management ..... 3
Total Credits for Graduation: ..... 124

## Program Requirements

## Bachelor of Science in Radiological and Health Professions (Radiation Therapy Technology)

> This is a full-time program, with daytime and evening course requirements, designed for students who have no previous experience in Radiation Therapy Technology and wish to prepare themselves for a career in this field.

First Year - Fall Semester

| ENGL 110 | First Year Composition | 3 |
| :--- | :--- | :--- |
| RELS 110 | The Nature and Experience of Religion | 3 |
| BIOL 103 | Introduction to Biology | 3 |
| BIOL 104 | Introduction to Biology Laboratory | 0 |
| MATH 100 | Pre-Calculus Mathematics | 3 |
| PHYS 105 | Principles of Physics I | 4 |
| PHYS 195 | Principles of Physics I Lab | 0 |

First Year - Spring Semester
English Elective 3
PSYC 203 Introduction to Psychology 3
CMPT 155 Computer Applications for Life Sciences 3
MATH 230 Elementary Statistics 3
PHYS $106 \quad$ Principles of Physics II 4
PHYS $196 \quad$ Principles of Physics II Lab 0
Second Year - Fall Semester
BIOL 207 Anatomy and Physiology I 4
BIOL 209 Anatomy And Physiology Lab I 0
CHEM 100 Foundations of Chemistry 3
RHS 205 Concepts Allied Health 3
RHS 315 Radiation Physics 3
KIN 209 1st Aid/Emergencies/CPR 1
Second Year - Spring Semester
BIOL 208 Anatomy and Physiology II 4
BIOL 210 Anatomy \& Physiology II Lab 0
PHIL 201 Ethics 3
RHS 320 Radiation Detection and Protection 3
RHS 275 Patient Care Procedures 3
RHS 276 Radiation Therapy I 3
Summer
RHS 280 Radiation Therapy Internship I ..... 4
Third Year - Fall Semester
RHS 326 Cross-Sectional Anatomy ..... 3
RHS 355 Radiation Therapy II ..... 3
RHS 357 Radiation Therapy Instrumentation ..... 3
RHS 360 Radiation Therapy Internship II ..... 2
RHS 220 US Health Care Systems ..... 3
Third Year - Spring Semester
RHS 356 Radiation Therapy III ..... 3
RHS 358 Treatment Planning ..... 3
RHS 361 Radiation Therapy Internship III ..... 2
RHS 404 CT Imaging ..... 3
RHS 471 Healthcare Organization and Management ..... 3
Summer
RHS 362 Radiation Therapy Internship IV ..... 4
Fourth Year - Fall Semester
RHS 435 Radiation Therapy Internship V ..... 2
RHS 317 Radiation Biology ..... 3
RHS 420 Ethics in Healthcare ..... 3
RHS 412 Health Research Methods ..... 3
Religious Studies Elective ..... 3
Fourth Year - Spring Semester
RHS 436 Radiation Therapy Internship VI ..... 2
RHS 440 Radiation Therapy Colloquium ..... 1
RHS 481 Legal Aspects in Health Care ..... 3
RHS 472 Financial Management in Healthcare ..... 3
General Elective ..... 3
RELS 373 Death as a Fact of Life ..... 3
Total credits for Graduation: ..... 127
Concentration Health Care AdministrationThe degree programs include a concentration in healthcare administration. The coursesfor this concentration are:
RHS 220 US Health Care Systems ..... 3
RHS 471 Healthcare Organization and Management ..... 3
RHS 472 Financial Management in Healthcare ..... 3

## Program Requirements

Admission to and continuation in the Clinical Internship courses in NMT and RTT require an overall Cumulative index of 2.75 and an overall Major Academic course index of 2.75 (see list of Major Academic courses below).

Admission to the Major Academic courses, that are pre-requisites or co-requisites to clinical internships, in the NMT and RTT programs requires an overall Cumulative index of 2.75 and a Major Academic course index of 2.75 (see list of Major Academic courses that are pre-requisites or co-requisites for clinical internship courses, they are marked with an * below). If a student is unable to be admitted into the Major Academic courses because the indexes are lower than 2.75 , they will be given one academic year to meet this requirement. Failure to meet this requirement within one academic year will result in dismissal from the program.

A grade of $C$ or better is required in the Major Academic Courses (see list of Major Academic Courses below) for admission to sequential Major Academic Courses for which the course is a prerequisite. The student will be given one opportunity to repeat the course and must earn a grade of C or better before entering sequential Major Academic Courses for which the course is a prerequisite. If a student needs to repeat more than two major academic courses, they will be dismissed from the program.

A grade of $C$ or better is required in the Major Academic courses (see list of Major Academic courses below) for admission or continuation in Clinical Internship courses. The student will be given one opportunity to repeat the course and must earn a grade of C or better before entering or continuing in Clinical Internship courses. (Please note that the Major Academic courses index must average to a 2.75 even though a few $C$ grades are obtained in the Major Academic courses).

A grade of $C$ or better is required in the Clinical Internship courses (see list of Clinical Internship courses below) to continue in Clinical Internship courses. The student must earn a grade of $C$ or better the next regular time that specific Clinical Internship course is offered before continuing in Clinical Internship courses.

If a grade of F is obtained in any Clinical Internship course, continuation in the Clinical Internship courses is not allowed.

Admission to the Clinical Internship courses in NMT and RTT is based upon the Faculty and Program Director's evaluation of the student's attendance, punctuality, maturity, attitude, motivation, responsibility, interpersonal skills, attentiveness to detail, pleasantness and ability to perform the duties of a nuclear medicine or radiation therapy technologist.

Continuation in the Clinical Internship courses in NMT and RTT is based upon the successful completion of the Overall and Clinical Evaluations given the student by the Clinical Supervisor at the Clinical Affiliate and the ongoing evaluation by the Faculty and Program Director of the student's attendance, punctuality, maturity, attitude, motivation,
responsibility, interpersonal skills, attentiveness to detail, pleasantness and ability to perform the duties of a nuclear medicine or radiation therapy technologist.

Due to the serious nature of the duties performed by the student in the Clinical Internship courses, the student is granted one opportunity at completing the Clinical Internship. If the student is removed from the clinical affiliate site by the clinical supervisor for valid reasons, the student will receive an F grade for that Clinical Internship course, the student will not be re-assigned to another clinical affiliate site and will not be eligible to enroll in clinical internship courses.

## The NMT major academic courses include:

RHS 205 Concepts Allied Health 3
RHS 275 Patient Care Procedures 3
RHS $301 \quad$ Nuclear Medicine Instrumentation 3
RHS 315 Radiation Physics 3
RHS 317 Radiation Biology 3
RHS 320 Radiation Detection and Protection 3
RHS 326 Cross-Sectional Anatomy 3
RHS 331 Nuclear Medicine I 3
RHS 332 Nuclear Medicine II 3
RHS 404 CT Imaging 3
RHS 412 Health Research Methods 3
RHS $442 \quad$ Nuclear Medicine III 3
RHS 448 CT Procedures 3
RHS $460 \quad$ Nuclear Medicine Colloquium 1
BIOL 207 Anatomy and Physiology I 4
BIOL 208 Anatomy and Physiology II 4
The RTT major academic courses include:
RHS 205 Concepts Allied Health 3
RHS 275 Patient Care Procedures 3
RHS 276 Radiation Therapy I 3
RHS 315 Radiation Physics 3
RHS 317 Radiation Biology 3
RHS 320 Radiation Detection and Protection 3
RHS 326 Cross-Sectional Anatomy 3
RHS 355 Radiation Therapy II 3
RHS 356 Radiation Therapy III 3
RHS 357 Radiation Therapy Instrumentation 3
RHS 358 Treatment Planning 3
RHS 404 CT Imaging 3
RHS 412 Health Research Methods 3
RHS 440 Radiation Therapy Colloquium 1
BIOL 207 Anatomy and Physiology I ..... 4
BIOL 208 Anatomy and Physiology II ..... 4
The NMT clinical internship courses include:
RHS $340 \quad$ Nuclear Medicine Internship I ..... 2
RHS 341 Nuclear Medicine Internship II ..... 4
RHS 450 Nuclear Medicine Internship III ..... 2
RHS 451 Nuclear Medicine Internship IV ..... 2
The RTT clinical internship courses include:
RHS 280 Radiation Therapy Internship I ..... 4
RHS 360 Radiation Therapy Internship II ..... 2
RHS 361 Radiation Therapy Internship III ..... 2
RHS 362 Radiation Therapy Internship IV ..... 4
RHS 435 Radiation Therapy Internship V ..... 2
RHS 436 Radiation Therapy Internship VI ..... 2

## Registry Examination

Upon completion of all the requirements for the Bachelor of Science in Radiological and Health Professions, students majoring in Nuclear Medicine Technology or Radiation Therapy Technology will be eligible to sit for the written examination of the American Registry of Radiologic Technologists.

Approval for these examinations will be granted only after a student has met all responsibilities for successful completion of the program.

## Certificate Program in Nuclear Medicine Technology

The certificate program is for students who already have a bachelor's degree and are looking to transition into the field of nuclear medicine technology. Students must have completed the prerequisite courses as outlined below*. The certificate program takes approximately 21 months to complete. A full-time internship is required during the summer session.

First Year - Fall Semester
RHS 315 Radiation Physics 3
RHS 205 Concepts Allied Health 3
RHS $331 \quad$ Nuclear Medicine I 3
KIN 209 1st Aid/Emergencies/CPR 1
First Year - Spring Semester
RHS 320 Radiation Detection and Protection 3
RHS 332 Nuclear Medicine II 3
RHS 301 Nuclear Medicine Instrumentation 3
RHS 340 Nuclear Medicine Internship I 2

## Summer Session



## Certificate Program in Radiation Therapy Technology

The certificate program is for students who already have a bachelor's degree and are looking to transition into the field of radiation therapy technology. Students must have completed the prerequisite courses as outlined below.* The certificate program takes approximately 29 months to complete. A full-time internship is required during both summer sessions and both evening and daytime courses are required.

First Year - Fall Semester

| RHS 315 | Radiation Physics | 3 |
| :--- | :--- | :--- |
| RHS 205 | Concepts Allied Health | 3 |
| KIN 209 | 1st Aid/Emergencies/CPR | 1 |

[^2]RHS 275 Patient Care Procedures ..... 3
RHS 276 Radiation Therapy I ..... 3
RHS 320 Radiation Detection and Protection ..... 3
Summer
RHS 280 Radiation Therapy Internship I ..... 4
Second Year - Fall Semester
RHS 326 Cross-Sectional Anatomy ..... 3
RHS 355 Radiation Therapy II ..... 3
RHS 357 Radiation Therapy Instrumentation ..... 3
RHS 360 Radiation Therapy Internship II ..... 2
Second Year - Spring Semester
RHS 356 Radiation Therapy III ..... 3
RHS 358 Treatment Planning ..... 3
RHS 361 Radiation Therapy Internship III ..... 2
RHS 404 CT Imaging ..... 3
Summer
RHS 362 Radiation Therapy Internship IV ..... 4
Third Year - Fall Semester
RHS 435 Radiation Therapy Internship V ..... 2
RHS 436 Radiation Therapy Internship VI ..... 2
RHS 440 Radiation Therapy Colloquium ..... 1
RHS 317 Radiation Biology ..... 3
RHS 412 Health Research Methods ..... 3
Total Credits: ..... 57
*Entrance Requirements and Prerequisites for the Certificate ProgramApplicant should possess a Bachelor's degree and have the following college-levelprerequisites:

| English | 6 Credits |
| :--- | :--- |
| Human Anatomy and Physiology | 6 Credits |
| Chemistry | 3 Credits |
| Physics | 8 Credits |
| Computer Science | 3 Credits |
| Pre-Calculus | 3 Credits |
| Statistics | 3 Credits |

## Certificate Program Requirements

Admission to and continuation in the Clinical Internship courses in NMT and RTT require an overall Cumulative index of 2.75 and an overall Major Academic course index of 2.75 (see list of Major Academic courses below).

Admission to the Major Academic courses, that are pre-requisites or co-requisites to clinical internships, in the NMT and RTT programs requires an overall Cumulative index of 2.75 and a Major Academic course index of 2.75 (see list of Major Academic courses that are pre-requisites or co-requisites for clinical internship courses, they are marked with an * below). If a student is unable to be admitted into the Major Academic courses because the indexes are lower than 2.75, they will be given one academic year to meet this requirement. Failure to meet this requirement within one academic year will result in dismissal from the program.

A grade of C or better is required in the Major Academic Courses (see list of Major Academic Courses below) for admission to sequential Major Academic Courses for which the course is a prerequisite. The student will be given one opportunity to repeat the course and must earn a grade of $C$ or better before entering sequential Major Academic Courses for which the course is a prerequisite. If a student needs to repeat more than two major academic courses, they will be dismissed from the program.

A grade of C or better is required in the Major Academic courses (see list of Major Academic courses below) for admission or continuation in Clinical Internship courses. The student will be given one opportunity to repeat the course and must earn a grade of $C$ or better before entering or continuing in Clinical Internship courses. (Please note that the Major Academic courses index must average to a 2.75 even though a few $C$ grades are obtained in the Major Academic courses).

A grade of C or better is required in the Clinical Internship courses (see list of Clinical Internship courses below) to continue in Clinical Internship courses. The student must earn a grade of $C$ or better the next regular time that specific Clinical Internship course is offered before continuing in Clinical Internship courses.

If a grade of $F$ is obtained in any Clinical Internship course, continuation in the Clinical Internship courses is not allowed.

Admission to the Clinical Internship courses in NMT and RTT is based upon the Faculty and Program Director's evaluation of the student's attendance, punctuality, maturity, attitude, motivation, responsibility, interpersonal skills, attentiveness to detail, pleasantness and ability to perform the duties of a nuclear medicine or radiation therapy technologist.

Continuation in the Clinical Internship courses in NMT and RTT is based upon the successful completion of the Overall and Clinical Evaluations given the student by the Clinical Supervisor at the Clinical Affiliate and the ongoing evaluation by the Faculty and Program Director of the student's attendance, punctuality, maturity, attitude, motivation, responsibility, interpersonal skills, attentiveness to detail, pleasantness and ability to perform the duties of a nuclear medicine or radiation therapy technologist.

Due to the serious nature of the duties performed by the student in the Clinical Internship courses, the student is granted one opportunity at completing the Clinical Internship. If
the student is removed from the clinical affiliate site by the clinical supervisor for valid reasons, the student will receive an F grade for that Clinical Internship course, the student will not be re-assigned to another clinical affiliate site and will not be eligible to enroll in clinical internship courses.

## The NMT major academic courses include:

| RHS 205 | Concepts Allied Health | 3 |
| :--- | :--- | :--- |
| RHS 275 | Patient Care Procedures | 3 |
| RHS 315 | Radiation Physics | 3 |
| RHS 317 | Radiation Biology | 3 |
| RHS 320 | Radiation Detection and Protection | 3 |
| RHS 301 | Nuclear Medicine Instrumentation | 3 |
| RHS 326 | Cross-Sectional Anatomy | 3 |
| BIOL 207 | Anatomy and Physiology I | 4 |
| BIOL 208 | Anatomy and Physiology II | 4 |
| RHS 331 | Nuclear Medicine I | 3 |
| RHS 332 | Nuclear Medicine II | 3 |
| RHS 404 | CT Imaging | 3 |
| RHS 412 | Health Research Methods | 3 |
| RHS 442 | Nuclear Medicine III | 3 |
| RHS 448 | CT Procedures | 3 |
| RHS 460 | Nuclear Medicine Colloquium | 1 |

The RTT major academic courses include:
RHS 205 Concepts Allied Health ..... 3
RHS 275 Patient Care Procedures ..... 3
RHS 276 Radiation Therapy I ..... 3
RHS 315 Radiation Physics ..... 3
RHS 317 Radiation Biology ..... 3
RHS 320 Radiation Detection and Protection ..... 3
RHS 326 Cross-Sectional Anatomy ..... 3
RHS 355 Radiation Therapy II ..... 3
RHS 356 Radiation Therapy III ..... 3
RHS 357 Radiation Therapy Instrumentation ..... 3
RHS 358 Treatment Planning ..... 3
RHS 404 CT Imaging ..... 3
RHS 412 Health Research Methods ..... 3
RHS 440 Radiation Therapy Colloquium ..... 1
BIOL 207 Anatomy and Physiology I ..... 4
BIOL 208 Anatomy and Physiology II ..... 4
The NMT clinical internship courses include:

| RHS 340 | Nuclear Medicine Internship I | 2 |
| :--- | :--- | :--- |
| RHS 341 | Nuclear Medicine Internship II | 4 |
| RHS 450 | Nuclear Medicine Internship III | 2 |
| RHS 451 | Nuclear Medicine Internship IV | 2 |
| The RTT clinical internship courses include: |  |  |
| RHS 280 | Radiation Therapy Internship I | 4 |
| RHS 360 | Radiation Therapy Internship II | 2 |
| RHS 361 | Radiation Therapy Internship III | 2 |
| RHS 362 | Radiation Therapy Internship IV | 4 |
| RHS 435 | Radiation Therapy Internship V | 2 |
| RHS 436 | Radiation Therapy Internship VI | 2 |

## Healthcare Administration

## Vision Statement

The B.S. in Healthcare Administration (BSHA) provides adult learners the opportunity to complete an undergraduate degree in coursework for science-based administrative positions required of today's health professionals. The BSHA concentration is taught in a blended format that is flexible and conducive for working professionals. It is our goal to supply regional healthcare employers with competently trained administrators.

## Undergraduate Curriculum

Successful completion of this program requires that students earn a total of 126 credits. The curriculum consists of a combination of general education and health courses. The remaining credits may be earned through transfer and/or elective courses.

## Program Learning Goals

By the completion of the program, students will:

- Evaluate the structure and needs of the U.S. healthcare system, including the organization and management of American hospitals
- Demonstrate appropriate competency in oral and written communication and presentation skills
- Conduct research, drawing on and documenting a variety of sources deemed appropriate for academic work and synthesize findings in a coherent way
- Analyze the social, legal, and economic aspects of a problem/situation in order to devise an appropriate strategy for problem-solving
- Develop skills to identify and coordinate ethical organizational behavior within the healthcare system
- Apply managerial accounting and finance skills to healthcare-related tasks and initiatives


## Allied Health Courses

I. General Education (36-38 credits)

PSEG 110 Foundations for Professional 3 Writing
PSEG 226 Organizational 3 Communications
PSPY $280 \quad$ General Psychology 3
PSCM 371
Visual Communications 3
PSLS 375
Organizational Ethics
3

## Mathematics

PSMT 221
Statistical Research Methods 3
PSMT 195 Math for the Organization 3 Leader

## Science

BIOL 207 Anatomy \& Physiology I 4
BIOL 208 Anatomy \& Physiology II 4
Religion Studies
PSRL 217 Religion in the Workplace 3
PSRL 379 Religion and Popular Culture 3
PSRL 274 Religion and Social Justice 3
II. Courses in Allied Health Courses (27 Credits)

PSAH 393 Hospital Organization \& 3
Management
PSLS $351 \quad$ Organizational Leadership 3
PSAH $395 \quad$ U.S. Health Care System 3
PSEE 236 Managerial Finance 3
PSEE 239 Managerial Accounting 3
PSPY 249 Industrial Psychology 3
PSPY 381 Applied Psychology for 3
Supervisors \& Managers
PSLS $450 \quad$ Strategic Planning 3
PSLW 365 Legal Aspects 3
III. Open Electives ( 63 Credits)

Total Credits 126
Courses may be reviewed as transferred credits. Upon matriculation, students are able to transfer up to 75 credits towards their Bachelor's degree after assessment from the Assistant Dean.

BSAH Academic Plan at a Glance
First Year: Semester One
PSEG 110
PSEG 226
Credits

PSRL 217
3

PSLS 375
PSLS 375 3
First Year: Semester Two Credits
PSMT 1953
PSRL 274 3
PSAH 393 3
PSLS 351 3
First Year: Semester Three Credits
Open Elective 3
Open Elective 3
Open Elective 3
Open Elective 3
Second Year: Semester One CreditsPSPY 280
PSRL 3793
PSAH 395
PSAH ..... 3
PSCM 371 ..... 3
BIOL 207
Second Year: Semester Two Credits
PSMT 231
PSEE 236Second Year: Semester Three
Open Elective4
PSPY 249 ..... 3
Open Elective ..... 3
Open Elective ..... 3
Open Elective ..... 3
Third Year: Semester One
BIOL 208 ..... 4Credits
PSEE 239 ..... 3
PSPY 381 ..... 3
Open Elective ..... 3
Open Elective ..... 3
Third Year: Semester Two
Open Elective
Open Elective ..... 
PSLS450 ..... 3
PSLW 365 ..... 3
Third Year: Semester Three Credits
Open Elective ..... 3
Open Elective ..... 3
Open Elective ..... 3
Open Elective ..... 3
Fourth Year: Semester One ..... Credits
Open Elective ..... 3
Open Elective ..... 3
Open Elective ..... 3
Open Elective ..... 3
Open Elective ..... 3
Total number of credits: 12

# Kakos School of Science - General Information 

Marcy Kelly, Ph.D., Dean<br>Michelle Deale, M.S., Assistant Dean

## Historical Note

Since its establishment as a separate school of Manhattan College in 1993, the Kakos School of Science has maintained its traditional ties with the School of Liberal Arts while striving to assure the continuation of Manhattan's tradition of excellence in education in Science. This tradition is reflected in the success of Manhattan's Science graduates and the position of Manhattan among a select number of colleges which are recognized as important sources of the nation's professional scientists.

## Mission Statement

We are a vibrant community of student and faculty scholars working together to advance cutting-edge research, teaching and learning. We combine Lasallian values (https:// manhattan.edu/about/lasallian-catholic.php), a person-centered approach to education, and the scientific method in order to find innovative solutions to modern problems and challenges, building a more compassionate and just world. To develop well-rounded scientists who value compassion as highly as innovation, we will:

- Build our community of scholars within the Kakos School of Science through the continued recruitment of diverse and outstanding faculty and students.
- Develop high quality faculty and students by providing them with professional and career development opportunities.
- Retain high quality faculty and students through enhanced and streamlined career pathway and student success efforts.

To these ends, each of our programs includes a core curriculum with courses in humanities, natural science, behavioral and social science. Class size is kept small, so students get individual attention from our expert faculty members.

## Curriculum and Programs

Undergraduate studies in the Sciences are most challenging, but provide a unique opportunity to learn and develop problem-solving and analytical skills while gaining a deeper understanding and appreciation of physical laws and their applications. The choice of a Science major is based upon the individual's interests, educational and career goals, and abilities. Majors may be chosen from several areas: biology, biochemistry, chemistry, computer science, environmental science, game design and production: coding, mathematics, and physics. Elective components of the major curricula provide the opportunity to explore other areas of interest, enhance knowledge in a specialized area of the major, or construct minor sequences in other disciplines. Minors may be earned in all of the departments of the Kakos School of Science. At Manhattan, our Science curricula contain a strong core component in the Liberal Arts to provide a foundation for our graduates to contend with the humanistic and ethical issues they will face after
graduation. Once a student is admitted to Manhattan College, all major, minor, and core courses should be taken at Manhattan College. Under unusual circumstances, and with the approval of the Dean after consultation with the Chair of the student's major department, courses may be approved to be taken at another institution.

A minimum grade of $C$ is necessary in any course used to satisfy major or minor requirements.

Students may only enroll in courses offered by the Kakos School of Science twice to earn a passing grade of C .

## Major Fields of Study

The Kakos School of Science provides the eight major fields of study that are listed below.

- Biochemistry
- Biology
- Chemistry
- Computer Science
- Environmental Science
- Game Design and Production: Coding
- Mathematics
- Physics

The Kakos School of Science is unique among the five traditional undergraduate schools in that it offers each of its majors in a Bachelor of Science track as well as a Bachelor of Arts track. Although program differences will vary from major to major, the Bachelor of Arts track is generally less restrictive allowing greater flexibility for students pursuing a second major or minors.

## Second Majors

By carefully constructing their plan of study, students can pursue a second major either within the Kakos School of Science or in any discipline in the other schools in Manhattan College. Students wishing to complete a second major must complete the requirements for both majors. Pursuing a second major might require taking courses during the summer and/or additional expense. If you are interested in doing a second major, please consult with the Assistant Dean.

## Minor Fields of Study

In order to provide an opportunity for students to broaden their educational experiences, students in Manhattan College are able to minor in any of the following areas:

- Astronomy
- Biochemistry
- Biology
- Chemistry
- Computer Science
- Environmental Science
- Mathematics
- Physics

Minors in the Kakos School of Science consist of a minimum of fifteen credits in the discipline. Details of these programs may be found under the separate headings for each department in the Kakos School of Science.

Science students who are interested in pursuing a minor outside the Kakos School of Science must contact the chair of the respective department for further information.

## Program Concentrations

In addition to the regular course of study, the programs of study in the Kakos School of Science deliver focused instruction in subjects of contemporary interest such as:

- Applied Mathematics
- Machine Learning \& Intelligence
- Nanoscience
- Theoretical Physics

For students interested in health careers, Manhattan College also offers a Pre-Health Concentration. Please see this link (http://catalog.manhattan.edu/undergraduate/science/ prehealth/) for for more information.

## Student Course Load

In the Kakos School of Science, a student's course load is determined by the major selected. Full-time status is considered 12 credits or higher. Loads vary from semester to semester. Students should consult the Program of Study for their selected major. Enrolling in more credits than the prescribed major could incur over credit charges.

## Master's Degree Programs

In addition to all of the undergraduate degrees, the Kakos School of Science also offers graduate degrees in Computer Science and Mathematics. Academically qualified undergraduate students can begin taking graduate courses in their senior year. It may then be possible to obtain a Master's degree with only an additional year of study. Please consult the Graduate Catalog (http://catalog.manhattan.edu/graduate/science/) for more information.

## Kakos School of Science Curriculum

To complete their degree, students in the Kakos School of Science have various requirements broken down into different categories: First Year Seminar, Liberal Arts Core, Cognate Requirements, Major Requirements, and Free Electives. If a student elects to do a minor then they would also have Minor Requirements.

The First Year Seminar is the same for all majors in the Kakos School of Science and consists of SCI 100 Science First Year Seminar I and SCI 101 Science First Year Seminar II. The Liberal Arts Core is generally the same for all majors in the Kakos School of

Science and consists of the courses listed below. The Cognate Requirements, Major Requirements, and Free Electives vary from major to major. These requirements can be found under each department.

## Liberal Arts Core Requirements

College Writing (ENGL 110 First Year Composition or ENGL 210 Advanced First 3 Year Composition)
Religious Studies (three courses in RELS) ${ }^{1} 9$
Modern Language (a full year requirement of the same language) 6
ENGL 150 Roots: Literature 3
HIST 150 Roots: History 3
PHIL 150 Roots: Philosophy 3
One of the following: 3

| LLRN 102 | Classical Origins: West Culture |
| :--- | :--- |
| PHIL 213 | Introduction to Logic |
| PHIL 214 | Critical Thinking |

One of the following: 3
$\begin{array}{ll}\text { ART } 150 & \text { Roots: Art } \\ \text { MUSC } 150 & \text { Roots: Music }\end{array}$
Two of the following social sciences: 6
ECON 150 Roots: Economics
POSC 150 Roots: Government
SOC 150 Roots: Sociology
PSYC 150 Roots: Psychology
Total Credits
39
1 RELS 110 The Nature and Experience of Religion, a 200 level RELS course in Catholic Studies, an upper level RELS course in Global Studies or Contemporary Issues.

## Kakos School of Science Honors Program

The Kakos School of Science Honors Program is designed to provide talented, highly qualified, and highly-motivated science and mathematics undergraduate students with an enriching experience that develops rigorous and cutting-edge scientific skills, select opportunities with top research faculty, leaders, and mentors, and exposure to and lived experience with Lasallian values.

Students with majors in the Kakos School of Science are accepted into the Honors Program based on academic performance, involvement in extracurricular activities, and potential for leadership and scholarship. They join a community of students who are focused on academic and leadership achievement. They enter a curriculum designed to enhance their science and interpersonal skills through seminar-style core classes, specialized major courses, and a senior capstone research experience/thesis. Additional career-related networking activities are also offered.

The curriculum consists of at least 22 credits of Honors courses (at least 8 courses) to be taken over 4 years at Manhattan College. Please note that all of the Honors courses, excluding the 1 credit Honors Thesis Writing course, are enriched versions of courses in a student's program of study and are not additional courses. At least two of those Honors courses must be outside the student's major department, one of which may be outside the Kakos School of Science. The remaining courses will be in the major department and will include at least 3 credits of Honors Thesis Research in the senior year. Students will give a presentation on their thesis. All students must maintain a cumulative GPA of at least 3.5 at Manhattan College to remain in the program.

For more information on the Kakos School of Science Honors Program, visit our website at: School of Science Honors Program (https://manhattan.edu/academics/schools-and-departments/school-of-science/School-of-Science-Honors-Program.php).

## Academic Advising

Academic advisement for students in Science is conducted by the Assistant Dean in conjunction with the Department Chairs and faculty. The Assistant Dean counsels all students throughout their academic careers on not only policy and procedures, but any challenges - personal and academic - that may arise in a student's time at the College. All students should select their major by the end of their freshman year. Programs of study are approved each semester by the Assistant Dean. Additionally, Department Chairs and faculty are responsible for advising all students in their majors. The faculty are closely associated with professional organizations and industrial groups carrying out related activities, thus assuring maximum service to the student in preparing to meet the requirements for the degree, for advanced professional study, and for career placement.

Science students who plan to enter graduate health professions programs should consult with the Pre-Health Professions Advisor. The Advisor will guide the students through the preparation and application process required for admission to health related schools.

## Academic Standing

To be considered in good a academic standing, all students in the Kakos School of Science must maintain a cumulative GPA of at least 2.0 regardless of class level. Grade point averages are computed at the end of each semester or term.

Students are expected to make adequate progress towards fulfilling their degree requirements every term. Students who are not making adequate progress are subject to academic sanctions.

## Study Abroad

Students interested in studying abroad should discuss their interest with the Assistant Dean by the beginning of sophomore year. Students may opt to study abroad for either a full semester or on one of the College's short-term programs during the winter intersession or summer break. If planning to go abroad for a full semester, it is best to plan the semester of study abroad for the sophomore or junior year. Further information about study abroad opportunities is available through the Study Abroad Office.

## Honor Societies and Research Opportunities

A number of national honor societies have been established on campus in order to encourage and recognize the achievements of Manhattan College students.

Phi Beta Kappa, founded in 1776, is dedicated to recognizing excellence in the liberal arts and sciences. The Manhattan College chapter, The Upsilon of New York, was established in 1971. Election to Phi Beta Kappa is generally regarded as a mark of the highest distinction.

Sigma Xi is a national honor society founded in 1896 to encourage research in the sciences. Students are elected to membership on the basis of their accomplishments in research and their enthusiasm for continued scientific investigation.

Departments of the Kakos School of Science sponsor local chapters of national honor societies in their disciplines as well: Beta Beta Beta (Biology), Gamma Sigma Epsilon (Chemistry and Biochemistry), Tau Sigma Kappa (Computer Science), Pi Mu Epsilon (Mathematics), Sigma Pi Sigma (Physics), and Alpha Epsilon Delta (Health PreProfessional).

The Science faculty are dedicated to encouraging student research efforts. Manhattan's small classes and close student-faculty interactions generate an atmosphere which has produced many important student-faculty research collaborations. Every summer over twenty students receive financial support to conduct research with their faculty on campus.
The students' research is presented at regional and national conferences and potentially leads to published papers in professional journals.

## Professional and Career Development

## Prelegal Advisory Committee

While there is no single major or minor here at Manhattan College that is a prerequisite for applying to law school, students who do well in the application process have strong analytic and problem-solving skills, critical reading skills, writing skills, communication skills, research skills, task management skills and a dedication to public service and promotion of justice, according to the American Bar Association. It is important to work with the pre-law advisors throughout the undergraduate process in order to be prepared for the law school application process. Contact the Center for Graduate and Fellowship Advisement in Thomas Hall 3.50, 718-862-7399, gsfa@manhattan.edu, for more information.

## Preparation for Medicine, Dentistry and other Health Professions

Required coursework for admission into schools of the health professions are established by the Association of American Medical Colleges, the American Dental Association, and other professional associations in the health fields. The pre-professional requirements in the sciences are met within the context of a broad liberal education. Pre-professional students are expected to maintain an average of at least a B in all their courses.

Successful applicants to schools of the health professions demonstrate academic excellence, strong analytical skills, an aptitude for science, and a commitment to service.

In general, there is no preferred major for any Health Profession. The requirements vary, but all require numerous courses in the Sciences and Liberal Arts, including Biology, Chemistry, and Mathematics. This information can be found at the Center for Graduate School and Fellowship Advisement (CGSFA).

Students seeking entry to health professions schools are encouraged to enroll in the P (http://catalog.manhattan.edu/undergraduate/science/prehealth/)re-Health Concentration (http://catalog.manhattan.edu/undergraduate/science/prehealth/). Students are not required to join the concentration in order to receive a Health Professions Advisory Committee (HPAC) evaluation letter, however participation is recommended in order to be included in the competitive cohort that applies to health profession schools each year.

## Health Professions Advisory Committee

The Health Professions Advisory Committee (HPAC) is a body of faculty members from several schools who give guidance to students interested in preparing for careers in medicine, dentistry and other health professions. The Committee advises students on the selection of programs of study that will equip them with specialized pre-professional courses in the sciences and with a broad liberal education to prepare them for effective participation in the health-care community. Further information is available from the Chair of the HPAC, Dr. Bruce Liby of the Physics and Astronomy Department.

# Biochemistry \& Chemistry 

Dr. Yelda Hangun-Balkir<br>Chair of the Department

The goals of the chemistry and biochemistry department are to provide a program which emphasizes the basic understanding of the constituents of matter, its transformations and the chemical principles involved therein. The department also promotes the study of the chemical and biochemical systems and the manner and methods by which they are investigated. To accomplish this goal, students are provided with a basic framework of knowledge by which they can carry out further study, research and understand the implication of scientific discoveries, inventions and their impact upon human welfare. They learn to think analytically and independently and are encouraged to apply this knowledge ethically throughout their lifetimes to civic, personal and professional problems. As a result, students are prepared for careers in the various disciplines and sub-disciplines of chemistry and biochemistry, in the teaching of these disciplines and for pursuing higher studies in basic and applied sciences or to follow professional careers in medicine, dentistry, law and other areas.

Undergraduate research is encouraged and the department is equipped with state-of-the-art instrumentation that is available for student use. Included are a Fourier-transform infrared spectrophotometer, an X-ray crystallography apparatus, a diode-array UV/visible spectrophotometer, a Fourier-transform nuclear magnetic resonance spectrophotometer, an atomic absorption unit, several high performance liquid chromatographs, gas chromatographs, and a molecular modeling laboratory.

Students who transfer into the chemistry and biochemistry programs are required to take at least half of their required chemistry credits at Manhattan College.

## Degree Plans

The Department of Chemistry and Biochemistry offers the following programs:

- Major in Chemistry
- Bachelor of Science Degree
- Bachelor of Arts Degree
- Major in Biochemistry
- Bachelor of Science Degree
- Bachelor of Arts Degree
- Minor in Chemistry
- Minor in Biochemistry
- Concentration in Nanoscience

A minimum grade of C is required for all courses in the major or minor. The following courses are not allowed for the any of the majors or minors in Chemistry or Biochemistry:
CHEM 100 Foundations of Chemistry, CHEM 105 General Chemistry I, or CHEM 106 General Chemistry II.

## B.S. Major in Chemistry

Students in this program must maintain a 2.8 GPA in the major by the end of the fourth semester. Students who do not maintain this GPA are advised not to continue in the chemistry major. The following courses are required:
CHEM 101 General Chemistry I 3
CHEM 102 General Chemistry II 3
CHEM 103 General Chemistry Laboratory I 1
CHEM $104 \quad$ General Chemistry Laboratory II 1
CHEM 302 Analytical Chemistry 5
CHEM 309 Physical Chemistry I 3
CHEM $310 \quad$ Physical Chemistry II 3
CHEM $311 \quad$ Physical Chemistry Laboratory 2
CHEM 319 Organic Chemistry I 3
CHEM $320 \quad$ Organic Chemistry II 3
CHEM 323 Organic Chemistry Laboratory I 2
CHEM $324 \quad$ Organic Chemistry Laboratory II 2
CHEM 335 Inorganic Chemistry 3
CHEM 336 Inorganic Chemistry Laboratory 2
CHEM $410 \quad$ Physical Chemistry Laboratory II 2
CHEM 437 Computers, Structure and Bonding 3
CHEM 452 Advanced Spectroscopy 5
MATH 185 Calculus I 3
MATH 186 Calculus II 3
MATH 285 Calculus III 3
MATH 286 Differential Equations 3
PHYS 101 Physics I 3
PHYS 191 Physics I Lab 1
PHYS $102 \quad$ Physics II 3
PHYS 192 Physics II Lab 1
Humanities / Social Science Elective 3
Total Credits 69
The chemistry department is approved by the American Chemical Society and will certify students as having complied the Society requirements provided they have completed the minimum requirements for the B.S. plus CHEM 433 Biochemistry I and one additional 400 level Chemistry course ( CHEM 415 Advanced Organic Chemistryor CHEM 421
Advanced Topics: in Chemistry or CHEM 427 Advanced Physical Chemistry or CHEM 434 Biochemistry of Cellular Processes or CHEM 435 Advanced Inorganic Chemistry).

## B.S. Major in Biochemistry

Students in this program must maintain a 2.8 GPA in the major by the end of the fourth semester. Students who do not maintain this GPA are advised not to continue in the biochemistry major. The following courses are required:

CHEM 101 General Chemistry I 3
CHEM 102 General Chemistry II 3
CHEM 103 General Chemistry Laboratory I 1
CHEM $104 \quad$ General Chemistry Laboratory II 1
CHEM 302 Analytical Chemistry 5
CHEM 309 Physical Chemistry I 3
CHEM $310 \quad$ Physical Chemistry II 3
CHEM $311 \quad$ Physical Chemistry Laboratory 2
CHEM 319 Organic Chemistry I 3
CHEM $320 \quad$ Organic Chemistry II 3
CHEM 323 Organic Chemistry Laboratory I 2
CHEM $324 \quad$ Organic Chemistry Laboratory II 2
CHEM 335 Inorganic Chemistry 3
CHEM 433 Biochemistry I 3
CHEM $434 \quad$ Biochemistry of Cellular Processes 3
CHEM 436 Biochemistry Laboratory 2
CHEM 437 Computers, Structure and Bonding 3
CHEM 457 Nucleic Acid Biochemistry 3
CHEM $459 \quad$ Nucleic Acids BioChemistry Lab 2
BIOL 217 Genetics 4
BIOL 111 General Biology I 4
BIOL 113 General Biology I Laboratory 0
BIOL 112 General Biology II 4
BIOL 114 General Biology II Laboratory 0
BIOL 218 Genetics - Lab 0
MATH 185 Calculus I 3
MATH 186 Calculus II 3
PHYS 101 Physics I 3
PHYS 191 Physics I Lab 1
PHYS 102 Physics II 3
PHYS $192 \quad$ Physics II Lab 1
Advanced Biology Elective ${ }^{1} \quad 3$
Total Credits 79
1 The advanced biology elective should be chosen from the following courses: BIOL 225 Microbiology, BIOL 312 Advanced Biology for Biochemists, BIOL 319 Cellular

BioChemistry/Physiology, BIOL 320 Animal Physiology, BIOL 321 Molecular Cell Biology, or BIOL 405 Neurobiology.

Students planning to enter either medical or dental school should consult with the Premedical Advisory Committee and should acquaint themselves with the entrance requirements of medical or dental schools. Students pursuing the B.S. degree in biochemistry may, through the judicious choice of electives, comply with the American Chemical Society requirements for certification.

## B.A. Major in Chemistry

Students in this program must successfully complete the following courses with a minimum grade of $C$.

CHEM 101 General Chemistry I 3
CHEM 102 General Chemistry II 3
CHEM 103 General Chemistry Laboratory I 1
CHEM 104 General Chemistry Laboratory II 1
CHEM 319 Organic Chemistry I 3
CHEM $320 \quad$ Organic Chemistry II 3
CHEM 323 Organic Chemistry Laboratory I 2
CHEM $324 \quad$ Organic Chemistry Laboratory II 2
MATH 185 Calculus I 3
MATH 186 Calculus II 3
MATH 285 Calculus III 3
PHYS 101 Physics I 3
PHYS $191 \quad$ Physics I Lab 1
PHYS 102 Physics II 3
PHYS 192 Physics II Lab 1
After completion of the preceding courses, students must take the following: 16
CHEM 302 Analytical Chemistry
CHEM $309 \quad$ Physical Chemistry I
CHEM $310 \quad$ Physical Chemistry II
CHEM 311 Physical Chemistry Laboratory
CHEM 437 Computers, Structure and Bonding 3
Chemistry Elective (300 or 400 level Chemistry course) 3-5
Humanities / Social Science Electives 9
Natural Science / Mathematics Electives 6-8
$\begin{array}{ll}\text { Total Credits } & \text { 72-76 }\end{array}$

## B.A. Major in Biochemistry

Students in this program must successfully complete the following courses with a minimum grade of C .
CHEM 101 General Chemistry I ..... 3
CHEM 102 General Chemistry II ..... 3
CHEM 103 General Chemistry Laboratory I ..... 1
CHEM 104 General Chemistry Laboratory II ..... 1
CHEM 319 Organic Chemistry I ..... 3
CHEM 320 Organic Chemistry II ..... 3
CHEM 323 Organic Chemistry Laboratory I ..... 2
CHEM 324 Organic Chemistry Laboratory II ..... 2
BIOL 111 General Biology I ..... 4
BIOL 113 General Biology I Laboratory ..... 0
BIOL 112 General Biology II ..... 4
BIOL 114 General Biology II Laboratory ..... 0
BIOL 217 Genetics ..... 4
BIOL 218 Genetics - Lab ..... 0
MATH 185 Calculus I ..... 3
MATH 186 Calculus II ..... 3
PHYS 101 Physics I ..... 3
PHYS 191 Physics I Lab ..... 1
PHYS 102 Physics II ..... 3
PHYS 192 Physics II Lab ..... 1
After completion of the preceding courses, students must take the following: ..... 21

| CHEM 302 | Analytical Chemistry |
| :--- | :--- |
| CHEM 309 | Physical Chemistry I |
| CHEM 433 | Biochemistry I |CHEM 434 Biochemistry of Cellular ProcessesCHEM 436 Biochemistry LaboratoryCHEM $457 \quad$ Nucleic Acid BiochemistryCHEM $459 \quad$ Nucleic Acids BioChemistry Lab

Humanities / Social Science Electives ..... 6
Natural Science / Mathematics Electives ..... 6-8
Total Credits ..... 77-79
Minor in ChemistryStudents should complete the following courses (or their corresponding Honors Course)in the Department of Chemistry and Biochemistry for the minor in Chemistry. A minimumgrade of C is required for all courses. A student may not count the same credits towardsminors in both biochemistry and chemistry.
CHEM 101 General Chemistry I ..... 3
CHEM 102 General Chemistry II ..... 3
CHEM 319 Organic Chemistry I ..... 3
CHEM 320 Organic Chemistry II ..... 3

One additional course selected from CHEM 302, CHEM 309, CHEM 310, CHEM 335 or CHEM 421 or CHEM 433.

## Minor in Biochemistry

Students should complete the following courses in the Department of Chemistry and Biochemistry for the minor in Biochemistry. A minimum grade of $C$ is required for all courses. A student may not count the same credits towards minors in both biochemistry and chemistry.

CHEM 319 Organic Chemistry I 3
CHEM $320 \quad$ Organic Chemistry II 3
CHEM 433 Biochemistry I 3
CHEM 434 Biochemistry of Cellular Processes 3
CHEM 436 Biochemistry Laboratory 2
or CHEM $457 \quad$ Nucleic Acid Biochemistry

## Concentration in Nanoscience

Students should complete the following courses in the Department of Chemistry and Biochemistry for the concentration in Nanoscience. A minimum grade of $C$ is required for all courses.

CHEM 112 Introduction to Materials Chemistry 3
CHEM 333
Solid State Materials4

CHEM 444

Characterization of Materials

## PLANS OF STUDY

## Bachelor of Science in Chemistry

First Year

Fall
CHEM 101
Credits Spring
Credits
3 CHEM 102
3
CHEM 103
1 CHEM 104 1
MATH 185
ENGL 110
SCI 100
Social Science ${ }^{1}$
3 MATH 1863
3 RELS 1103
1 LLRN 102 (or PHIL 213 or PHIL 3 214)

3 SCI $101 \quad 1$
14

## Second Year

Fall
Credits Spring
Credits
CHEM 319
3 CHEM 3203
CHEM 323
2 CHEM $324 \quad 2$
MATH 285
3 CHEM 3353

| HIST 150 |  | 3 CHEM 336 | 2 |
| :---: | :---: | :---: | :---: |
| ENGL 150 |  | 3 MATH 286 | 3 |
| MUSC 150 or ART 150 |  | 3 PHIL 150 |  |
|  | 17 |  | 16 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| CHEM 302 |  | 5 CHEM 310 | 3 |
| CHEM 309 |  | 3 CHEM 311 | 2 |
| PHYS 101 <br> \& PHYS 191 |  | $\begin{aligned} & 4 \text { PHYS } 102 \\ & \text { \& PHYS } 192 \end{aligned}$ | 4 |
| RELS Catholic Studies |  | 3 CHEM 437 | 3 |
| Modern Language |  | 3 RELS Global/Contemporary | 3 |
|  |  | Modern Language | 3 |
|  |  | 18 | 18 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| CHEM 410 |  | 2 CHEM 452 | 5 |
| Social Science ${ }^{1}$ |  | 3 Electives ${ }^{2}$ | 11 |
| Humanities / Social Science |  | 3 |  |
| Elective |  |  |  |
| Electives ${ }^{2}$ |  | 9 |  |

## Total Credits: 130

1 ECON 150 or POSC 150 or PSYC 150 or SOC 150.
2 For American Chemical Society Certification, 6 credits of electives must include CHEM 433 and one additional Chemistry course (CHEM 415, 421, 427, 434, 435).

## Bachelor of Arts in Chemistry

## First Year

Fall
CHEM 101
CHEM 103
ENGL 110
Credits Spring Credits
3 CHEM 102
1 CHEM 104 1
3 Social Science ${ }^{1} 3$
LLRN 102 (or PHIL 213 or PHIL 3 MATH 1863
214)

MATH 185 3 RELS 1103
SCI $100 \quad 1$ SCI 101

## Second Year

| Fall | Credits $\quad$ Spring | Credits |
| :--- | :---: | ---: |
| CHEM 319 | 3 CHEM 320 | 3 |
| CHEM 323 | 2 CHEM 324 | 2 |
| CHEM 437 | 3 Electives |  |
| MATH 285 | 3 ENGL 150 | 3 |
| Electives $^{2}$ | 3 PHIL 150 | 3 |
| HIST 150 | 3 Humanities / Social Science | 3 |
|  | Elective | 3 |

17 ..... 17

Third Year
Fall Credits Spring Credits

PHYS 101
\& PHYS 191
CHEM 302
RELS Catholic Studies
4 PHYS 102

$$
\text { \& PHYS } 192
$$

5 Social Science ${ }^{1} 3$
3 MUSC 150 or ART 1503
Electives ${ }^{2}$
3 Electives ${ }^{2} \quad 6$
15
Fourth Year
Fall Credits Spring Credits

CHEM 309
3 CHEM 310
CHEM Elective
RELS Global/Contemporary
3 CHEM 3112
3 Humanities / Social Science 3
Elective
3 Electives $^{2} \quad 6$
Humanities / Social Science
Elective
Electives $^{2} \quad 3$ Modern Language 3
Modern Language 3
18

## Total Credits: 128

1 ECON 150 or POSC 150 or PSYC 150 or SOC 150.
2 Of the 24 free elective credits allowed in the BA Chemistry program, at least six credits must be earned in the humanities or social sciences and six credits in the natural sciences or mathematics.

## Bachelor of Science in Biochemistry

First Year
Fall Credits Spring Credits
CHEM 101
CHEM 103
3 CHEM 102

BIOL 111
4 BIOL 1124
BIOL 113
0 BIOL 1140
3 MATH $186^{1} 3$
MATH $185^{1}$
ENGL 110
3 RELS 1103
SCI 100
1 SCI $101 \quad 1$
15
15
Second Year

Fall
CHEM 319
CHEM 323
PHYS 101
\& PHYS $191^{3}$
LLRN 102 (or PHIL 213 or PHIL 214)

Modern Language
Social Sciences ${ }^{2}$

Credits Spring
Credits
3 CHEM 320
3
2 CHEM 324 2
4 CHEM 433 3

3 PHYS 1024
\& PHYS $192^{4}$
3 Modern Language 3
3
18
15
Third Year
Fall
CHEM 302
CHEM 309
CHEM 457
CHEM 436
HIST 150
Credits Spring Credits
5 CHEM 3103
3 CHEM 3112
3 CHEM 434 3
2 PHIL 1503
3 CHEM 4592

BIOL 217 4
BIOL 218 0
16
17
Fourth Year
Fall
Credits Spring
Credits
3 CHEM 335 (or CHEM 437 ) 3
3-4 MUSC 150 or ART 1503
6 RELS Global/Contemporary 3
3 Electives ${ }^{6} \quad 6$
Social Sciences ${ }^{2} \quad 3$
15-16 18
Total Credits: 129-130
1 MATH 155 \& MATH 156 may replace MATH 185 \& MATH 186.
2 ECON 150 or POSC 150 or PSYC 150 or SOC 150.
3 PHYS 107 \& PHYS 197 may replace PHYS 101 \& PHYS 191.
4 PHYS 108 \& PHYS 198 may replace PHYS 102 \& PHYS 192.

The advanced biology elective should be chosen from the following courses: BIOL 225 Microbiology, BIOL 312 Advanced Biology for Biochemists, BIOL 319 Cellular BioChemistry/Physiology, BIOL 320 Animal Physiology, BIOL 321 Molecular Cell Biology or BIOL 405 Neurobiology.
CHEM 456 Advanced Topics in Biochemistry is highly recommended as a natural sciences elective for all biochemistry majors. CHEM 456 is required for the Honors Biochemistry Degree.

## Bachelor of Arts in Biochemistry

## First Year

Fall Credits Spring Credits

BIOL 111
BIOL 113
CHEM 101
CHEM 103
ENGL 110
SCI 100
MATH $185^{1}$
4 BIOL 112
4
0 BIOL 1140
3 CHEM 1023
1 CHEM 104 1
3 RELS 1103
1 SCI 101 1
3 MATH $186^{1} \quad 3$
15
15
Second Year
Fall Credits Spring Credits
CHEM 319
3 CHEM 3203
CHEM 323
2 CHEM 3242
HIST 150
3 PHIL 1503
LLRN 102 (or PHIL 213 or PHIL 3 CHEM 4333
214)

Social Science ${ }^{2} \quad 3$ Modern Language 3
Modern Language 3
17 14
Third Year
Fall Credits Spring Credits
PHYS 101
\& PHYS $191^{3}$
CHEM 457
CHEM 436
ENGL 150
Electives ${ }^{5}$
4 CHEM 4343
3 PHYS 1024
\& PHYS $192^{4}$
2 CHEM $459 \quad 2$
3 Electives $^{5} 3$
3 BIOL $217 \quad 4$
BIOL $218 \quad 0$
Fourth Year
Fall Credits Spring Credits
CHEM 302
CHEM 309
MUSC 150 or ART 150
RELS Catholic StudiesElectives ${ }^{5}$5 RELS Global/Contemporary3
3 Electives ${ }^{6}$ ..... 12-13
3 Social Sciences ${ }^{2}$ ..... 33
3
1718-19

## Total Credits: 127-128

${ }^{1}$ MATH 155 \& MATH 156 may replace MATH 185 \& MATH 186.
2 ECON 150 or POSC 150 or PSYC 150 or SOC 150.
3 PHYS 107 \& PHYS 197 may replace PHYS 101 \& PHYS 191.
4 PHYS 108 \& PHYS 198 may replace PHYS 102 \& PHYS 192.
5 Of the 21 free elective credits allowed in the BA biochemistry program, at least six credits must be earned in the humanities or social sciences and six credits in the natural sciences or mathematics. CHEM 456 Advanced Topics in Biochemistry is highly recommended as a natural science elective for all biochemistry majors.
6 Total credit count could vary due to natural science electives in biology that include a laboratory component.

# Biology 

Dr. Antoine N. Nicolas<br>Chair of the Department

As the formal study of life, biology is at the crux of many spheres of our existence. Such domains of biology include our food and nutrition, our health, and the environments in which we live. Thus, a general knowledge of biology is useful and desirable for people of all walks of life, as well as those who require specialized knowledge for professions in any of the many subspecialties of biology.

In order to meet the educational needs of students in all majors, as well as biology majors, the Biology Department here at Manhattan College offers a variety of general courses for non-majors as well as more rigorous and specialized studies for our biology majors. To ensure a broad training, the curriculum for biology majors includes prescribed areas of required studies, plus some electives in advanced courses of cell and molecular biology, as well as organismal biology. In recognition that the best learning comes via doing, nearly all of our courses have associated, co-requisite, laboratory components. Many of these lab courses provide training in modern molecular biology techniques, while others provide fundamental training via anatomical, taxonomic, and ecological investigations. We also support off-campus studies that generally include class field trips to venues such as the American Museum of Natural History, the New York Botanical Gardens, and to the nearby, thousand-plus acre Van Cortland Park, a city park that preserves upland forests and wetlands. Our advanced research students present their findings at regional, national, and international meetings. Pre-professional students with interests in clinical studies generally "shadow" medical professionals in clinical settings.

Students preparing for professional school admission should consult the School of Science section of the catalog for requirements.

## B.S. Degree

The B.S. degree is the preferred degree for students who wish to prepare for professional or graduate school. Students plan an individual program of study of their Biology courses and free electives after consultation with their assigned advisor in the Biology Department.

## Required Courses for the B.S. Degree

| BIOL 111 | General Biology I (Co-requisite BIOL 113) | 4 |
| :--- | :--- | :--- |
| BIOL 113 | General Biology I Laboratory (Co-requisite BIOL 111) | 0 |
| BIOL 112 | General Biology II (Co-requisite BIOL 114) | 4 |
| BIOL 114 | General Biology II Laboratory (Co-requisite BIOL 112) | 0 |
| BIOL 217 | Genetics (Co-requisite BIOL 218) | 4 |
| BIOL 218 | Genetics - Lab (Co-requisite BIOL 217) | 0 |
| BIOL 223 | Ecology (Co-requisite BIOL 220) | 4 |
| BIOL 220 | Ecology Lab (Co-requisite BIOL 223) | 0 |
| BIOL 231 | Evolution (Co-requisite BIOL 232) | 4 |
| BIOL 232 | Evolution Laboratory (Co-requisite BIOL 231) | 0 |
| BIOL 404 | Biology Colloquium I | 1 |


| BIOL 414 | Biology Colloquium II |  |
| :---: | :---: | :---: |
| Cell \& Molecular Biology (choose any two 4-credit courses) |  | 8 |
| BIOL 225 | Microbiology (Co-requisite BIOL 226) |  |
| BIOL 226 | Microbiology Lab (Co-requisite BIOL 225 ) |  |
| BIOL 302 | Developmental Biology (Co-requisite BIOL 335) |  |
| BIOL 335 | Developmental Biology Lab (Co-requisite BIOL 302) |  |
| BIOL 319 | Cellular BioChemistry/Physiology (Co-requisite BIOL 323) |  |
| BIOL 323 | Cellular Biochemistry/Physiology Laboratory (Co-requisite BIOL 319) |  |
| BIOL 321 | Molecular Cell Biology (Co-requisite BIOL 322) |  |
| BIOL 322 | Molecular Cell Biology Lab (Co-requisite BIOL 321) |  |
| BIOL 405 | Neurobiology (Co-requisite BIOL 407) |  |
| BIOL 407 | Neurobiology - Lab (Co-requisite BIOL 405) |  |
| BIOL 426 | Immunology |  |
| Organismal Biology (choose any two 4-credit courses) |  | 8 |
| BIOL 301 | Comparative Chordate Anatomy (Co-requisite BIOL 313) |  |
| BIOL 313 | Compar Chordate Anatomy-Lab (Co-requisite BIOL 301) |  |
| BIOL 304 | Invertebrate Zoology |  |
| BIOL 305 | Plant Biology (Co-requisite 303) |  |
| BIOL 303 | Plant Biology Laboratory (Co-requisite BIOL 305) |  |
| BIOL 320 | Animal Physiology (Co-requisite 324) |  |
| BIOL 324 | Animal Physiology Laboratory (Co-requisite 320) |  |
| BIOL 326 | Animal Behavior (Co-requisite 327) |  |
| BIOL 327 | Animal Behavior Lab (Co-requisite 326) |  |
| BIOL 409 | Marine Biology |  |
| BIOL 431 | Freshwater Ecology |  |
| BIOL 432 | Estuarine and Coastal Ecology |  |
| Biology Electives (choose a combination of courses to total at least 4 credits) |  | 4 |
| Any 1 of Cell \& Molecular or Organismal courses listed above |  |  |
| BIOL 207 | Anatomy and Physiology I (Co-requisite BIOL 209) |  |
| BIOL 209 | Anatomy And Physiology Lab I (Co-requisite BIOL 207) |  |
| BIOL 208 | Anatomy and Physiology II (Co-requisite BIOL 210) |  |
| BIOL 210 | Anatomy \& Physiology II Lab (Co-requisite BIOL 208) |  |
| BIOL 318 | Advances in Nutrition |  |
| BIOL 310 | Research in Biology for Juniors |  |
| BIOL 311 | Research in Biology for Juniors |  |
| BIOL 317 | Research in Biology for Juniors |  |
| BIOL 360 | Independent Study in Biology for Juniors |  |
| BIOL 375 | Internship for Juniors |  |
| BIOL 400 | Research in Biology |  |


| BIOL 406 | Special Topics: in Biology (May fulfill molecular or organismal <br> requirement) |
| :--- | :--- |
| BIOL 410 | Research in Biology for Seniors |
| BIOL 411 | Research in Biology for Seniors |
| BIOL 413 | Research in Biology for Seniors |
| BIOL 460 | Independent Study in Biology |
| BIOL 475 | Internship for Seniors |

Total Credits
Cognate Requirements for the B.S. Degree

| CHEM 101 | General Chemistry I (Co-requisite CHEM 103) | 3 |
| :--- | :--- | :--- |
| CHEM 103 | General Chemistry Laboratory I (Co-requisite CHEM 101) | 1 |
| CHEM 102 | General Chemistry II (Co-requisite CHEM 104) | 3 |
| CHEM 104 | General Chemistry Laboratory II (Co-requisite CHEM 102) | 1 |
| CHEM 319 | Organic Chemistry I | 3 |
| CHEM 323 | Organic Chemistry Laboratory I (Co-requisite CHEM 319) | 2 |
| CHEM 320 | Organic Chemistry II | 3 |
| CHEM 324 | Organic Chemistry Laboratory II (Co-requisite CHEM 320) | 2 |
| Calculus I |  | 3 |
| MATH 155 | Calculus for the Life Sciences I |  |
| Or MATH 185 | Calculus I |  |

Calculus II 3
MATH $156 \quad$ Calculus for the Life Sciences II
or MATH 186 Calculus II
Physics I
PHYS 107 Introduction to Physics I
\& PHYS 197 and Introduction to Physics I Lab
or
PHYS 101 Physics I
\& PHYS 191 and Physics I Lab
Physics II 4

| PHYS 108 | Introduction to Physics II |
| :--- | :--- |
| \& PHYS 198 | and Introduction to Physics II Lab |
| or |  |
| PHYS 102 | Physics II |
| \& PHYS 192 | and Physics II Lab |

Total Credits

## B.A. Degree

Recognizing that many students have a distinct interest in Biology, yet possess diverse career goals, the Department offers the B.A. degree with a relatively large number of electives. Students should use these electives to either minor or concentrate in any of the humanities, social science or business disciplines. This program is not recommended
for students wishing to go on to medical/professional school, graduate studies in Biology, or physical therapy programs unless other prerequisites are met. The B.A. program is intended to help students obtain employment in medical and pharmaceutical sales, medical writing, careers in public health and safety and the insurance industry as it relates to health care.

## Required Courses for the B.A. Degree

| BIOL 111 | General Biology I (Co-requisite BIOL 113) | 4 |
| :--- | :--- | ---: |
| BIOL 113 | General Biology I Laboratory (Co-requisite BIOL 111) | 0 |
| BIOL 112 | General Biology II (Co-requisite BIOL 114) | 4 |
| BIOL 114 | General Biology II Laboratory (Co-requisite BIOL 114) | 0 |
| BIOL 217 | Genetics (Co-requisite BIOL 218) | 4 |
| BIOL 218 | Genetics - Lab (Co-requisite BIOL 217) | 0 |
| BIOL 223 | Ecology (Co-requisite BIOL 220) | 4 |
| BIOL 220 | Ecology Lab (Co-requisite BIOL 223) | 0 |
| BIOL 231 | Evolution (Co-requisite BIOL 232) | 4 |
| BIOL 232 | Evolution Laboratory (Co-requisite BIOL 231) | 0 |
| BIOL 404 | Biology Colloquium I | 1 |
| BIOL 414 | Biology Colloquium II | 1 |
| Biology Electives (choose a combination of courses from the list below to total |  |  |
| at least 14 credits.) | $\mathbf{1 4}$ |  |

Total Credits ..... 36
Biology Electives for the B.A. with Their Co-Requisite Labs ${ }^{1}$ (choose a combination to total at least 14 credits)
BIOL 207 Anatomy and Physiology I (Co-requisite BIOL 209) ..... 4
BIOL 209 Anatomy And Physiology Lab I (Co-requisite BIOL 207) ..... 0
BIOL 208 Anatomy and Physiology II (Co-requisite BIOL 210) ..... 4
BIOL 210 Anatomy \& Physiology II Lab (Co-requisite BIOL 208) ..... 0
BIOL 225 Microbiology (Co-requisite BIOL 226) ..... 4
BIOL 226 Microbiology Lab (Co-requisite BIOL 225) ..... 0
BIOL 301 Comparative Chordate Anatomy (Co-requisite BIOL 313) ..... 4
BIOL 313 Compar Chordate Anatomy-Lab (Co-requisite BIOL 301) ..... 0
BIOL 302 Developmental Biology (Co-requisite BIOL 335) ..... 4
BIOL 335 Developmental Biology Lab (Co-requisite BIOL 302) ..... 0
BIOL 304 Invertebrate Zoology ..... 4
BIOL 305 Plant Biology (Co-requisite BIOL 303) ..... 4
BIOL 303 Plant Biology Laboratory (Co-requisite BIOL 305) ..... 0
BIOL 318 Advances in Nutrition ..... 2
BIOL 319 Cellular BioChemistry/Physiology (Co-requisite BIOL 323) ..... 4
BIOL 323 Cellular Biochemistry/Physiology Laboratory (Co-requisite ..... 0BIOL 319)

| BIOL 324 | Animal Physiology Laboratory (Co-requisite BIOL 320) | 0 |
| :--- | :--- | ---: |
| BIOL 321 | Molecular Cell Biology (Co-requisite BIOL 322) | 4 |
| BIOL 322 | Molecular Cell Biology Lab (Co-requisite BIOL 321) | 0 |
| BIOL 326 | Animal Behavior (Co-requisite BIOL 327) | 4 |
| BIOL 327 | Animal Behavior Lab (Co-requisite BIOL 326) | 0 |
| BIOL 405 | Neurobiology (Co-requisite BIOL 407) | 4 |
| BIOL 407 | Neurobiology - Lab (Co-requisite BIOL 405) | 0 |
| BIOL 409 | Marine Biology | 4 |
| BIOL 426 | Immunology | 4 |
| BIOL 431 | Freshwater Ecology | 4 |
| BIOL 432 | Estuarine and Coastal Ecology | 4 |
| BIOL 441 | Cardiovascular Biology | 3 |
| BIOL 310 | Research in Biology for Juniors | 2 |
| BIOL 311 | Research in Biology for Juniors | 2 |
| BIOL 317 | Research in Biology for Juniors | 3 |
| BIOL 360 | Independent Study in Biology for Juniors | 2 |
| BIOL 375 | Internship for Juniors | 2 |
| BIOL 400 | Research in Biology | 1 |
| BIOL 406 | Special Topics: in Biology | 4 |
| BIOL 410 | Research in Biology for Seniors | 2 |
| BIOL 411 | Research in Biology for Seniors | 2 |
| BIOL 413 | Research in Biology for Seniors | 3 |
| BIOL 460 | Independent Study in Biology | $1-3$ |
| BIOL 475 | Internship for Seniors | 3 |

1 A student may take 9 Biology credits in Research and/or Independent Study. However, a maximum of 3 credits may be in Independent Study.

## Cognate Requirements for the B.A. Degree

CHEM 101 General Chemistry I (Co-requisite CHEM 103) 3
CHEM $103 \quad$ General Chemistry Laboratory I (Co-requisite CHEM 101) 1
CHEM 102 General Chemistry II (Co-requisite CHEM 104) 3
CHEM $104 \quad$ General Chemistry Laboratory II (Co-requisite CHEM 102) 1
CHEM 319 Organic Chemistry I 3
CHEM $320 \quad$ Organic Chemistry II 3
MATH 100 Pre-Calculus Mathematics 3
MATH $230 \quad$ Elementary Statistics 3
Physics I 4
PHYS 107 Introduction to Physics I
\& PHYS 197 and Introduction to Physics I Lab

| PHYS 101 | Physics I |
| :--- | :--- |
| \& PHYS 191 | and Physics I Lab |
| Physics II |  |
| PHYS 108 | Introduction to Physics II |
| \& PHYS 198 | and Introduction to Physics II Lab |
| or |  |
| PHYS 102 | Physics II |
| \& PHYS 192 | and Physics II Lab |

Total Credits

## Minors

A minor requires 15 credits in Biology courses planned in consultation with and approval of the Chair of the Biology Department. Eight of these credits must be the General Biology sequence (BIOL 111-114). The remaining credits must be chosen from courses that satisfy B.S. major requirements.

## Grade Requirements

Majors and minors must attain a minimum grade of C in all biology courses. Prerequisites for upper level Biology courses: C or better in General Biology I (BIOL 111 and BIOL 113) and C or better in General Biology II (BIOL 112 and BIOL 114) or the equivalents are required.

## Registration for Advanced Courses

Permission of the academic advisor of the Biology Department is required for registration in all courses at the 300 and 400 levels.

## Courses for Non-Biology Majors

The following courses are offered for and are restricted to students majoring in departments other than Biology.

BIOL 103 Introduction to Biology 3
BIOL $131 \quad$ Principles of Biology I (Co-requisite BIOL 133) 4
BIOL $133 \quad$ Principles of Biology Lab I (Co-requisite BIOL 131) 0
BIOL $132 \quad$ Principles of Biology II (Co-requisite BIOL 134) 4
BIOL $134 \quad$ Principles of Biology Lab II (Co-requisite BIOL 132) 0
BIOL 221 Introductory Nutrition 3
BIOL 222 Biology for Engineers 3
BIOL 441 Cardiovascular Biology 3

## PLANS OF STUDY

## Bachelor of Science in Biology

First Year
Fall Credits Spring
Credits
BIOL 111
BIOL 113
CHEM 101
CHEM 103
MATH 155 or 185
SCI 100
4 BIOL 1124
0 BIOL 1140
3 CHEM 1023
1 CHEM 1041
3 MATH 156 or 1863
1 SCI 101 1
ENGL 110
3 RELS $110 \quad 3$
15
15
Second Year
Fall Credits Spring Credits
BIOL 231
4 BIOL $217 \quad 4$
BIOL 232
0 BIOL 2180
BIOL 223 4 CHEM 320 3
BIOL $220 \quad 0$ CHEM 324
CHEM 319 3 Social Sciences 3
CHEM $323 \quad 2$ Elective 3
Modern Language 3 Modern Language 3
Third Year

| Fall | Credits | Spring |
| :--- | :---: | :---: |
| BIOL Molecular Elective | 4 BIOL Organismal Elective | Credits |

PHYS 107 (\& PHYS 197) 4 PHYS 108 (\& PHYS 198) 4
HIST 1503 3 PHIL 1503
ENGL 1503 MUSC 150 or ART 1503
RELS Catholic Studies 3 CMPT 155 3
17

## Fourth Year

Fall
Credits Spring
Credits
BIOL 404
BIOL Organismal Elective
BIOL Elective
RELS Global/Contemporary
Social Sciences
1 BIOL $414 \quad 1$
4 BIOL Molecular Elective 4
2 BIOL Elective 2
3 PHIL 213 or 2143
3 Electives 6

Total Credits: 130

## Bachelor of Arts in Biology

First Year
Fall
BIOL 111
BIOL 113
CHEM 101
CHEM 103
SCI 100
ENGL 110
Modern Language
Credits Spring Credits
4 BIOL 1124
0 BIOL 1140
3 CHEM 1023
1 CHEM 104 1
1 SCI 101 1
3 RELS 1103
3 Modern Language 3
15
Second Year
Fall
BIOL 231
Credits Spring
Credits
4 BIOL 217
4
BIOL 232
0 BIOL 218
0
BIOL 223 4 MATH 230 3
BIOL 220
0 CHEM 3203
CHEM 319
3 HIST 1503
MATH 100
3 Social Sciences 3
CMPT 1553
17
Third Year
Fall
BIOL Elective
PHYS 107 (\& PHYS 197)
MUSC 150 or ART 150
Social Sciences
Credits Spring
Credits
4 BIOL Elective 4
4 PHYS 108 (\& PHYS 198) 4
3 ENGL 1503
3 PHIL 1503
Free Elective 3 Free Elective 3
17

## Fourth Year

Fall
Credits Spring
Credits
BIOL 404
1 BIOL 414
BIOL Elective
4 BIOL Elective 2
RELS Catholic Studies
3 RELS Global/Contemporary
Free Electives
8 PHIL 213 or 214

Total Credits: 130

## Computer Science

Dr. Igor Aizenberg
Chair of the Department

## Computer Science at Manhattan

Computer Science prepares students for work in a number of computer-related fields as software engineers, designers of algorithms and designers of applications in various areas.

The Computer Science Department offers B.S. and B.A. degrees in Computer Science and provides the opportunity to pursue an interdisciplinary minor.

The B.S. Computer Science undergraduate program is accredited by the Computing Accreditation Commission of ABET.

The Computer Science degree combines depth in all aspects of modern Computer Science theory with the development of high level skills in computer programming and design of algorithms.

The program includes introduction to computer programming, object-oriented programming beginning with C++ and then Java, data structures and algorithms, discrete structures and fundamentals of discrete mathematics, systems programming with Linux, operating systems, databases, computer organization, computer security, numerical computation, computer networks, software engineering and capstone project design, plus electives in programming languages (Python, R, Matlab, other languages), cloud computing, artificial intelligence, artificial neural networks and machine learning, data mining, web programming, parallel computing, blockchain technology, mobile computing, and cybersecurity.

There is a concentration area in Machine Learning and Intelligence within a B.S. degree, which includes the courses Neural Networks and Learning Systems, Artificial Intelligence, and Data Mining.

Students are encouraged to participate in programming contests such as the international ACM Collegiate programming contest and summer programs such as Google Summer of Code or research programs held at off-campus locations. With a faculty sponsor, a student may apply for support for an on-campus research project during the summer. Every year students present at the Manhattan College annual student research conference and publish in The Manhattan Scientist journal.

The Department started a graduate program (M.S.) in Computer Science in 2018. This program includes a special one year option for those students who received their undergraduate degree in Computer Science from Manhattan College. Staying only for one more year in the College and taking 24 more credits ( 8 courses or 6 courses and Master Thesis/Project) students may get their M.S. degree in Computer Science.

## Mission Statement

The Computer Science Department strives for excellence in giving our students knowledge through comprehensive educational programs, research, dissemination
through scholarly publications, and service to the profession, the community, the state, and the nation.

## Program Educational Objectives

Within a few years after their graduation, graduates of the Manhattan College Computer Science Program will:

1. Have professional careers in industry, government, academia or entrepreneurship or will be engaged in advanced studies.
2. Demonstrate effective teamwork or leadership, with integrity and ethical considerations in their work.
3. Continue to enhance their knowledge and adapt to changes in technology as well as a varied and globalized society.

## Program Learning Outcomes

Graduates of the program will have an ability to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

The Computer Science programs employ the standard set of ABET student learning outcomes for computing programs.

## Degree Plans

General Requirements: Major courses should be taken in accordance with the PLAN OF STUDY listed below. The order in which School of Science core courses are taken is flexible. A minimum grade of C in each of the major courses is required. Before taking any major course, the student must obtain a grade of $C$ or better in the prerequisite courses.

## Major Computer Science

A major program in computer science is available in the School of Science within either a curriculum leading to a Bachelor of Science degree or a curriculum leading to a Bachelor of Arts degree.

## B.S. in Computer Science

The Department has been working continuously on keeping its B.S. program in such a rapidly developing area as Computer Science up to date. Thus some changes, which are also important for ABET accreditation, were made recently.
Students entered in 2019 must complete the following:
MATH 185 Calculus I 3

MATH 186 Calculus II 3
MATH 351 Computational Linear Algebra \& Statistics for Computer 3 Science
CMPT 101 Computer Science I 3
CMPT 102 Computer Science II 3
CMPT $239 \quad$ Data Structures \& Algorithms 4
CMPT 258 Database Systems I 3
EECE 229 Introduction to Digital Systems 3
CMPT 312 Operating Systems 3
CMPT 334 Computer Organization 3
CMPT 335 Discrete Structures 3
CMPT 353 Systems Programming 3
CMPT 360 Object Oriented Design with Java 3
CMPT 439 Numerical Computation 3
CMPT 456 Software Engineering 3
CMPT 466 Computer Networks 3
CMPT 490 Capstone 4
PHYS 101 Physics I 4
\& PHYS 191 and Physics I Lab
PHYS 102 Physics II 4
\& PHYS 192 and Physics II Lab
PHYS $221 \quad$ Physics of Digital Systems 4
Approved Departmental Electives 15
SCI 100 Science Orientation Seminar I 1
SCI $101 \quad$ Science Orientation Seminar II 1
Total Credits 82
Students entered starting from 2020 have to follow the curriculum below:
MATH 185 Calculus I 3
MATH 186 Calculus II 3
MATH 351 Computational Linear Algebra \& Statistics for Computer 3 Science
CMPT 101 Computer Science I 3
CMPT 102 Computer Science II (PHYS 102 \& PHYS 192) 3
CMPT 238 Data Structures and Algorithms - I 3
CMPT 240 Data Structures and Algorithms - II ..... 3
CMPT 258 Database Systems I ..... 3
EECE 229 Introduction to Digital Systems ..... 3
CMPT 312 Operating Systems ..... 3
CMPT 334 Computer Organization ..... 3
CMPT 335 Discrete Structures ..... 3
CMPT 353 Systems Programming ..... 3
CMPT 360 Object Oriented Design with Java ..... 3
CMPT 367 Computer Security ..... 3
CMPT 439 Numerical Computation ..... 3
CMPT 456 Software Engineering ..... 3
CMPT 466 Computer Networks ..... 3
CMPT 490 Capstone ..... 4
PHYS 101 Physics I ..... 4
\& PHYS 191 and Physics I Lab
PHYS 102 Physics II ..... 4
\& PHYS 192 and Physics II Lab
PHYS 221 Physics of Digital Systems ..... 4
Approved departmental electives ..... 15
SCI 100 Science Orientation Seminar I ..... 1
SCI 101 Science Orientation Seminar II ..... 1
Total Credits ..... 87
B.A. in Computer Science
Students entered in 2019 must complete the following:
MATH 185 Calculus I ..... 3
MATH 186 Calculus II ..... 3
MATH 351 Computational Linear Algebra \& Statistics for Computer ..... 3Science
CMPT 101 Computer Science I ..... 3
CMPT 102 Computer Science II ..... 3
CMPT 239 Data Structures \& Algorithms ..... 4
CMPT 258 Database Systems I ..... 3
EECE 229 Introduction to Digital Systems ..... 3
CMPT 312 Operating Systems ..... 3
CMPT 334 Computer Organization ..... 3
CMPT 335 Discrete Structures ..... 3
CMPT 353 Systems Programming ..... 3
CMPT 360 Object Oriented Design with Java ..... 3
CMPT 439 Numerical Computation ..... 3
CMPT 456 Software Engineering ..... 3
CMPT 466 Computer Networks ..... 3
CMPT 490 Capstone ..... 4
Approved departmental electives ..... 12
Three SCI 2xx courses ..... 9
SCI 100 Science Orientation Seminar I ..... 1
SCI 101 Science Orientation Seminar II ..... 1
Total Credits ..... 76
Students entered starting from 2020 have to follow the curriculum below:
MATH 185 Calculus I ..... 3
MATH 186 Calculus II ..... 3
MATH 351 Computational Linear Algebra \& Statistics for Computer ..... 3
Science
CMPT 101 Computer Science I ..... 3
CMPT 102 Computer Science II ..... 3
CMPT 238 Data Structures and Algorithms - I ..... 3
CMPT 258 Database Systems I ..... 3
EECE 229 Introduction to Digital Systems ..... 3
CMPT 312 Operating Systems ..... 3
CMPT 334 Computer Organization ..... 3
CMPT 335 Discrete Structures ..... 3
CMPT 353 Systems Programming ..... 3
CMPT 360 Object Oriented Design with Java ..... 3
CMPT 439 Numerical Computation ..... 3
CMPT 456 Software Engineering ..... 3
CMPT 466 Computer Networks ..... 3
CMPT 490 Capstone ..... 4
Approved departmental electives ..... 12
Three SCI 2xx courses ..... 9
SCI 100 Science Orientation Seminar I ..... 1
SCI 101 Science Orientation Seminar II ..... 1
Total Credits ..... 75

## Minor in Computer Science

The minor in Computer Science consists of a minimum of 15 credits. Specific requirements are listed below. A grade of at least C is required for all courses meeting the requirements for a minor in Computer Science. Note: CMPT 155 nor CMPT 214 will not be credited toward the minor in Computer Science.
Transfer Credit: At most one course transferred from another institution may be credited toward the fifteen credits required for a minor. A minimum of four courses, 12 credits, must be taken within the Department of Computer Science at Manhattan College.

## Application: When the required courses are completed, a student must get a Minor Form from the department secretary, fill it out and have it signed by the Chair of the Department. <br> Minor Requirement for Students in the School of Engineering

The following two courses are required:
CMPT 102 Computer Science II ..... 3
CMPT 238 Data Structures and Algorithms - I ..... 3
Two of the following nine courses are required:
CMPT 240 Data Structures and Algorithms - II ..... 3
CMPT 258 Database Systems I ..... 3
CMPT 312 Operating Systems ..... 3
CMPT 353 Systems Programming ..... 3
CMPT 360 Object Oriented Design with Java ..... 3
CMPT 367 Computer Security ..... 3
CMPT 439 Numerical Computation ..... 3
CMPT 456 Software Engineering ..... 3
CMPT 466 Computer Networks ..... 3
Electives: One other CMPT course at the 200-400 level (including any course from ..... 3 the list above), not including CMPT 155 or CMPT 214.
Minor Requirements for Students in the Schools of Liberal Arts, Business, Education and Science
The following three courses are required:
CMPT 101 Computer Science I ..... 3
CMPT 102 Computer Science II ..... 3
CMPT 238 Data Structures and Algorithms - I ..... 3
At least one course from the following list:
CMPT 240 Data Structures and Algorithms - II ..... 3
CMPT 258 Database Systems I ..... 3
CMPT 312 Operating Systems ..... 3
CMPT 335 Discrete Structures ..... 3
CMPT 353 Systems Programming ..... 3
CMPT 360 Object Oriented Design with Java ..... 3
CMPT 439 Numerical Computation ..... 3
CMPT 456 Software Engineering ..... 3
Electives: One other CMPT course at the 200-400 level (including any course fromthe list above), not including CMPT 155 or CMPT 214.

## PLAN OF STUDY

## Bachelor of Science in Computer Science

Students entered in 2019 shall follow the following plan of study:

## First Year

Fall Credits Spring Credits
CMPT 101
3 CMPT 102
MATH 185
3 CMPT 335 3

SCI 100
1 MATH 1863

Modern Language* 3 Modern Language** 3
RELS 110
3 ENGL 1103
LLRN 102
3 SCI 101 1
16
16

## Second Year

Fall
CMPT 239
CMPT 360
MATH 351

PHYS 101
\& PHYS 191
PHIL 150
Pr 17
17
3
ENGL 150316

Third Year
Fall
CMPT 353
CMPT 439
CMPT 466
EECE 229
RELS Catholic Studies
Credits
Spring
Credits
3 CMPT 3123
3 CMPT 3343
3 PHYS $221 \quad 4$
3 CMPT Elective 3
3 MUSC 150 or ART 1503
15
Fourth Year
Fall
Credits Spring
Credits
CMPT 456
CMPT Electives
RELS Global/Contemporary
Social science
HIST 150
3 CMPT 490
4
3 CMPT Electives 6
3 Free Electives 6
3 3

* One year sequence of a modern foreign language.

Students entered starting from 2020 shall follow the following plan of study:
First Year
Fall Credits Spring Credits
CMPT 101
3 CMPT 102
MATH 185
3 CMPT 335 3
SCI 100
1 MATH 186 3
Modern Language
3 Modern Language 3
RELS 110
3 ENGL 110
LLRN 102
3 SCI 101
16

## Second Year

Fall Credits Spring Credits
CMPT 238
3 CMPT 240
CMPT 360 3 CMPT 2583
MATH 351
3 PHYS 1024 \& PHYS 192
PHYS 101 4 Social Science 3
\& PHYS 191
PHIL 150 3 ENGL 150 3
16
Third Year
Fall
Credits Spring
Credits
CMPT 353
3 CMPT 3123

CMPT 439 3 CMPT 3343
CMPT 466
3 PHYS $221 \quad 4$
EECE 229 3 CMPT Elective 3
RELS Catholic Studies 3 MUSC 150 or ART $150 \quad 3$
15
Fourth Year
Fall
CMPT 456
Credits Spring
Credits
3 CMPT 367
3
CMPT Electives
6 CMPT 4904

RELS Global/Contemporary

3 CMPT Electives ..... 6
HIST 150 3 Social Science ..... 3

* One year sequence of a modern foreign language.


## Bachelor of Arts in Computer Science

Students entered in 2019 shall follow the following plan of study:

## First Year

Fall Credits Spring Credits
CMPT 101
MATH 185
3 CMPT 102

SCI 100
Modern Language
RELS 110
3 CMPT 335 3
1 MATH 1863
3 Modern Language 3
3 ENGL 1103
LLRN 102
3 SCI 101
16

## Second Year

Fall
CMPT 239
Credits Spring
Credits

CMPT 360
4 CMPT 258
3 CMPT Elective
SCI $2 x x^{* *}$
$3 \mathrm{SCl} 2 x x^{* *}$3

MATH 351

3 ENGL 150

PHIL 150
3 Social Science3

Third Year
Fall Credits Spring Credits
CMPT 353
3 CMPT 3123
CMPT 439
3 CMPT 3343
CMPT 466
3 RELS Catholic Studies 3
EECE 229
3 MUSC 150 or ART 1503
SCI 2xx
3 CMPT Elective 3
15
Fourth Year
Fall Credits Spring Credits
CMPT 456
3 CMPT 490
4
CMPT Elective 3 RELS Global/Contemporary 3
Free Electives 3 CMPT Elective 3
Social Science 3 Free Electives 6
HIST 1503

[^3]* One year sequence of a modern foreign language.
** Students may opt instead to take one (1) full year of a lab science (8 credits) in this case total credits for graduation is 123.

Students entered starting from 2020 shall follow the following plan of study:
First Year
Fall Credits Spring Credits
CMPT 101
MATH 185
3 CMPT 102

SCI 100
Modern Language
RELS 110
3 CMPT 335 3
1 MATH 1863
3 Modern Language 3
3 ENGL 1103
LLRN 102
3 SCI 1011

16 16
Second Year
Fall
CMPT 238
Credits Spring
Credits

CMPT 360
3 CMPT 258
3 SCI 2xx ** 3
SCI $2 x x^{* *}$
3 ENGL 1503
MATH 351
3 Social Science 3
PHIL 150
3 Free Elective 3
15
Third Year
Fall Credits Spring Credits
CMPT 353
3 CMPT 312
CMPT 439
3 CMPT 3343
CMPT 466
3 RELS Catholic Studies 3
EECE 229
3 MUSC 150 or ART 1503
SCI 2xx*
3 CMPT Elective 3
15
15
Fourth Year
Fall
CMPT 456
Credits Spring
Credits
3 CMPT 4904
CMPT Elective 3 RELS Global/Contemporary 3
Free Electives 3 CMPT Elective 6
Social Science 3 Free Electives 3
HIST 1503

Total Credits: 123

* One year sequence of a modern foreign language.
** Students may opt instead to take one (1) full year of a lab science (8 credits) in this case total credits for graduation is 122.


## Environmental Science

Yelda Hangun-Balkir, Ph.D. Program Director

Environmental issues represent some of the most important challenges facing the planet in the $21^{\text {st }}$ century. As the nation's focus on the environment continues to grow, there is an ever-increasing demand for environmental science jobs. If you're seeking a career in this field, you can look forward to a far more robust job market than graduates of many other disciplines according to the Bureau of Labor Statistics.

The goal of the Environmental Science program is to provide a foundation for understanding issues and solving problems involving our natural environment. It is an interdisciplinary science program that focuses on the state of the environment and serious environmental problems that the world faces. The program provides students with a strong science background focused on the environmental issues. Students will be expected to take a variety of courses in numerous departments. Through a series of academic courses and co-curricular activities, you will get hands-on experience and obtain the critical thinking and problem-solving skills necessary in order to solve the complex, interdisciplinary environmental problems facing the local community and society at large. The Environmental Sciences Program offers Bachelor of Science degree and a Bachelor of Arts degree in Environmental Sciences.

Our interdisciplinary science program is supported by a team of academic departments. Professors work closely with Environmental Sciences undergraduates as their study becomes more specialized. Such individual attention leads to fruitful partnerships when students become involved in research and other student-centered learning activities. Through coursework, projects and activities, you will develop scientific research, writing, and presentation skills.

## Degree Plans

The following programs are offered:

- Major in Environmental Science
- Bachelor of Science Degree
- Bachelor of Arts Degree
- Minor in Environmental Science


## Individual Attention and Mentoring

Students will receive individual attention during their entire undergraduate career. Each student plans a course of study in close cooperation with a faculty advisor, and the student's progress is closely coordinated with developing interests. Undergraduates are strongly encouraged to pursue independent research as an essential part of their educational program.

## Career Choices

According to Bureau of Labor Statistics, employment of environmental scientists is projected to grow faster than the average for all occupations. You will be prepared to enter government, academic, private or non-profit careers or to continue your education in a variety of scientific disciplines. Graduates would be trained to work in fields including
environmental consulting, laboratory or field research, environmental education, medical school, environmental law, engineering, toxicology and waste management.

## Major in Environmental Science

A minimum grade of $C$ is required for all courses in the major. Students in this program must maintain a 2.8 GPA in the major by the end of the fourth semester. Students who do not maintain this GPA are advised not to continue in the major.

The following courses are required for all bachelors degrees (B.A. and B.S.). In addition, students pursuing a B.S. degree take 3 major elective courses* and students pursuing a B.A. degree take 2 major elective courses*.

| ENSC 101 | Intro to Environmental Science | 3 |
| :--- | :--- | ---: |
| ENSC 201 | Sustainable Science and Technology | 3 |
| ENSC 301 | Environmental Science I | 3 |
| ENSC 302 | Environmental Science II | 4 |
| CHEM 101 | General Chemistry I | 3 |
| CHEM 103 | General Chemistry Laboratory I | 1 |
| CHEM 102 | General Chemistry II | 3 |
| CHEM 104 | General Chemistry Laboratory II | 1 |
| CHEM 302 | Analytical Chemistry | 5 |
| CHEM 319 | Organic Chemistry I | 3 |
| CHEM 323 | Organic Chemistry Laboratory I | 2 |
| BIOL 111 | General Biology I | 4 |
| BIOL 113 | General Biology I Laboratory | 0 |
| BIOL 112 | General Biology II | 4 |
| BIOL 114 | General Biology II Laboratory | 0 |
| BIOL 223 | Ecology | 4 |
| BIOL 220 | Ecology Lab | 0 |
| MATH 185 | Calculus I (MATH 155 or MATH 185) | 3 |
| MATH 186 | Calculus II (MATH 156 or MATH 186) | 3 |
| MATH 336 | Applied Statistics | 3 |
| PHYS 107 | Introduction to Physics I | 4 |
| PHYS 197 | Introduction to Physics I Lab | 0 |
| PHYS 108 | Introduction to Physics II | 4 |
| PHYS 198 | Introduction to Physics II Lab | 0 |
| CMPT 155 | Computer Applications for Life Sciences | 3 |
| SOC 225 | Telling Stories with Maps | 3 |
| Total Credits |  | 66 |
| Students pursing the B.S. degree will also need to take: | 1 |  |
| CHEM 335 | Inorganic Chemistry | 3 |
| CHEM 460 | Chemical Research | 3 |

## *Major Elective Courses

CHEM 309 Physical Chemistry I ..... 3
CHEM 433 Biochemistry I ..... 3
CHEM 111 Nanoscience I ..... 3
CHEM 320 Organic Chemistry II ..... 3
CHEM 323 Organic Chemistry Laboratory I ..... 2
CHEM 333 Solid State Materials ..... 4
BIOL 217 Genetics ..... 4
BIOL 225 Microbiology ..... 4
BIOL 231 Evolution ..... 4
BIOL 305 Plant Biology ..... 4
BIOL 320 Animal Physiology ..... 4
ENGS 204 Environmental Engineering Principles I ..... 3
ENVL 517 Environmental Law ..... 3
SOC 350 Advanced Topics in Geographic Information Systems (GIS) ..... 3
SOC 334 Sustainable Development ..... 3
POSC 223 Environmental Politics ..... 3
PHP 418 Introduction to Environmental Health ..... 3
ENVG 510 Hazardous Waste Management ..... 3
ENVG 506 Water and Wastewater Treatment Processes ..... 3
SCI 202 Introduction Geology ..... 3
SCI 210 Introductory Oceanography ..... 3
Minor in Environmental ScienceThe minor in Environmental Science requires the following courses for a total of 17credits. A minimum grade of C is required for all courses.
ENSC 101 Intro to Environmental Science ..... 3
CHEM 101 General Chemistry I ..... 3
CHEM 103 General Chemistry Laboratory I ..... 1
CHEM 102 General Chemistry II ..... 3
CHEM 104 General Chemistry Laboratory II ..... 1
ENSC 301 Environmental Science I ..... 3
CHEM 319 Organic Chemistry I ..... 3
PLANS OF STUDY
Bachelor of Science in Environmental Science
First Year
Fall Credits Spring Credits3 CHEM 1041

| CHEM 103 |  | 1 BIOL 112 | 4 |
| :---: | :---: | :---: | :---: |
| BIOL 111 |  | 4 BIOL 114 | 0 |
| BIOL 113 |  | 0 MATH 156 or 186 | 3 |
| MATH 155 or 185 |  | 3 SCI 101 |  |
| SCI 100 |  | 1 RELS 110 or ENGL 110 | 3 |
|  | 15 |  | 15 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| BIOL 223 |  | 4 ENSC 201 |  |
| BIOL 220 |  | 0 CHEM 335 | 3 |
| CHEM 319 |  | 3 MATH 336 | 3 |
| CHEM 323 |  | 2 Modern Language | 3 |
| Modern Language |  | 3 SOC 225 | 3 |
| CMPT 155 |  | 3 ECON/POSC/PSYC/SOC | 3 |
| ENGL 110 (or RELS 110) |  | 3 |  |
|  |  | 8 | 18 |

Third Year

| Fall | CreditsSpring <br> ENSC 301$\quad$ 3 ENSC 302 | Credits |
| :--- | ---: | ---: |

CHEM 302
PHYS 107
Free Elective
5 PHYS $108 \quad 4$

4 PHIL 1503
3 RELS Catholic Studies 3
PHIL 213 or LLRN 1023
15

## Fourth Year

| Fall | Credits Spring | Credits |
| :--- | :---: | ---: |
| Major Elective | 3-4 Major Elective | $3-4$ |
| Major Elective | 3-4 Free Electives | 6 |
| RELS Contemporary Studies | 3 MUSC 150 or ART 150 | 3 |
| ECON/POSC/SOC/PSYC | 3 ENGL 150 | 3 |
| HIST 150 | 3 Research | 1 |
|  | $\mathbf{1 5 - 1 7}$ | $\mathbf{1 6 - 1 7}$ |

Total Credits: 129-132

## Bachelor of Arts in Environmental Science

First Year
Fall
ENSC 101
CHEM 101
CHEM 103
BIOL 111

Credits Spring Credits
3 CHEM 1023
3 CHEM 104 1
1 BIOL 1124
4 BIOL 1140

| BIOL 113 |  | 0 MATH 156 or 186 | 3 |
| :---: | :---: | :---: | :---: |
| MATH 155 or 185 |  | 3 SCI 101 | 1 |
| SCI 100 |  | 1 RELS 110 or ENGL 110 | 3 |
|  |  | 5 | 15 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| BIOL 223 |  | 4 ENSC 201 | 3 |
| BIOL 220 |  | 0 MATH 336 | 3 |
| CHEM 319 |  | 3 ECON/POSC/SOC/PSYC 150 | 3 |
| CHEM 323 |  | 2 Modern Language | 3 |
| Modern Language |  | 3 SOC 225 | 3 |
| CMPT 155 |  | 3 |  |
| ENGL 110 (or RELS 110) |  | 3 |  |
|  |  | 8 | 15 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| ENSC 301 |  | 3 ENSC 302 | 4 |
| CHEM 302 |  | 5 PHYS 108 | 4 |
| PHYS 107 |  | 4 PHIL 150 | 3 |
| Free Elective |  | 3 RELS Catholic Studies | 3 |
|  |  | PHIL 213 or LLRN 102 | 3 |
|  |  | 5 | 17 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| Major Elective |  | -4 Major Elective | 3-4 |
| Two Free Electives |  | 6 RELS Contemporary Global | 3 |
| ECON/POSC/SOC/PSYC 150 |  | 3 MUSC or ART 150 | 3 |
| HIST 150 |  | 3 Free Elective | 3 |
|  |  | ENGL 150 | 3 |
|  | 15-1 |  | 15-16 |

Total Credits: 125-127

## Game Design \& Production

Videogames have become a multi-billion-dollar industry, surpassing all other forms of entertainment. From consoles to PCs, mobile devices and immersive media, gaming has launched several new career paths, and companies are actively seeking graduates with skills in these areas. Digital games have provided new forms of socialization, political organization, and economic power, and they are at the forefront of the organization of a virtual society.

Game Design and Production explores gaming history and cultures while teaching critical skills to work in this growing industry. This interdisciplinary program offers a major with three concentrations: Coding, Design, and Narrative, and a minor.

## MAJOR

Game Design and Production is a 120-credit program for the B.A. degree and a 125-credit program for the B.S. degree.
Majors in this program must complete 30 credits and follow one of three concentrations as outlined below. Students who follow the Coding concentration are matriculated in the Kakos School of Science and will earn a B.S. degree upon graduation; students following the Design or Narrative concentration are matriculated in the School of Liberal Arts and will earn a B.A. degree upon graduation.
Upon completion of a major in Game Design \& Production, students are expected to:

1. complete the planning, design, and building of digital games
2. describe the history, structure, and issues of the videogame industry
3. work collaboratively to apply their knowledge and skills
4. analyze the ethical issues they may encounter while creating an interactive game.

All majors will complete:
ART 134 The Culture of Games 3
CMPT 101 Computer Science I 3
COMM 365 Game Design \& Development 3
ART 407 Senior Game Seminar 3
In addition, students will complete one of the following three 18-credit concentrations:

## CODING (B.S. Kakos School of Science)

| CMPT 102 | Computer Science II | 3 |
| :--- | :--- | :--- |
| CMPT 238 | Data Structures and Algorithms - I | 3 |
| CMPT 335 | Discrete Structures | 3 |
| CMPT 360 | Object Oriented Design with Java | 3 |
| CMPT 420 | Artificial Intelligence | 3 |

## DESIGN (B.A. School of Liberal Arts)

| ART 213 | Digital Drawing | 3 |
| :--- | :--- | :--- |
| ART 307 | 3D Design, Modeling and Visualization | 3 |
| ART 309 | Animation | 3 |

and 9 credits of elective courses as described below.

## NARRATIVE (B.A. School of Liberal Arts)

COMM 304 Digital Storytelling 3
COMM 359 Interactive Narratives 3
DASH $310 \quad$ VR: Perception \& Production
and 9 credits of elective courses as described below.

## Elective Courses

Elective courses that satisfy major and minor requirements are approved by the program director and are related to gaming, digital production, coding, and the culture, marketing, and effects of videogames. Majors may apply 3 credits from an internship in the gaming industry.

## Suggested elective courses

Courses required in other GAME concentrations, including:

| ART 213 | Digital Drawing | 3 |
| :--- | :--- | :--- |
| ART 307 | 3D Design, Modeling and Visualization | 3 |
| ART 309 | Animation | 3 |
| CMPT 102 | Computer Science II | 3 |
| CMPT 238 | Data Structures and Algorithms - I | 3 |
| COMM 304 | Digital Storytelling | 3 |
| COMM 359 | Interactive Narratives | 3 |
| DASH 310 | VR: Perception \& Production | 3 |
| Other suggested elective courses: |  |  |
| ART 214 | Introduction to Graphic Design | 3 |
| ART 380 | Digital Video Art: Editing and Production | 3 |
| COMM 222 | Introduction to Story and Post-Production | 3 |
| COMM 306 | Web Design | 3 |
| COMM 316 | Scriptwriting | 3 |
| DASH 200 | Introduction to Digital Arts \& Humanities | 3 |
| MUSC 390 | Digital Audio Recording and Editing | 3 |

In addition, students may enroll in specific special topics courses and other elective courses as approved by the Program Director.

## MINOR

Students wishing to earn a minor in Game Design \& Production must complete 15 credits, which include:

| ART 134 | The Culture of Games | 3 |
| :--- | :--- | :--- |
| COMM 365 | Game Design \& Development | 3 |

and 9 credits of elective courses as approved by the program director.

## Suggested elective courses

Courses required in GAME concentrations, including:

| ART 213 | Digital Drawing | 3 |
| :--- | :--- | :--- |
| ART 307 | 3D Design, Modeling and Visualization | 3 |
| ART 309 | Animation | 3 |
| CMPT 101 | Computer Science I | 3 |
| CMPT 102 | Computer Science II | 3 |
| CMPT 238 | Data Structures and Algorithms - I | 3 |
| COMM 304 | Digital Storytelling | 3 |
| COMM 359 | Interactive Narratives | 3 |
| DASH 310 | VR: Perception \& Production | 3 |
| Other suggested elective courses: |  |  |
| ART 214 | Introduction to Graphic Design | 3 |
| ART 380 | Digital Video Art: Editing and Production | 3 |
| COMM 222 | Introduction to Story and Post-Production | 3 |
| COMM 306 | Web Design | 3 |
| COMM 316 | Scriptwriting | 3 |
| DASH 200 | Introduction to Digital Arts \& Humanities | 3 |
| MUSC 390 | Digital Audio Recording and Editing | 3 |

In addition, students may enroll in specific special topics courses and other elective courses as approved by the Program Director.

A minimum grade of $C$ is required for courses to satisfy all major and minor requirements. Minors must have a contract signed and approved by the program director.

# Mathematics 

Dr. Helene R. Tyler<br>Chair of the Department<br>Dr. Matthew Jura<br>Assistant Chair of the Department

The Department of Mathematics plays a vital role in the education of all students at Manhattan College through its offerings of programs for our majors as well as through the many support courses it offers for other departments across the college. We provide students the mathematical skills necessary to be successful in their field of study whether it is mathematics, science, engineering, business, education or the liberal arts.

The mathematics curriculum for our majors allows students to prepare for careers in business, industry, and teaching, as well as to prepare for the study of mathematics at the graduate level. Coursework in linear algebra, abstract algebra, analysis, probability, and statistics prepare students for further work in pure or applied mathematics. Elective courses, such as Operations Research, Machine Learning, and Mathematical Modeling, provide students the tools to analyze data in various areas of science, finance, and engineering.

Our classes are small, giving students the opportunity to build strong relationships with faculty. Students are invited to participate in national mathematics competitions such as the Putnam Exam. Many students participate in undergraduate research projects, both internal and external; funds are available to support these projects during the summer.
Students are encouraged to present their work at national and regional meetings, including the Spuyten Duyvil Undergraduate Mathematics Conference, which was founded by the Mathematics Department at Manhattan College.

Any student wishing to participate in the Study Abroad program will find the Department makes every effort to provide the needed support to allow them to finish their required course work.

Students in the Department of Mathematics are eligible to participate in the School of Science Honors Program. See the School of Science catalog entry for more information on this program.

The Department supports a chapter of the national mathematics honor society, Pi Mu Epsilon, which is dedicated to the promotion of mathematics and recognition of students who successfully pursue mathematical understanding. Students are nominated for membership in this honor society. The Department also nominates students who make presentations at conferences for membership in Sigma Xi, an international honor society for science and engineering.

## Degree Plans

The Department of Mathematics offers the following programs:

- Major in Mathematics
- Bachelor of Science Degree
- Bachelor of Arts Degree
- Second Major in Mathematics
- Concentration in Applied Mathematics
- Minor in Mathematics

The Department also offers graduate programs in Mathematics. We have a seamless 5 -year Bachelor-Masters program. A student in this 5 -year B.A./B.S.-M.S. program graduates with a B.A./B.S. in Mathematics and an M.S. in Applied Mathematics-Data Analytics. In addition, the Department offers an M.S. in Mathematics. See the Graduate Catalog for more details.

The Department works closely with the Division of Education on the requirements for the B.S. in Adolescence Education Mathematics, which prepares students to teach at the secondary level, and the Mathematics emphasis in the B.S. in Childhood Education, which prepares students to teach at the elementary level. The requirements for the B.S. in Adolescence Education Mathematics are listed below under Second Major in Mathematics.

## General Requirements

Courses should be taken in accordance with the Plans of Study listed below. These plans incorporate the School of Science Core Curriculum. Care should be taken in planning your program since some courses are not offered every semester. A minimum grade of $C$ is required in each of the courses used for any of the listed programs (major, second major, concentration, or minor).

With the approval of the Department Chair, well-prepared undergraduate students can take graduate mathematics courses to count toward their mathematics electives.

## Major in Mathematics

B.S. in Mathematics ( 126 credit hours)

MATH 158 Introduction to Mathematical Computation
or CMPT 102
Computer Science II
MATH 185 Calculus I ${ }^{1}$ 3
MATH 186 Calculus II ${ }^{1}$ 3
MATH 243 Foundations for Higher Mathematics 3
MATH 285 Calculus III $^{1} 3$
MATH 331 Probability 3
MATH 336 Applied Statistics 3
MATH 372 Linear Algebra I 3
MATH 377 Algebra I 3
MATH 387 Analysis I 3
MATH 471 Linear Algebra II 3
MATH $478 \quad$ Algebra II 3
MATH $489 \quad$ Problem Seminar 3
MATH 490 Complex Analysis 3
MATH Electives ${ }^{2} \quad 6$
CMPT 101 Computer Science I 3

| PHYS 101 | Physics I |  |
| :--- | :--- | ---: |
| \& PHYS 191 | and Physics I Lab | 4 |
| PHYS 102 | Physics II |  |
| \& PHYS 192 | and Physics II Lab | 4 |
| Natural Sciences |  | 67 |
| Total Credits | 67 |  |
|  |  |  |
| Students who major in Mathematics and are selected for the honors sequence will be |  |  |
| enrolled in the honors sections of Calculus I, II, and III (MATH 187, 188, and 287). |  |  |
| MATH Electives can be taken from the following list of Mathematics courses: 286, 361, |  |  |
| 386, 432, 433, 448, 455, 456, 457, 464, 488, and select topics courses by permission |  |  |
| of the Chair. Graduate mathematics courses can also be used as electives with |  |  |
| approval of the Chair. |  |  |

## B.A. in Mathematics (122 credit hours)

| MATH 158 | Introduction to Mathematical Computation |  |
| :--- | :--- | :--- |
| or CMPT 102 | Computer Science II | 3 |
| MATH 185 | Calculus I $^{1}$ | 3 |

MATH $186 \quad$ Calculus II ${ }^{1}$ ..... 3
MATH 243 Foundations for Higher Mathematics ..... 3
MATH $285 \quad$ Calculus III ${ }^{1}$ ..... 3
MATH $331 \quad$ Probability ..... 3
MATH 336 Applied Statistics ..... 3
MATH 372 Linear Algebra I ..... 3
MATH 377 Algebra I ..... 3
MATH 387 Analysis I ..... 3
MATH 471 Linear Algebra II ..... 3
MATH 478 Algebra II ..... 3
MATH 489 Problem Seminar ..... 3
MATH 490 Complex Analysis ..... 3
MATH Electives ${ }^{2}$ ..... 6
CMPT 101 Computer Science I ..... 3
3 SCl Courses ${ }^{3}$ ..... 9
Total Credits ..... 60

1 Students who major in Mathematics and are selected for the honors sequence will be enrolled in the honors sections of Calculus I, II, and III (MATH 187, 188, and 287).
2 MATH Electives can be taken from the following list of Mathematics courses: 286, 361, 386, 432, 433, 448, 455, 456, 457, 464, 488, and select topics courses by permission of the Chair. Graduate mathematics courses can also be used as electives with approval of the Chair.

3
Students may opt for one full year of a lab science (8 credits). In this case, the student will graduate with 121 credits. Students may also opt to replace the 3 SCI XXX courses with 9 credits of courses within a single discipline in the School of Science.

## Second Major in Mathematics

## Students from the Schools of Liberal Arts, Business, Engineering, and Science

To complete a second major in Mathematics, students from the above Schools will need to take a total of 36 credits of mathematics courses from the Mathematics major courses listed above (excluding MATH 158). These credits must include MATH 185 (or 187), 186 (or 188), 243, 285 (or 287), 336 (or CEEN 308), 372, 377, and 387, and at least 2 courses at the 400 level. Graduate Mathematics courses also may be used as electives with approval of the Department Chair.

## Students from the Division of Education

Students pursuing a degree in Adolescence Education Mathematics earn a Second Major in Mathematics by completing the following sequence as required by their degree program.
B.S. in Adolescence Education Mathematics

| MATH 158 | Introduction to Mathematical Computation | 3 |
| :--- | :--- | :--- |
| or CMPT 102 | Computer Science II |  |
| MATH 185 | Calculus I | 3 |
| MATH 186 | Calculus II | 3 |
| MATH 243 | Foundations for Higher Mathematics | 3 |
| MATH 285 | Calculus III | 3 |
| MATH 328 | Fundamental Concepts of Secondary Mathematics | 3 |
| MATH 331 | Probability | 3 |
| MATH 336 | Applied Statistics | 3 |
| MATH 361 | Introduction to Higher Geometry | 3 |
| MATH 372 | Linear Algebra I | 3 |
| MATH 377 | Algebra I | 3 |
| MATH 387 | Analysis I | 3 |
| MATH 489 | Problem Seminar | 3 |
| CMPT 101 | Computer Science I | 3 |
| Total Credits |  | 42 |

* Sequencing of courses is very important in order to accommodate the requirements of student teaching.

Application: To pursue a Second Major in Mathematics, a student must get the appropriate form from the department, fill it out, and have it approved by the Department of Mathematics. An approved form will be forwarded to the appropriate dean.

A grade of at least C is required for all courses meeting the requirements for a Second Major in Mathematics.

## Concentration in Applied Mathematics

The Concentration in Applied Mathematics is designed to complement major study in a different discipline and prepare students to use mathematics in the workplace. The concentration requires 24 credits and offers more depth than the minor in Mathematics. A grade of at least $C$ is required for all courses meeting the requirements for a Concentration in Applied Mathematics.

The requirements are flexible. There is a required core of 12 credits which includes Calculus I-II-III (MATH 185/187, 186/188, 285/287) and Linear Algebra I (MATH 372)/Computational Linear Algebra \& Statistics for Computer Science (MATH 351). Students choose the remaining 12 credits from a list of approved courses, including Differential Equations (MATH 286), Probability (MATH 331), Applied Statistics (MATH 336), Partial Differential Equations (MATH 386), Machine Learning (MATH 457/MATG 557), Operations Research (MATH 455/MATG 555), Mathematical Modeling (MATH 456), Linear Algebra II (MATH 471)/Advanced Linear Algebra with Applications (MATG 571), Complex Analysis (MATH 490), and Topics in Mathematics (MATH 491/492). Other graduate Mathematics courses may be used with approval of the Department Chair.

Students must select at least one two-term sequence for depth. The two-term sequences are: 372 and ( 471 or 571 ); ( 285 or 287) and 490; 286 and 386; 331 and 336; (372 or 351) and 555; (331 or 336) and 557. The courses in the two-term sequence need not be taken in consecutive semesters.

One of the following courses outside of the Mathematics Department may be counted toward the Concentration in Applied Mathematics: CMPT 335 (Discrete Structures), PHYS 209 (Mathematical Methods in Physics), CEEN 308 (Reliability Analysis in Civil and Environmental Engineering), EECE 307 (Mathematical Methods), and MECH 314 (Engineering Analysis and Numerical Methods). A student may have a maximum of one non-Mathematics course count for the concentration. A student may not have both CEEN 308 and MATH 336 count for the concentration.

The following two-semester depth sequences involving a non-mathematics course may be used for the concentration: MATH 331 and CEEN 308; MATH 490 and PHYS 209; MATH 490 and EECE 307.

Completion of the Concentration will be documented on the student's transcript.
Application: To pursue the Concentration in Applied Mathematics, a student must get the appropriate form from the department, fill it out, and have it approved by the Department of Mathematics. An approved form will be forwarded to the appropriate dean.

## Minor in Mathematics

The minor in Mathematics consists of a minimum of 15 credits in Mathematics and must include a yearlong calculus sequence. Specific requirements are listed below. A grade of at least $C$ is required for all courses meeting the requirements for a minor in

Mathematics. At least three courses must be taken at Manhattan College, with AP and/or transfer credit
subject to approval by the Chair of the Mathematics Department.
Note: The following courses may not be used toward the Mathematics minor: MATH 100, 111, 151, 153, 154, 158, 221, 222, 230, 320, 321, 322, 326, 328, and 422.

Application: To pursue the minor in Mathematics, a student must get a Minor Form from the department, fill it out, and have it approved by the Department of Mathematics. An approved form will be forwarded to the appropriate dean.

## Minor Requirements

The minor in Mathematics consists of a minimum of 15 credits including Calculus I (MATH 155/185/187) and Calculus II (MATH 156/186/188). The remaining courses should be chosen from Mathematics courses that are not on the above list of courses which may not be used toward the Mathematics minor, with the approval of the Chair of the Department of Mathematics. No course from another department may be counted toward the Minor in Mathematics.

## B.S. in Childhood Education - Mathematics Plans

All students majoring in Childhood Education take the following 6 credit core sequence.

| MATH 221 | Mathematics for the Elementary School Teachers I | 3 |
| :--- | :--- | :--- |
| MATH 222 | Mathematics for the Elementary School Teachers II | 3 |

In addition, students majoring in Childhood Education may choose to do either a Concentration in Mathematics or an Emphasis in Mathematics as detailed below.

## B.S. in Childhood Education - Mathematics Concentration

Childhood Education majors may choose to concentrate in Mathematics. These students take 30 credits in Mathematics including Calculus I (MATH 155/185/187), Calculus II (MATH 156/186/188), MATH 243, 321, 322, 326, One of MATH 230 or 336, Three from the following: MATH 372, 285, 286, 331, 361. Please see the Department of Mathematics for the appropriate sequencing of these courses.

## B.S. in Childhood Education - General Studies Concentration with Mathematics Emphasis

Childhood Education majors may choose a General Studies Concentration with Mathematics as one area of emphasis. These students take 15 credits in Mathematics including MATH 321, 322, 326, 230, One of: MATH 100, 151, 155, 185. Please see the Department of Mathematics for the appropriate sequencing of these courses.

## PLANS OF STUDY

Bachelor of Science in Mathematics
First Year
Fall
Credits Spring
Credits
MATH 185
3 MATH 158 or CMPT $102^{2}$
CMPT 101
3 MATH 186

| Modern Language ${ }^{1}$ |  | 3 Modern Language ${ }^{1}$ | 3 |
| :---: | :---: | :---: | :---: |
| ENGL 110 |  | 3 RELS 110 | 3 |
| LLRN 102 |  | 3 Social Science | 3 |
| SCI 100 |  | 1 SCI 101 | 1 |
|  |  | 16 | 16 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MATH 243 |  | 3 MATH 336 | 3 |
| MATH 285 |  | 3 MATH 372 | 3 |
| PHYS 101 <br> \& PHYS 191 |  | 4 PHYS 102 <br> \& PHYS 192 | 4 |
| PHIL 150 |  | 3 ENGL 150 | 3 |
| Social Science |  | 3 Free Elective | 3 |
|  |  | 16 | 16 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MATH 331 |  | 3 MATH 387 | 3 |
| MATH 377 |  | 3 MATH 478 | 3 |
| MATH 471 |  | 3 RELS 2XX Catholic Studies | 3 |
| Natural Science ${ }^{3}$ |  | 4 Natural Science ${ }^{3}$ | 4 |
| HIST 150 |  | 3 MUSC 150 or ART 150 | 3 |
|  |  | 16 | 16 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MATH 490 |  | 3 MATH 489 | 3 |
| MATH Elective |  | 3 MATH Elective | 3 |
| Free Electives |  | 9 Free Electives | 6 |
|  |  | RELS 3XX Global/Contemporary | 3 |
|  |  | 15 | 15 |
| Total Credits: 126 |  |  |  |
| 1 One year sequence of a Modern Foreign Language. |  |  |  |
| 2 Students wishing to minor in Computer Science should take CMPT 102 Computer Science II instead of MATH 158 Introduction to Mathematical Computation. <br> 3 One year (8 credits with lab) of the same natural science is required. |  |  |  |
|  |  |  |  |
| Bachelor of Arts in Mathematics |  |  |  |
| First Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MATH 185 |  | 3 MATH 158 or CMPT $102^{2}$ | 3 |
| CMPT 101 |  | 3 MATH 186 | 3 |


| Modern Language ${ }^{1}$ |  | 3 Modern Language ${ }^{1}$ | 3 |
| :---: | :---: | :---: | :---: |
| ENGL 110 |  | 3 RELS 110 | 3 |
| LLRN 102 |  | 3 Social Science | 3 |
| SCI 100 |  | 1 SCI 101 | 1 |
|  |  | 6 | 16 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MATH 243 |  | 3 MATH 336 | 3 |
| MATH 285 |  | 3 MATH 372 | 3 |
| SCI XXX ${ }^{3}$ |  | $3 \mathrm{SCI} \mathrm{XXX}{ }^{3}$ | 3 |
| PHIL 150 |  | $3 \mathrm{SCI} \mathrm{XXX}{ }^{3}$ | 3 |
| Social Science |  | 3 ENGL 150 | 3 |
|  |  | 5 | 15 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MATH 331 |  | 3 MATH 387 | 3 |
| MATH 377 |  | 3 MATH 478 | 3 |
| MATH 471 |  | 3 RELS 2XX Catholic Studies | 3 |
| HIST 150 |  | 3 MUSC 150 or ART 150 | 3 |
| Free Elective |  | 3 Free Elective | 3 |
|  |  | 5 | 15 |
| Fourth Year |  |  |  |
| Fall | Credits | Spring | Credits |
| MATH 490 |  | 3 MATH 489 | 3 |
| MATH Elective |  | 3 MATH Elective | 3 |
| Free Electives |  | 9 RELS 3XX Global/Contemporary | 3 |
|  |  | Free Electives | 6 |
|  |  | 5 | 15 |
| Total Credits: 122 |  |  |  |
| 2 One year sequence of a Modern Foreign Language. |  |  |  |
| 2 Students wishing to minor in Computer Science should take CMPT 102 Computer Science II instead of MATH 158 Introduction to Mathematical Computation. |  |  |  |
| 3 Students may opt for one full year of a lab science ( 8 credits). In this case, the student will graduate with 120 credits. Students may also opt to replace SCI XXX with 9 credits of courses from within a single discipline in the School of Science. |  |  |  |

Bachelor of Science Adolescence Education Mathematics
Sequencing of Mathematics Courses
See the Department of Education for sequencing of Education Courses.First Year

| Fall | Credits | Spring |
| :--- | :---: | :---: |
| MATH 185 | Credits |  |
| CMPT 101 | 3 MATH 158 or CMPT $102^{1}$ | 3 |
|  | 3 MATH 186 | 3 |
| 6 | $\mathbf{6}$ |  |


| Second Year |  |  |
| :--- | :---: | ---: |
| Fall | Credits | Spring |
| MATH 243 | Credits |  |
| MATH 285 328 | M MATH 372 | 3 |

6 6

| Third Year |  |  |
| :--- | :--- | :--- |
| Fall Credits Spring |  |  |

MATH 3313 3 MATH 387
MATH 377 3 MATH 361 3
6
Fourth Year
Spring Credits
MATH 3363
MATH 4893

6

## Total Credits: 42

1 Students wishing to minor in Computer Science should take CMPT 102 Computer Science II instead of MATH 158 Introduction to Mathematical Computation.

# Physics \& Astronomy 

Dr. Rostislav Konoplich
Chair of the Department

Dr. Sezar Fesjian<br>Assistant Chair of the Department

Physics is the study of natural phenomena, from subatomic scales to the scale of the entire universe. Physics is the most basic and fundamental science, and provides the basis for deep understanding in many fields of study and all of technology.

The Department of Physics and Astronomy offers B.S. and B.A. degrees in Physics, a Minor in Physics, a Minor in Astronomy and a Concentration in Theoretical Physics. Small class sizes and close collaboration between students and faculty create comfortable learning and research environments. Students in the Department of Physics and Astronomy collaborate with faculty on a variety of topics from early universe cosmology and neutron star astrophysics to particle physics, optics and condensed matter. Our students publish articles in leading research journals and make presentations at national and international conferences. With support from the Department of Physics and Astronomy and Manhattan College they participate in research and internships during the academic year and over the summer, both on campus and at locations such as Brookhaven National Laboratory (USA) and CERN (Switzerland). Our alumni have successful careers in science, data science, teaching, engineering, medicine, finance and other fields.

## Lower Division Requirements

All physics majors must take the following courses in their freshman and sophomore years:

| PHYS 101 | Physics I | 4 |
| :--- | :--- | :--- |
| \& PHYS 191 | and Physics I Lab |  |
| PHYS 102 | Physics II | 4 |
| \& PHYS 192 | and Physics II Lab | 3 |
| PHYS 209 | Mathematical Methods in Physics | 3 |
| PHYS 233 | Physics III | 3 |
| PHYS 234 | Physics IV | 1 |
| PHYS 261 | Intermediate Laboratory I | 1 |
| PHYS 262 | Intermediate Laboratory II | 1 |
| SCI 100 | Science Orientation Seminar I | 1 |
| SCI 101 | Science Orientation Seminar II | 3 |
| CMPT 101 | Computer Science I | 3 |
| MATH 185 | Calculus I |  |
| or MATH 187 <br> or MATH 155 | Honors Calculus I <br> MATH 186 | Calculus for the Life Sciences I |
| Cr MATH 188 | Calculus II |  |
| Honors Calculus II | 3 |  |


| or MATH 156 | Calculus for the Life Sciences II |  |
| :--- | :--- | ---: |
| MATH 285 | Calculus III |  |
| $\quad$ or MATH 287 | Honors Calculus III | 3 |
| MATH 286 | Differential Equations | 3 |
| CHEM 101 | General Chemistry I <br> \& CHEM 103 | and General Chemistry Laboratory I |
| CHEM 102 General Chemistry II <br> \& CHEM 104 and General Chemistry Laboratory II | 4 |  |

## Total Credits

Students selected for the honors sequence will be enrolled in the honors sections of Physics I and II (PHYS 101H and PHYS 102H).

## Upper Division Requirements for the B.S. Major in Physics

The B.S. Physics major program is standard preparation for those students interested in graduate studies in physics.
PHYS 301 Computational Physics ..... 3
PHYS 309 Mechanics I ..... 3
PHYS 311 Atomic \& Nuclear Physics ..... 3
PHYS 312 Quantum Mechanics I ..... 3
PHYS 314 Electromagnetic Waves ..... 3
PHYS 341 Topics in Astrophysics ..... 3
PHYS 350 Optics ..... 3
PHYS 352 Modern Physics Lab II ..... 2
PHYS 410 Advanced Theoretical Physics ..... 3
PHYS 415 Statistical Mechanics ..... 3
PHYS 440 Research Project in Physics ..... 3
PHYS 443 Quantum Mechanics II: Quantum Computing \& Information ..... 3
PHYS 445 Research Project in Physics ..... 2
PHYS 450 Seminar ..... 1
PHYS 446 Topics in Cosmology ..... 3
Total Credits ..... 41
Upper Division Requirements for the B.A. Major in Physics

The B.A. Physics major program is useful to those interested in careers in fields such as education, technical writing, and patent law. It also provides a full foundation for graduate studies in physics.
PHYS 301 Computational Physics ..... 3
PHYS 309 Mechanics I ..... 3

| PHYS 311 | Atomic \& Nuclear Physics | 3 |
| :--- | :--- | ---: |
| PHYS 314 | Electromagnetic Waves | 3 |
| PHYS 350 | Optics | 3 |
| PHYS 352 | Modern Physics Lab II | 2 |
| PHYS 441 | Senior Thesis | 3 |
| PHYS 446 | Topics in Cosmology | 3 |
| Total Credits | $\mathbf{2 3}$ |  |
| Grade Requirements |  |  |
| For graduation, a physics major must have a 2.00 cumulative index in all required physics <br> courses and elective science and engineering courses. A minimum grade of C is required <br> in all major courses. |  |  |

## Minor in Physics

The minor in Physics consists of a minimum of 15 credits. Specific requirements are listed below. A grade of at least C is required for all courses meeting the requirements for a minor in Physics.

Application: To pursue the minor in Physics, a student must get a Minor Form from the department secretary, fill it out, and have it approved by the Chair of the Department. An approved form will be forwarded to the appropriate Dean.

## Minor Requirements

The minor in Physics consists of a minimum of 15 credits including PHYS 101+191 and PHYS 102+192. The remaining courses should be chosen from the list below, with the approval of the Chair of the Department.

The following upper-level courses may be used toward the Physics minor: PHYS 209, $233,234,261,262,301,309,311,312,314,341,350,352,410,415,440,443,445,446$ and 450.

## Minor in Astronomy

The minor in Astronomy consists of a minimum of 15 credits. Specific requirements are listed below. A grade of at least C is required for all courses meeting the requirements for a minor in Astronomy.

Application: To pursue the minor in Astronomy, a student must get a Minor Form from the department secretary, fill it out, and have it approved by the Chair of the Department. An approved form will be forwarded to the appropriate Dean.

## Minor Requirements

Required 3 credits courses: PHYS 101, 102, 222, 341.
At least one of the following 3 credits upper-level courses offered by the Department is required: PHYS 301, 309, 311, 312, 314, 350, 440, and 446.

## The Concentration in Theoretical Physics

The concentration in Theoretical Physics offers students the opportunity to acquire a deep conceptual understanding of fundamental physics and provides a foundation for professional work not only in physics and related fields but also in such fields as astrophysics, biophysics, engineering and applied physics, geophysics, mathematical physics, computer science, finance, and medicine. This concentration includes the following courses: Quantum Mechanics I (PHYS 312), Quantum Mechanics II (PHYS 443) and Advanced Theoretical Physics (PHYS 410).

## PLANS OF STUDY

## Bachelor of Science in Physics

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Credits | Spring | Credits |
| PHYS 101 |  | 4 PHYS 102 | 4 |
| \& PHYS 191 |  | \& PHYS 192 |  |
| MATH 185, 187, or 155 |  | 3 MATH 186, 188, or 156 | 3 |
| RELS 110 |  | 3 CMPT 101 | 3 |
| SCI 100 |  | 1 SCI 101 | 1 |
| ENGL 110 |  | 3 ENGL 150 | 3 |
|  |  | 4 | 14 |
| Second Year |  |  |  |
| Fall | Credits | Spring | Credits |
| PHYS 233 |  | 3 PHYS 209 | 3 |
| PHYS 261 |  | 1 PHYS 234 | 3 |
| MATH 285 or 287 |  | 3 PHYS 262 | 1 |
| CHEM 101 <br> \& CHEM 103 |  | 4 MATH 286 | 3 |
| LLRN 102 or PHIL 213 |  | 3 CHEM 102 <br> \& CHEM 104 | 4 |
| Modern Language |  | 3 Modern Language | 3 |
|  |  | 7 | 17 |
| Third Year |  |  |  |
| Fall | Credits | Spring | Credits |
| PHYS 301 |  | 3 PHYS 312 | 3 |
| PHYS 309 |  | 3 PHYS 314 or 415 | 3 |
| PHYS 311 |  | 3 PHYS 341 or 410 | 3 |
| PHYS 350 or 446 |  | 3 PHYS 352 | 2 |
| MUSC 150 or ART 150 |  | 3 PHIL 150 | 3 |
|  |  | RELS Catholic Studies | 3 |
|  |  | 5 | 17 |

## Fourth Year

| Fall | Credits | Spring |
| :--- | :--- | ---: |
| PHYS 440 | 3 PHYS 410 or 341 | 3 |
| PHYS 443 | 3 PHYS 415 or 314 | 3 |
| PHYS 446 or 350 | 3 PHYS 445 | 2 |
| RELS Global/Contemporary | 3 HIST 150 | 3 |
| Social Sciences | 3 Social Sciences | 3 |
| Electives | 3 PHYS 450 | 1 |

Total Credits: 127

## Bachelor of Arts in Physics

First Year
Fall
PHYS 101
\& PHYS 191
MATH 185, 187, or 155
RELS 110
Credits Spring Credits
4 PHYS 1024
\& PHYS 192
3 MATH 186, 188, or 1563
3 CMPT 1013
SCI 100
1 SCI 101 1
ENGL 110
3 ENGL 1503
14 14
Second Year
Fall
PHYS 233
Credits Spring
Credits
3 PHYS 209
PHYS 261
1 PHYS 2343
MATH 285 or 287
3 PHYS 2621
CHEM 101
4 MATH 2863
\& CHEM 103
LLRN 102 or PHIL 213
3 CHEM 1024 \& CHEM 104
Modern Language 3 Modern Language 3
17
Third Year
Fall
Credits Spring
Credits
PHYS 301
PHYS 309
3 PHYS 314 or 4153
3 PHYS 3522
3 PHIL 1503
3 RELS Catholic Studies 3
3 Electives 6

| Fourth Year |  |  |
| :--- | :---: | ---: |
| Fall | Credits | Spring |
| RELS Global/Contemporary | 3 PHYS 441 | 3 |
| Social Sciences | 3 HIST 150 | 3 |
| PHYS 446 or 350 | 3 Social Sciences | 3 |
| Electives | 6 Electives | 6 |
|  | $\mathbf{1 5}$ | $\mathbf{1 5}$ |

Total Credits: 124

## Student Life

## Division of Student Life Mission Statement

In keeping with the College's mission, the Division of Student Life partners with our faculty colleagues in providing students with a contemporary, person-centered educational experience that facilitates students' personal development, professional success, civic engagement and service to their fellow human beings. The Division accomplishes this through programs and services that challenge and support students in order to create an educational environment conducive to student learning. In seeking to provide a transformative educational experience, we recognize that effective learning occurs in a variety of settings and contexts, both inside and outside the classroom. For this reason, we assist students through fostering connections that enable their intellectual, spiritual, physical, vocational and cultural development.

In keeping with our Lasallian Catholic heritage, the Division challenges and supports students by providing a safe, healthy, engaged and respectful living and learning community that embraces diversity and celebrates our unity in being created in the image of God. Members of the Student Life Division accomplish this by working in a highly collaborative manner together and by association with all campus constituents and institutional stakeholders.

## Vision

The work of the Student Life Division will contribute to the College's strategic vision by providing co-curricular opportunities and services that prepare students to be informed, resilient, faith-filled and compassionate individuals. Students begin the process of discovering their vocational and leadership potential through these endeavors. In providing a person-centered educational experience we help students understand, reflect on and transform their lives and the world around them.

## Values

The Division embraces and puts into daily practice the Lasallian core values:

## Respect for all persons

We honor and respect the dignity of all individuals as persons created in the image of God.

## Quality education

We engage in quality education together as students, staff and faculty by thinking critically and examining our world in light of faith.

Faith in the presence of God
We believe in the living presence of God in our students, in our community and our world.

## Concern for the poor and social justice

We are in solidarity with the poor and marginalized and advocate for those suffering from injustices.

## Inclusive community

We celebrate diversity and welcome all members to our community.

## Athletics

## Intercollegiate Club and Intramural Athletics

Manhattan College sponsors 19 Division I intercollegiate athletics programs that compete in the Metro Atlantic Athletic Conference. A charter member of the Metro Atlantic Athletic Conference, the Jaspers have won 83 MAAC championships and own one national championship, the 1973 NCAA title in men's indoor track and field. Several accomplished student-athletes have competed for the Jaspers in recent years, including former NBA player Luis Flores '04, four-time Olympian Aliann Pompey '00.
Draddy Gymnasium draws several students each day for recreation, physical education classes, intramural play, club competition, and varsity sport contests and practices. Gaelic Park hosts most of Manhattan College's outdoor sports, including men's soccer, women's soccer, men's lacrosse, women's lacrosse and softball. Manhattan's baseball team plays its home games at Van Cortlandt Park.

## Athletics Staff

Marianne Reilly, M.A., Director of Intercollegiate Athletics
Tony Vecchione, M.A., Deputy Athletic Director
Kathryn Mirance, M.A., Associate Athletic Director, Business Affairs/Senior Woman Administrator
Whitney Swab, B.A., Associate Athletic Director for Marketing, Fan and Donor Experience
Douglas Straley, M.S., Associate Athletic Director for Sports Medicine and Athletic Performance
Kevin Ross, M.A., Director of Sports Communication and Media Relations
Sal LaMonica, B.A., Director of Athletics Facilities and Event Management
Kat Torode, B.A., Senior Student-Athlete Academic Advisor
Susan Pape, Administrative Assistant To The Director of Athletics
Jaclyn Rettig, MBA, Assistant Sports Medicine Director
Lea Georgatos, M.S., Athletic Trainer
Mike Cole, B.S., Head Coach, Baseball
Stephen Masiello, B.A., Head Coach, Men's Basketball
Heather Vulin, M.A., Head Coach, Women's Basketball
Kerri Gallagher, B.A., Head Coach, Men's \& Women's Cross Country, Middle Distance and Distance
Matt Centrowitz, B.A., Director of Cross Country, Track and Field
Phil Wildermuth, B.A., Head Coach, Men's Golf
Drew Kelleher, B.A., Head Coach, Men's Lacrosse
Jenna Dingler, M.A., Head Coach, Women's Lacrosse
Alex Canale, M.A., Head Coach, Women's Rowing
Jorden Scott, B.S., Head Coach, Men's Soccer
Brendan Lawler, B.A., Head Coach, Women's Soccer
Thomas Pardalis, M.S., Head Coach, Softball
Patrick Malone, M.S., Head Coach, Swimming \& Diving
Lora Sarich, M.A., Head Coach, Volleyball

# The Office of Campus Ministry/Social Action 

## This is the place to explore your "big questions and worthy dreams!" (author Sharon Parks)


#### Abstract

Rooted in the Lasallian Catholic tradition, the mission of Campus Ministry \& Social Action (CMSA) is to promote faith, service, social justice and community throughout Manhattan College. Inspired by faith and zeal, we accompany students, faculty and staff to encounter, engage, reflect, and act in the world and to find meaning and purpose on their life and faith journeys.


## If you want to engage your faith in action in the world, CMSA is the place for you!

Campus Ministry \& Social Action provides opportunities for spiritual development, community engagement, and reflection on social justice. CMSA offers programs that include prayer, liturgies, meditations, discussions, retreats, lectures, social justice immersion trips, local community service projects, and social events.

CMSA strives to serve students of all religious traditions. Through LIFT, Lasallians in Faith Together, there are several retreat experiences each semester. Peer Ministry provides student-to-student encounters that encourage exploration of faith and spirituality in the daily lives of students. Peer Ministry, like retreat experiences, offers opportunities for students of all levels and expressions of religious practices.

Our Catholic community celebrates the Eucharist on Sunday evenings in the Chapel of De La Salle and His Brothers and on weekdays and evenings in the Residence Halls. CMSA journeys with members of the campus community interested in becoming Catholic or completing their Sacraments of Initiation. For Jummah, prayer space is available on Fridays for Muslim students.

The Lasallian Outreach Collaborative (LOCo) program and the Community-Engaged Federal Work-Study (CE-FWS) program connect students to community engagement opportunities and jobs at local community-based organizations.

One-time service opportunities are open to the entire student body throughout the year through the Service on Saturday program. The annual Mission Month Day of Service invites the campus community to participate in off-campus service projects with local community partners to celebrate the College's Lasallian heritage during Mission Month each April.

CMSA sponsors LOVE, the Lasallian Outreach Volunteer Experience. Through these Social Justice Immersion Experiences, students participate in domestic and international immersion trips during Winter and Spring Breaks and the early summer. On the trips, students are immersed through experiences with the local community. Participants learn about issues such as disaster relief, climate change, racial justice, mass incarceration and more. Students are encouraged to bring what they experience back to campus to engage in local service and advocacy. Recent experiences have taken place in New Orleans, LA, Flint, Michigan, El Paso, TX \& Bethlehem in the Holy Land.

Through CMSA, Manhattan has been designated a Catholic Relief Services "Global Campus" in recognition of the College's commitment to international relief and development work. The College also has the distinction of being the first Fair Trade College in New York City and the fifth in the country.

CMSA and the Voter Engagement Committee work to promote and expand civic life on and off campus through the expansion of nonpartisan civic engagement, voter registration, and voter education efforts. "Jaspers Vote" is our Manhattan College campaign to get more Jaspers to register and vote every year.

CMSA partners with Academic Affairs to support Community-Engaged Learning (CEL) courses at Manhattan College. Through CEL courses, students engage in service or research connected to the course and the community's needs.

Campus Ministry and Social Action has two convenient locations: Cornerstone, located in Miguel Hall, room 209, and the Social Action Suite, room 2.03, in the Student Commons. Students are always welcome to drop in and enjoy the comfortable lounges, get the latest information on programs and see the staff members who are available for conversation, consultation and pastoral counseling.

For more information: https://inside.manhattan.edu/student-life/cmsa/index.php (https:// inside.manhattan.edu/student-life/cmsa/)

## Center for Career Development

The mission of the Center for Career Development (https://inside.manhattan.edu/ student-life/career-pathways/career-development/) is to contribute to the educational and professional development of students by helping them discern their vision for what constitutes a meaningful and purpose-driven career. We accomplish this by providing comprehensive, person-centered career counseling, programs, and events that encourage students to consider all career pathways, including graduate school and employment opportunities. We honor the uniqueness of all schools, providing diverse professional opportunities across disciplines and industries. Our approach facilitates engagement by employers, alumni and all devoted to the professional success of our students.

CCD provides walk-in hours and offers various professional training programs and services throughout the year. Students and alumni can schedule individual career counseling appointments to assess their interests, values, skills and preferences. Decision-making tools and career assessments are used to develop person-centered counseling. Career counselors teach effective job search techniques; discuss opportunities in a variety of career paths; help tailor résumés and cover letters; strengthen personal branding and build strong interviewing skills.

Students and alumni can access the on-line, 24-hour job posting board, Handshake (https://inside.manhattan.edu/student-life/career-pathways/career-development/students/ job-board.php), for full-time, part-time, internship (current students only) and temporary positions. For those seniors seeking full-time employment upon graduation, there is an active On- Campus Recruitment Program (https://inside.manhattan.edu/student-life/ career-pathways/career-development/students/recruiting.php) available during the fall and spring semesters. Representatives from companies/organizations come to campus to interview students for career opportunities.

Additionally, CCD offers the Mentor Program (https://inside.manhattan.edu/student-life/career-pathways/career-development/students/mentor-program-students.php) for Manhattan College students to gain insight into their intended careers by being paired with professionals, generally Manhattan College alumni, in those career areas. Meeting with mentors several times a semester, visiting the work sites, talking with other employees at the company, sitting in on a meeting, or sometimes participating in a project, offers the students opportunities to think about a chosen career field early in their college career. The program is open to incoming freshmen in the School of Engineering and to sophomores and juniors in the Schools of Liberal Arts, Business, Education \& Health and Science during the participating academic year.

Students can gain valuable work experience through the credit-based Internship Program (https://inside.manhattan.edu/student-life/career-pathways/career-development/students/ internships.php). A student can apply for an internship after earning 54 academic credits, completing the basics in their major (at least 12 credits) and who are in good academic standing. School of Engineering programs are not included because they do not award credit for internships. Internships complement and broaden students' education through the practical application of the theoretical and technical knowledge gained in the classroom. For those interested in the no-credit internship, review COOP 401 (see below) and schedule an appointment with a career counselor from CCD.

For any questions please stop by the Center for Career Development located in Thomas Hall, Suite 330 or contact us at 718-862-7224 or careerdevelopment@manhattan.edu.

## Computer Facilities

A wide variety of computing resources are available to Manhattan College students, faculty, and staff via JasperNet, the college's campus-wide network. JasperNet deploys wired and wireless computing and information services to campus laboratories, classrooms, and offices, as well as to student residence halls. Computer labs running Microsoft Windows 10 are available across the Manhattan College campus. See more information about computer labs (https://inside.manhattan.edu/offices/its/computerlabs.php).

All campus locations are connected via a multi-gigabit backbone network. JasperNet provides many network based applications and services including online courses and web based storage as well as E-mail, Internet access, and laser printing in the laboratories. A wide range of software is available including math and statistical packages (Maple, MathCad, MatLab, SPSS, Excel), compilers (C++ \& Visual Studio), databases (Access, SQL), word processors (MS Word), presentation graphics (PowerPoint), multimedia authoring (Adobe Design Premium), as well as department-specific applications (E.g. Abaqus \& AutoCad). See list of software available in computer labs (https:// manhattan.teamdynamix.com/TDClient/KB/ArticleDet/?ID=2768) for more information. JasperNet provides full ethernet connectivity to students in all of the College's residence halls. Students living in these networked buildings can connect their own networkable devices directly to JasperNet.

A dedicated Website for the College - http://manhattan.edu (http://www.manhattan.edu) - is maintained by the Information Technology Services Department and supports pages of information including online catalogs, handbooks, and policies. Some faculty members maintain web pages for their courses on the server supported by a separate file server to facilitate the posting of online courseware. The Information Technology Services Department also provides online support, documentation, and other services via their web site: https://m (https://inside.manhattan.edu/offices/its/)anhattan.edu/its (http:// manhattan.edu/its/).

Computing laboratories are equipped for digital projection and many are used as handson classrooms. Laptop computers with projection capabilities are used by instructors for demonstrations purposes in other classrooms throughout the campus which are linked to JasperNet.

## Computer Laboratory Hours: <br> Research \& Learning Center

Day
Monday-Friday
Weekends
De La Salle CIS Lab

| Day | Time |
| :--- | :--- |
| Monday-Friday | $8: 00 \mathrm{am}-10: 00 \mathrm{pm}$ |

O'Malley Library Computing Labs
Day ..... Time
Sunday-Saturday ..... 24/7

## Dean of Students

The Office of the Dean of Students advocates for students, both individually and collectively, by ensuring that programs and services reflecting best practices are in place to support their success. The Office of the Dean of Students coordinates and works collaboratively with the Counseling Center, Health Services, the Multicultural Center, Residence Life, and Commuter Services to ensure that students are able to success in and out of the classroom.

The Office of the Dean of Students is located in Thomas Hall, room 514; telephone (718) 862-7438.

## CARE Team

The Campus Assessment, Resource, and Education (CARE) Team can help students with issues that include, but are not limited to depression, anxiety, panic attacks, erratic behavior, missing extended class time, substance use/abuse, medical issues, selfdestructive behavior, family issues, adjustment issues, and personal loss.

To contact the CARE Team with your concerns, you may email
CARETeam@manhattan.edu, or contact the Office of the Dean of Students.
Faculty Advisory System. The College administers a basic program of formal guidance designed to meet students' needs for personalized and academic counseling from the time of admission to graduation. Greatest emphasis is placed on guidance throughout the freshman year, the period during which the student is most in need of assistance. Every first-year student is provided with a Faculty Advisor from their own academic School.

## Student Conduct

At Manhattan College, community is based on the mutual respect of many persons engaged in different aspects of the academic venture. In this cooperative educational experience, the Manhattan community has found that certain kinds of behavior defeat the respect we bear for one another. These behaviors are outlined in the Manhattan College Community Standards and Student Code of Conduct. The implementation of the Community Standards and Student Code of Conduct is directly influenced by the thought and writings of St. John Baptist de La Salle.

Inappropriate behavior observed by campus officials, as well as information provided by the police and other local authorities, will be addressed. The College will sanction such behavior in accordance with the policies and procedures as outlined in the Manhattan College Community Standards and Student Code of Conduct. For further information on judicial procedures, including College jurisdiction, residence hall guidelines, and procedures for hearings, please refer to the Manhattan College Community Standards and Student Code of Conduct.

Disciplinary authority is vested in the Dean of Students. This authority may be exercised by referral to a trained conduct officer or one of the following hearing boards: the Student Court, the College Judiciary Council, or the Dean of Students' Board. For detailed information on each board, refer to the Manhattan College Community Standards and

Student Code of Conduct or contact the Office of the Dean of Students, Thomas Hall, room 514; telephone (718) 862-7438.

Pursuant to Article 129-B §6444.6 of the New York State Education Law, if a student is found responsible through the College's judicial process for crime(s) of violence, including, but not limited to sexual violence, as set forth at 20 U.S.C. § 1092(f)(1)(F)(i)(I)-(VIII) ("Clery Act crimes of violence"), the Dean of Students will direct that a notation be placed on the student's transcript.

Where the sanction is a suspension, the following notation will be listed:

- "SUSPENDED AFTER A FINDING OF RESPONSIBILITY FOR A CODE OF CONDUCT VIOLATION."
- Where the sanction is expulsion, the following notation will be listed: "EXPELLED AFTER A FINDING OF RESPONSIBILITY FOR A CODE OF CONDUCT VIOLATION."

Should a student withdraw from the College, while such conduct charges are pending for allegation(s) related to Clery Act crimes of violence and the student declines to complete the student judicial process, the Dean of Students will direct that the following notation be placed on the student's transcript: "WITHDREW WITH CONDUCT CHARGES PENDING."

## Drug and Alcohol Violation Disclosure

Section 444 of the General Education Provisions Act ( 20 U.S.C. 1232 g ) is amended by adding at the end the following: (i) Drug and Alcohol Violation Disclosures.

1. In General - Nothing in this Act or the higher Education Act of 1965 shall be construed to prohibit an institution of higher education from disclosing, to a parent or legal guardian of a student, information regarding any violation of any Federal, State, or local law, of any rule or policy of the institution, governing the use or possession of alcohol or a controlled substance, regardless of whether that information is contained in the student's education records, if -
a. the student is under the age of 21
b. the institution determines that the student has committed a disciplinary violation with respect to such use or possession.
2. State Law Regarding Disclosure - Nothing in paragraph (1) shall be construed to supersede any provision of State law that prohibits an institution of higher education from making the disclosure described in subsection (a).

## Disciplinary Hearings Committee

Disciplinary authority is vested in the Dean of Students. This authority may be exercised by referral to the College Judiciary Council, or the Dean of Students' Board.

Any member of the College community may report in writing to the Dean of Students an alleged incident of academic dishonesty as defined in the policy on Academic Integrity. The student(s) involved then becomes subject to an investigation and possible
subsequent disciplinary action. The Dean of Students Office is located in Thomas Hall 514.

## Student Privacy Rights

## Background Information

The primary purpose of The Family Educational Rights and Privacy Act of 1974 is to grant college students "the right to inspect and review any and all official records, files and data directly related to them," and generally to deny access by others without written consent of the student except in limited and specified circumstances.

## Definitions and Procedures

Included with the coverage of the Act is any person who is or was enrolled in Manhattan as a student (including full time and part time undergraduate and graduate students, day and evening).

In compliance with and subject to the provisions of this legislation and the College's Statement on the Confidentiality of Student Records, the College will make available to each student the College's official records, files and data falling within the scope of the Act to each student for his or her personal review and inspection. Specifically excluded from the definition are: personal notes of teachers, supervisors and administrators which are retained in their possession and are not accessible to others except substitutes; medical and psychiatric records except that these records may be reviewed by a physician or other professional of the student's choice; the Parent's Confidential Statement; letters of recommendation placed in the file before January 1, 1975; and campus security records.

Students wishing to inspect and review any of their official records and material contained therein should file a request in writing with the Registrar. Forms for such requests-inwriting will be made available. All proper requests will be complied with as soon as reasonably possible, but no later than forty-five days of the date of the request.

A hearing may be requested by a student to insure that his or her records are not inaccurate, misleading, or otherwise in violation of his or her privacy or other rights, to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein or to challenge the content thereof. An appropriate hearing procedure has been established by the College and is included in the Statement of Confidentiality of Student Records.

The Law prohibits the release of material in a student's file without written consent of the student, except to officials and teachers of the same school, another school where the student intends to enroll, and certain state and federal officials.

A copy of the Law and a copy of the Statement is available in the Office of the Registrar and the Office of the Vice President for Student Life.

## Health Services

The Mission of Health Services is to promote the health and wellness of the Manhattan College community by providing accessible cost -effective quality healthcare and education. Health Services understands healthy behaviors support student success.

Health Services is responsible for compliance with the NY State immunization requirements for new students.

The office also provides on campus healthcare to Undergraduate students of the College community.

Immunizations: New York State Law mandates that all students born after January 1, 1957 submit proof of immunity against measles, mumps and rubella to the College as well as a completed Meningitis Response Form. All students are also required to complete a Tuberculosis Risk Screen. Manhattan College Health Forms are available on the website. Immunization records may generally be obtained from the student's private physician or previous educational institution. Any student who is having difficulty obtaining the necessary medical records should contact the Health Services staff for assistance (718-862-7217). Immunization compliance matters can generally be resolved quickly once a student requests assistance.

Health Services provides on campus evaluation and treatment for common health problems, including: episodic illnesses, injuries, blood pressure screening, vision screenings, suture removal, and a variety of other health-related services. Health Services providers facilitate referrals to off-campus healthcare when necessary. No cost appointments by our nurse practitioners and physician are available to all undergraduate students. Graduate students are charged a $\$ 25$ visit fee. Students that require outside services, such as laboratory, x-rays, Urgent care, Emergency Care, etc., will be responsible for payment to that provider of services.

Health Services is located in Alumni Hall, Room 104. The office is open during the academic year Mondays through Fridays from 9:00 am to 4:30 pm. Students are advised to call or email for an appointment.

Phone: 718-862-7217
Email: health.services@manhattan.edu
After Hours Urgent Care \& Emergency Facilities resources are available on the Health Service's website for students in need of healthcare when the office is closed. Medical Emergencies: Public Safety (718-862-7333) should be contacted immediately for on campus medical emergencies. Public Safety responds to all emergency calls 24 hours a day, notifying Health Services or New York City Emergency Medical Services (911) as appropriate.

Insurance: Manhattan College requires all full-time undergraduate students, degreeseeking international students, resident students, and Division 1 athletic participants to have health insurance. Students should check that their health insurance provides coverage in the New York area while they are attending college. Manhattan College students are automatically enrolled in a Student Health Plan until the student provides
proof of insurance to waive the sponsored plan. This waiver process is available on the Health Services website.

## International Student Services

The Office of International Student and Scholar Services provides programs and services for Manhattan College students and scholars who are in the United States on non-immigrant $F$ and $J$ visas. These programs and services are designed to aid their adjustment to living and studying in New York City. Services include issuing required federal visa documents; assisting with immigration regulations governing enrollment, employment and travel; and publishing a monthly electronic newsletter, which provides important and timely information on a variety of topics. The office conducts an orientation session for all new international students and scholars in August and in January, coordinates a variety of cross-cultural programs and acts as liaison between students and scholars and other college offices, student groups and U.S. and foreign government agencies.

International students and scholars on non-immigrant visas are required to visit the office of International Student and Scholar Services when they arrive on campus, and are encouraged to maintain close contact with the office throughout the year. The office is located in Room 3.02A within the Multicultural Center on the third floor of the Student Commons. For further information, contact the Director of International Student and Scholar Services at (718) 862-7213.

## Public Safety

The Public Safety Department is responsible for enforcing College security regulations, overseeing the College's risk management policies, and the supervision of campus parking facilities. There are 50 officers and supervisors who conduct foot and vehicle patrols of the campus 24 hours a day. Being a component of the Student Life Division, the Public Safety Department actively supports the mission of the College and accepts its responsibility to employ security measures that promote the safety and well being of our students.

Daily Crime and Fire Log Availability
The Manhattan College Daily Crime and Fire Log is available for public review in the public safety office, located in Jasper Hall, Monday - Friday, 9 a.m. - 4:30 p.m.

The Advisory Committee on Campus Safety will provide upon request all campus crime statistics as reported to the U.S. Department of Education. These are also available by searching for Manhattan College at http://ope.ed.gov/campussafety/\#/ institution/list. The Director of Public Safety is authorized to provide these statistics and can be contacted at 718-862-7240.

## Residence Life

## Vision

Residence Life aspires to provide the foundation for a proactive, supportive community for all Jaspers where they feel safe and comfortable discovering who they are and who they are in relation to others.

## Mission

The mission of Residence Life at Manhattan College is to significantly improve the sense of community among the student body providing opportunities for involvement, leadership development, interpersonal engagement, and personal discovery that ultimately aid in the academic success of the student.

## Values

To achieve its mission and vision, Residence Life staff support all learning domains of the campus wide co-curriculum, paying particular attention to:

- Community and Global Engagement: understanding campus living as a microcosm for the world at large, we encourage students to become engaged within their community in order to develop an understanding of the world's interconnectedness
- Diversity and Inclusion: we support this domain by creating opportunities for students to engage with those from a variety of lived experiences both in their personal living spaces and in the larger residential community in order to foster a sense of respect and appreciation for others
- Health and Wellness: through independent living, students come to a more complex understanding of their personal needs and develop strategies in order to meet them
- Jasper Spirit: fostering a relationship to the history and traditions of Manhattan College connects our residents to the generations of Manhattan students who came before them, and all those who will come after
- Leadership: we support this domain by providing opportunities for involvement and employment that allow students to work with others collaboratively toward common goals


## Our Communities

Manhattan College offers four distinctive residence halls, all conveniently close to the center of campus. Our coed halls are much more than comfortable dorms to sleep and study in, they're also home to a tight-knit Lasallian community where you'll develop close friendships and enjoy a wide network of support.

Our dedicated professional staff, along with students serving as Resident Assistants (RAs) and Learning Community Assistants (LCAs) help to create a safe and enjoyable living atmosphere. They strive to assist our students' growth and to achieve our expectations of respect and civility.

## Suite-Style Living

Horan and Lee Halls both offer suite-style living where you'll share a bathroom with your roommates, but not the entire floor. Lee Hall houses primarily first-year students, while Horan caters to our continuing student population.

## Traditional Community Living

Jasper and Chrysostom are traditional-style dorms where two students share a bedroom and everyone on the floor shares a bathroom. Chrysostom houses continuing students in single-room accommodations.

## Apartment-Style Living

Horan Hall has 3-person, 5-person, and 6-person apartments housing up to 170 Junior and Senior students. Each unit has a full kitchen, dining and living room areas, and private bathroom(s).

## Living-Learning and Themed Communities

## The Arches

The Arches program is a learning and living community for freshmen. Students live together in a residence hall and take one class each semester of their freshmen year that is specifically designed for the Arches program, which incorporates cultural excursions and service projects. In addition, special events and activities are offered to Arches students, so they can bond, develop a sense of community, and create lasting friendships with peers, faculty and coordinators.

## Global Jaspers

Global Jaspers is an intentional partnership between Residence Life and Global Engagement to create a community for Jaspers looking to globalize their NYC experience by joining an intentionally placed residential community made up of students from around the world.

## Mi Casa

Mi Casa is a themed community designed in partnership with Multicultural Student Services to help create and support a community for all students interested in the Spanish language and in Hispanic/Latino culture in NYC and the world more broadly. The community will focus on creating opportunities for first-year students and continuing students to explore various cultural facets, delve more deeply into the interplay between identity and culture, and develop College and community-wide support networks.

## Manhattan College Residency Requirement

The residential community at Manhattan College provides students with a strong foundation for success, developing connections, and achieving full immersion into the College experience. As such, all full-time undergraduate students who enter Manhattan College in the Fall 2019 semester and thereafter are required to live on campus for the
first two years of their College experience, with the opportunity to live off-campus after achieving junior status ( 60 credits) and two full years of college enrollment.

That is, beginning with students who enter Manhattan College in the Fall 2019 semester, all full-time freshmen and sophomores are required to live on campus unless the student:

- Is planning to reside at the home of their parent/guardian within commuting distance of the campus and reside at their legal residence
- Is 23 years of age or older at the start of the academic year
- Is married
- Has a dependent child
- Has been a veteran of at least two years of active military duty
- Transfers to the college from another 2-year or 4-year college or university
- Has completed a four-year undergraduate degree or is participating in a graduate program

Exemptions to this policy must be applied for on or before February 28 by continuing students. Incoming students may apply for an exemption on or before June 1 or at the time of their deposit to the College. Students who meet the above requirements in the middle of a housing contract period are subject to the terms and conditions of the housing contract and will incur any penalties found therein.

Students who are on track for 60 credits and two full years of College enrollment remain eligible to live on campus and may opt to do so through the regular housing selection process. Students who have completed the two-year residency requirement and have 60 completed credits must provide Manhattan College their off-campus housing location for the following year by August 1.

## Office of Student Engagement

The Office of Student Engagement welcomes and encourages the active participation of all students in programs and events, in accordance with the college's Lasallian heritage. To support individual interests and creativity, the Student Engagement staff provides opportunities for involvement through membership in clubs and organizations, participation in on-campus events, as well as excursions off-campus, in New York City. The staff also assists in the development of leadership skills for individual students to promote effective leadership, teamwork, and commitment. Mentoring for student leaders occurs through the Student Engagement office as well as routine policy and procedure review to ensure that students are enabled to effectively experience the full extent of their contribution to the collective Student Activities Fees.

Specifically, the office is responsible for scheduling, planning and overseeing student events. The Student Engagement office is where students purchase tickets for both on and off-campus events. All on-campus events are offered to students for free, while offcampus events are offered at a discounted rate. Student Engagement staff guide student leaders who help create, plan and execute the vast majority of events for their fellow students.

Furthermore, to support the Lasallian tenets of the community, students are encouraged to engage in diverse activities and to enhance their personal growth, in preparation for good citizenship in their communities following graduation. The Student Engagement office is located on the $4^{\text {th }}$ floor in the Student Commons and may be reached at studentengagement@manhattan.edu (studentactivities@manhattan.edu)

## Orientation

In June, incoming first-year students are expected to participate in a two-day orientation program. The goals of this program are to provide an opportunity to meet with academic advisors, register for fall classes and gain insight into student life on campus. All students are expected to stay on campus overnight. Parents are invited to attend sessions planned especially for them. Additionally, during the beginning of each semester, workshops and activities are planned to help students gain valuable college and life skills.

Faculty Advisory System. The College administers a basic program of formal guidance designed to meet students' needs for personalized and academic counseling from the time of admission to graduation. Greatest emphasis is placed on guidance throughout the freshman year, the period during which the student is most in need of assistance. Every first-year student is provided with a Faculty Advisor from their own academic School.

## Recreation and Intramurals

The Student Engagement office also provides recreational opportunities for students including social, athletic, Esports, and intramural. These events occur largely in the evenings in Draddy Gymnasium, Gaelic Park, and Raymond W. Kelly Student Commons. Students can participate in numerous intramural leagues, including volleyball, flag football, soccer, and basketball, as well as several one-day tournaments and Esports video gaming leagues. All leagues are free for all undergraduate students both male and female, and
registration for each sport is done on IMLeagues.com. The Recreation Manager may be reached at recreation@manhattan.edu.

## Performing Arts

The Student Engagement office also includes the Performing Arts area at Manhattan College. This area is focused on engaging our students through artistic expression and education to explore and integrate cultural diversity. The Director of Music and Coordinator of Performing Arts is responsible for ensuring collaboration among and assisting with the scheduling of, all the Performing Arts ensembles. The Director also works collaboratively with the College's Chaplain to direct the Music Ministry at Mass on Sundays. The ensembles draw participation from all corners of the college community and play an integral role in allowing our students to develop and apply the lessons of a liberal arts education through music, dance, and theater. The Performing Arts Office is located in Thomas 517 and may be reached at 718-862-7254.

## Performance Ensembles

- Jasper Dancers
- Jasper Pep Band
- Jazz Band
- Music Ministry
- Orchestra
- Pipes and Drums
- Players Theater Group
- Scatterbomb Improvisational Troupe
- Singers


## Student Government

By participating in the Manhattan College Student Government, students have the opportunity to develop and improve their leadership skills. Student Government is a governing body that represents the voice of the student population. Student Government consists of the Executive Board, the Assembly, Student Court, and Senate. If you would like to become involved, email studentgov@manhattan.edu.

## Student Groups

With more than 80 student clubs and organizations on campus, Student Engagement is committed to ensuring that students have a spectrum of opportunities to choose from in order to participate in initiatives of interest to them. Clubs and organizations range from cultural groups, special interest clubs, social leisure groups, spirit squads, performing arts ensembles, co-curricular groups, extra-curricular clubs, and social Greek life organizations. In addition to established student clubs and organizations, additional opportunities are available by way of student committees that provide opportunities for leadership development.

## Cultural Groups

Black Student Union: The Black Student Union is an organization that provides students cultural diversity at Manhattan College, with special regard to students of African descent. bsu@manhattan.edu

Fuerza Latina: Engages the entire student body in learning about Latin American and Caribbean culture. fuerza-latina@manhattan.edu

Gaelic Society: Provides exposure to the Irish culture through sponsored events. gaelicsociety@manhattan.edu

International Student Association: Acclimates international students and enriches campus life. isa@manhattan.edu

Italian Club (II Circolo Dante Alighieri): Enjoy Italian culture with authentic food, films and more with members of the Italian Club. italianclub@manhattan.edu

Jewish Student Union: A student-run club dedicated to celebrating the Jewish culture and promoting Jewish heritage and traditions. jewishstudentunion@manhattan.edu

Muslim Student Association: Provides exposure to the Muslim community through sponsored events. muslimclub@manhattan.edu

South Asian Student Association (SASA): Increases the awareness of South Asian culture through social events, presentations and cultural exchanges. sasa@manhattan.edu

## Special Interest Groups

6th Borough Airmen \& Guardians: Works with our Reserve Officer Training Corps office to develop quality leaders for the Air Force, and citizens of character. afrotc@manhattan.edu

Commuter Student Association: A group dedicated to discussing issues, concerns, and ideas surrounding our commuter
population. csa@manhattan.edu or commuter@manhattan.edu
Green Club: An organization dedicated to sustainability in the college, the community, and the world. greenclub@manhattan.edu

Just Peace: Spreads awareness of and takes action on social issues worldwide. justpeace@manhattan.edu

Lasallian Collegians: Faith, service, and community! This group provides students with an opportunity to participate in activities such as a blood drive, toy drive, retreats, and other volunteering opportunities. lasalliancollegians@manhattan.edu

Government and Politics Club: This student club is ideal for students passionate about politics. The club hosts events and speakers on campus to engage discussions on political matters. govtandpolitics@manhattan.edu

Men's Crew Club: The only one of its kind, the men's crew club is a competitive club sport that focuses on the adaptive skill of rowing. crew@manhattan.edu

New York Water Environmental Association: An opportunity for students to become aware of the issues in our environment. nywea@manhattan.edu

Rainbow Jaspers: This group expands discussions on lesbian, gay, bisexual, transgender, and questioning students, their partners and supporters. This organization aims to connect, support, and spread awareness of the LGBTQ+ community on campus. Igbt@manhattan.edu

Resident Student Association (RSA): A group dedicated to discussing goals, issues, and aspirations regarding Residence Life on campus. rsa@manhattan.edu

Sanctus Artem: Latin for Pure Arts, focuses on establishing a progressive environment for students involved and interested in the visual, performing, and literary arts.
sanctus.artem@manhattan.edu
Student Government: An opportunity to develop leadership skills through the executive committee, assembly, student court, class officers, resident, and commuter student association. studentgov@manhattan.edu

SVO: The Student Veteran Organization is a community that sponsors programming and provides support for student veterans. svo@manhattan.edu

## Social Leisure Clubs

Games Club: This student club sponsors campus events for those interested in the gaming world, ranging from the online arena to tabletop board games. gamesclub@manhattan.edu

SoNYC: A Slice of New York City is a club that sponsors trips to famous landmarks in NYC. sonyc@manhattan.edu

## Spirit Squad

Cheerleading: This co-ed spirit group motivates both fans and players at basketball games. cheerleading@manhattan.edu

Jasper Dancers: Dance team that utilizes a variety of dance styles, including hip-hop, modern and jazz. jasperdancers@manhattan.edu

Pep Band: Wind ensemble that performs during basketball games and other events. jasperband@manhattan.edu

## Performing Arts

Jazz Band: This ensemble is perfect for all brass musicians, pianists, and drummers. As a member of the Jazz Band, you'll perform at various campus events throughout the year, as well as two annual concerts. jazzband@manhattan.edu

Music Ministry: An ensemble of singers, cantors, and instrumentalists that leads the liturgical music at college masses. musicministry@manhattan.edu

Orchestra: A 20-25 piece ensemble that performs orchestral literature from the baroque to contemporary repertoire. orchestra@manhattan.edu

Pipes and Drums: A signature opportunity to learn and play the bagpipes or percussion and march in parades. pipesanddrums@manhattan.edu

The Players: Provides an avenue to perform and gain a working knowledge of theater. players@manhattan.edu

Scatterbomb: Provides an opportunity to learn and perform long-form improvisational comedy. scatterbomb@manhattan.edu

Singers: A mixed chorus of men and women that performs a variety of choral styles from the Renaissance to modern day. singers@manhattan.edu

## Communication

American Advertising Federation: A group in which students get together to discuss the latest trends in advertising technology and creativity. Learn more at aaf.org (http:// www.aaf.org/) and aaf@manhattan.edu

Logos: A brand new academic journal dedicated to the liberal arts. logos@manhattan.edu
Manhattan Magazine: If you enjoy writing, everything from poems to short stories and/ or art, everything from photography to painting, have your work published in Manhattan Magazine. manhattanmagazine@manhattan.edu

The Quadrangle: Students can be reporters, writers, photographers, editors and layout artists for the college newspaper. thequad@manhattan.edu

## Social Fraternities and Sororities

These groups offer a unique opportunity for sisterhood/brotherhood, socializing and networking.

Sigma Delta Tau, Sorority sigmadeltatau@manhattan.edu
Alpha Phi Delta, Fraternity alphaphidelta@manhattan.edu
Delta Kappa Epsilon, Fraternity deltakappaepsilon@manhattan.edu

## Co-curricular Clubs

These groups, academic in nature, are specifically designed to complement class work and aid in career pursuits.

Accounting Society: Join this society as they promote worldwide excellence in accounting education. accountingsociety@manhattan.edu

American Advertising Federation: A group in which students get together to discuss the latest trends in advertising technology and creativity. Learn more at aaf.org (http:// www.aaf.org/). aaf@manhattan.edu

American Chemical Society: A group in which students are exposed to different opportunities within the field of chemistry and biochemistry. acs@manhattan.edu

American Institute of Chemical Engineers: Also known as AIChE, this group looks into the latest technology in the chemical engineering field. Learn more at aiche.org (http:// www.aiche.org/). aiche@manhattan.edu

American Institute of Aeronautics and Astronautics: This organization is dedicated to the global aerospace profession. aiaa@manhattan.edu

America Society of Civil Engineers: This group promotes the art, science, and practice of multidisciplinary engineering around the globe. Learn more at www.manhattanasce.org (https://www.asce.org/). asce@manhattan.edu

American Society of Mechanical Engineers: This group promotes the art, science, and practice of multidisciplinary engineering around the globe. Learn more at asme.org (http:// www.asme.org/). asme@manhattan.edu

Association for Computing Machinery: This student chapter works to connect students with the computing community by hosting seminars and lectures and providing the opportunity to meet others in their field. acm@manhattan.edu

Beta Alpha Psi: This group is an international honors business organization for accounting, finance, and information systems students. betaalphapsi@manhattnan.edu

Biology Club: A group that looks at the application of concepts and methods in the field of biology. biology@manhattan.edu (biologyclub@manhattan.edu)

Construction Management Association of America: CMAA introduces its members to the field of construction management by interacting with established CM professionals. cmaa@manhattan.edu

Economics and Finance Society: Bringing real-world expertise to campus through lectures conducted by both alumni and professionals in the workplace. economicsandfinance@manhattan.edu

Entrepreneurship Club: This new club allows students to explore opportunities regarding new businesses. entrepreneurship@manhattan.edu

Institute of Electrical and Electronics Engineers: Also known as IEEE, this is the world's largest professional group dedicated to technological innovation and excellence for the benefit of humanity. Learn more at ieee.org (http://www.ieee.org/). ieee@manhattan.edu

Management Club: This club provides students the opportunity to increase their knowledge of the management discipline and facilitates connections with alumni and professionals in the management field. managementclub@manhattan.edu
Manhattan College Investment Club: A club dedicated to today's issues in the investment world. mcic@manhattan.edu

Marketing Club: This club provides students the opportunity to further pursue their interest in marketing. marketingclub@manhattan.edu

Mini Baja: Build a mini baja vehicle with other students from scratch over the course of the year, until it's ready to run. minibaja@manhattan.edu
National Society of Black Engineers: A club geared towards increasing the number of culturally responsible black engineers who excel academically, succeed professionally, and positively impact its community. nsbe@manhattan.edu

Psychology Club: A club in which future career goals are discussed with students that have a passion for psychology. psychclub@manhattan.edu (psychologyclub@manhattan.edu)

PRSSA (Public Relations Student Society America): A pre-professional student organization that allows students to build lasting relationships and gain experience in the Public Relations field. mcprssa@manhattan.edu

Society of Hispanic Professional Engineers: Also known as SHPE, this group promotes Hispanics in engineering. shpemc@manhattan.edu (shpe@manhattan.edu)

Society of Women Engineers: Provides women an environment in which to achieve success in engineering, academically and professionally. Learn more at societyofwomenengineers.swe.org (http://societyofwomenengineers.swe.org/). swe@manhattan.edu

Women in Business: A student club that focuses on building support for women with future careers in Business. womeninbusiness@manhattan.edu
**Please note: As the clubs and organizations are student-run, the lifespan of these groups depends on the interests of current students. Please see the academic deans for more information on groups academic in nature, including honor societies. All clubs are open to all students, regardless of major. Hazing is strictly prohibited. Please refer to the Manhattan College Student Code of Conduct for more information.

## Veterans

## Yellow Ribbon Program

Manhattan College is pleased to announce our continuing commitment to America's veterans through our participation in the Yellow Ribbon Program of the Post 9/11 GI Bill ®. The Yellow Ribbon Program is a partnership between Manhattan College and the Department of Veterans Affairs (VA) to assist eligible students with educational expenses.

The Yellow Ribbon GI Education Enhancement Program (Yellow Ribbon Program) allows degree-granting institutions of higher learning in the United States to voluntarily enter into an agreement with the VA to fund tuition expenses that exceed the highest public in-state undergraduate tuition rate. This tuition-benefit program includes both undergraduate and graduate study and either full- or part-time enrollment. Because of Manhattan College's reasonable tuition rates, this program allows eligible veterans to participate at little or no cost. This significant commitment upholds a long history of Manhattan College support for our veterans and their academic and career endeavors.
Title 38 USC 3679 (e) Compliance.
This will allow an individual to attend or participate in a program of education if the
Chapter 31 or Chapter 33 Beneficiary provides the school with a "Certificate of Eligibility (COE)."

## Yellow Ribbon Benefit at Manhattan College

- For the 2023/2024 academic year- Up to \$27,120.05 per year per student not to exceed the cost of tuition. The Department of Veterans Affairs will match at the same amount and up to $50 \%$ of the difference between the student's tuition benefit and the total cost of tuition and fees.
- Participation in Yellow Ribbon may preclude the student from eligibility for any other institutional awards.
- The Yellow Ribbon award amount is based on per-credit-hour tuition and allowable fees.
- Continuing eligibility is contingent upon good academic standing and remaining entitlement with the VA.


## Yellow Ribbon Program Eligibility Requirements

Only individuals entitled to the maximum benefit rate (based on service requirements) may receive Yellow Ribbon Program benefits from Manhattan College and the VA. We strongly encourage you to review the eligibility criteria directly from the VA website.

The general eligibility requirements for the Yellow Ribbon Program include:

- The student served an aggregate period of active duty after Sept. 10, 2001 of at least 36 months.
- The student was honorably discharged from active duty for a service-connected disability and they served 30 continuous days after September 10, 2001.
- Student is a dependent eligible for Transfer of Entitlement under the Post-9/11 GI Bill based on a veteran's service under the eligibility criteria listed above.
- In addition to all other institutional policies and regulations, students who receive education benefits from the VA must comply with the policies of the VA and the State Approving Agency for the training and education of students receiving VA education benefits. These policies include the following requirements:
- You cannot be certified for receipt of your VA education benefits until you have selected the program of study you intend to pursue, met all admissions requirements and all credentials required by the office of admissions are received and evaluated. You must be admitted as a fully matriculated student.
- It is your responsibility to immediately inform the College's VA certifying official of any changes in your enrollment (e.g., dropped or added classes, or withdrawal from school). If there is any unreported change in your enrollment, you may not be entitled to the full amount of your educational benefits.
- It is your responsibility to inform the College's VA certifying official each semester or term of your intent to utilize your education benefits. You must turn in a Request for Certification Form and a copy of your course schedule.
- Only the elective hours required for degree completion, as stated in the catalog for your curriculum, may be certified for benefits. You may not receive benefits for excessive electives or courses already taken and passed. You must achieve satisfactory academic progress toward the completion of your degree as stated in the catalog. Unsatisfactory progress, conduct or attendance may result in termination of your educational benefits.
- Veterans who qualify for both federal financial aid and GI Bill assistance may receive support from either or both sources. However, if both sources are utilized, maximum assistance cannot exceed the total cost of attendance.
- Based upon eligibility determination by the VA, a student may still have a balance due to the College after receiving payment from the VA.

Veteran benefits information is available in the Office of Financial Aid Administration. Each semester recipients of Veterans Administration funds are required to file an Enrollment Certification in this office, and to report promptly when adding or dropping any courses, as well as being responsible for any overpayments made by the V.A.
Honorary Degrees Conferred
COMMENCEMENT EXERCISES 2022-2023 Year
UNDERGRADUATE COMMENCEMENT
19-May-2023
Lidia Matticchio BastianichDoctor of Humane Letters
GRADUATE COMMENCEMENT -
17-May-2023
Daniel A. NigroDoctor of Humane Letters

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[^0]:    [1]
    All capstone experiences must complete an analytical essay that reflects skills gained in the primary concentration. More specific information can be found in the General Studies Advising Guidelines.
    [2]
    Specific information on assessment, advising, and mentor assignment can be found in the General Studies Advising Guidelines.

[^1]:    * When these courses are on an environmental topic. Must be approved by the Environmental Studies program director.

[^2]:    First Year - Spring Semester

[^3]:    Total Credits: 124

