

The College of Arts and Science

Arts and Science Advising Office

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miamioh.edu/cas/academics/advising/

General Information

The College of Arts and Science (CAS) is the centerpiece of liberal arts education at Miami University and the largest academic division on campus. As such, the College encompasses a rich diversity of disciplinary opportunities and experiences across the humanities, natural sciences, social sciences, languages, mathematics/data science, and interdisciplinary programs.

Using this broad foundation, a CAS education is devoted to intellectual analysis, critical thinking, and honing transferable skills that will be used for a student's entire lifetime. Employers demand a smart, globally minded workforce that can creatively solve problems while drawing upon a broad and adaptable skill set, and our college prepares its students for a plethora of varying career opportunities.

CAS offers three degrees: the Bachelor of Arts, the Bachelor of Arts in International Studies, and the Bachelor of Science.

Accreditation

Departments in the College that are accredited by professional associations include:

Department of Chemistry and Biochemistry: American Chemical Society

Department of Chemistry and Biochemistry: American Chemistry and Biochemistry by the American Society of Biochemistry & Molecular Biology (ASBMB)

Department of Psychology: American Psychological Association

Department of Speech Pathology and Audiology (graduate program only): Council of Academic Accreditation in Audiology and Speech-Language Pathology

Physician Associate Studies: Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) - Provisional

General Requirements

Students within the College of Arts and Science must complete the following requirements in order to graduate:

- Earn at least 124 semester hours of non-duplicative credit, of which 56 must be advanced (at 200 level and above).
- Fulfill the university's liberal education requirements, known as the Miami Plan (MP).
- Fulfill the divisional requirements, known as the College Requirement.
- Fulfill the requirements of your major, which may include specific related hours.

- Take additional elective hours to get to the minimum 124 overall hours, if necessary.
- Earn a 2.00 cumulative grade point average, as well as a 2.00 average in all courses taken in your department of major.

If you are a transfer student, you must take a substantial portion of your major requirements at Miami. You will work with an Arts and Science divisional academic advisor at the time of transfer to help facilitate your transition.

Notes on Credit Restrictions

Before registering for your courses, you should keep in mind these restrictions on credit:

- You may not earn credit for a lower-numbered course in a department if you have already taken a closely related, higher-numbered course for credit. For example, if you have passed FRE 201, FRE 202, you cannot take FRE 101, FRE 102 and receive credit for them.
- When taking a series of courses, you may not jump over a prerequisite course. For example: if you start a foreign language and take the 101 and 102 courses, you cannot jump over the 201 course to take the 202 course; be sure to consult the courses of instruction portion of this bulletin to look at the prerequisites for courses you are thinking of taking.
- Credit is not given for closely related courses in two or more divisions; be sure to consult the courses of instruction portion of this bulletin to see if courses are duplicative credit.
- You cannot register for more than 20 hours in a semester except with the approval of the Dean or Dean's designee.

Bachelor of Arts

- Anthropology
- Biochemistry
- Biology
- Botany
- Chemistry
- Data Analytics
- Diplomacy and Global Politics
- Economics
- English: Creative Writing
- English: Literature
- Geography and Sustainable Development
- History
- Individualized Studies
- Journalism (requires a second major)
- Linguistics
- Mathematics
- Media and Communication
- Microbiology
- Organizational Leadership
- Philosophy
- Political Science
- Professional Writing
- Psychology
- Public Administration

- Public Health
- Sociology
- Spanish
- Strategic Communication
- Urban and Regional Planning
- Zoology

Bachelor of Arts in International Studies

- International Studies

Bachelor of Science

- Applied Mathematics
- Biochemistry
- Biology
- Botany
- Chemistry
- Data Science and Statistics
- Environmental Earth Science
- Geology
- Mathematics
- Mathematics and Statistics
- Medical Laboratory Science
- Microbiology
- Physics
- Quantitative Economics
- Speech Pathology and Audiology
- Zoology

Co-majors

Co-Majors are designed to provide a complementary perspective to a student's primary major. There is no specific degree designation for the co-major as students receive the degree designation associated with their primary major.

- Energy
- Environmental Science
- Film Studies
- Food Systems and Food Studies
- Neuroscience
- Premedical and Pre-Health Studies
- Sustainability
- Women's, Gender, and Sexuality Studies

Minors

Minors are secondary areas of interest that students can pursue as part of their undergraduate degree program; at minimum, they require 18 credit hours and have a 2.00 grade point average (some minors have higher requirements). Students may opt to take a minor to complement their major and develop skills to increase their career opportunities. Minors are optional.

- Actuarial Science
- Aerospace Studies
- American Studies

- Anthropology
- Archaeology
- Bioinformatics
- Chinese
- Classical Studies
- Comparative Race and Ethnic Studies
- Comparative Religion
- Creative Writing
- Criminology
- Data Analytics
- Economics
- English Literature
- Ethics, Society, and Culture
- Film Studies
- French
- Geography
- Geology
- German
- Gerontology
- Global Health
- Global Perspectives on Sustainability
- History
- Horticulture
- Individualized Studies
- International Studies
- Italian
- Japanese
- Journalism
- Latin American Latino/a Caribbean Studies
- Linguistics
- Mathematics
- Medical Humanities
- Middle East, Jewish, and Islamic Studies
- Molecular Biology
- Naval Science
- Neuroscience
- Philosophy and Law
- Philosophy, Politics, and Economics
- Physics
- Political Science
- Rhetoric/Writing
- Russian
- Russian, East European, and Eurasian Studies (REEES)
- Social Justice
- Sociology
- Spanish
- Statistical Methods
- Statistics
- Women's, Gender, and Sexuality Studies

Certificates

A certificate is a formal award certifying the satisfactory completion of an organized program of study at the postsecondary level. The

purpose of a certificate program is to serve the needs of both matriculated and non-degree students interested in developing specific skills and knowledge for personal and/or professional development.

- Computational Linguistics Certificate
- Financial Mathematics Certificate
- Geographic Information Science (GIS) Certificate
- Global Readiness Certificate
- Humanities Engagement Certificate
- Mathematical Modeling Certificate
- Mathematics Education Certificate (non-licensure)
- Premedical and Pre-Health Studies Certificate (*this is a post-baccalaureate certificate*)
- Speech Pathology and Audiology Certificate (*this is a post-baccalaureate certificate*)

Interdisciplinary Programs

The College of Arts and Science offers a range of interdisciplinary programs including specialized degrees, major, and minors. These interdisciplinary programs allow students to consider a topic, subject, or problem from differing perspectives and to explore connections between those academic disciplines. Students pursuing these programs work closely with professors and advisors to select courses from across the curriculum that will provide opportunities to identify the intersections between multiple disciplines.

Majors

American Studies
Critical Race and Ethnic Studies
Individualized Studies
International Studies
Italian Studies
Journalism
Linguistics
Latin American Latino/a and Caribbean Studies
Women's, Gender, and Sexuality Studies

Minors

American Studies
Bioinformatics
Diversity, Equity and Inclusion
Ethics, Society and Culture
Film Studies
Global Perspectives on Sustainability
Individualized Studies
International Studies
Latin American Latino/a Caribbean Studies
Linguistics
Medical Humanities
Middle East, Jewish, and Islamic Studies
Molecular Biology
Neuroscience
Women's, Gender, and Sexuality Studies

Medical Laboratory Science

Medical laboratory scientists apply scientific background and skills to supervision and performance of diagnostic procedures to determine presence or absence of disease and to monitor response to treatment.

Miami offers the Bachelor of Science (B.S.) degree program in Medical Laboratory Science (MLS) which is a 3+1 Combined Program. It includes a 'clinical year' at one of the ASCP-accredited teaching hospitals affiliated with Miami University. The MLS major consists of 92 pre-internship hours plus an additional 32 internship hours completed during the final internship year, fulfilling the internship requirement of the National Registry program. These internships are awarded at the sole discretion of the hospital's Admissions Committee. Admission is based on curriculum, performance, and personal interview. Miami University establishes the requirements of the three academic years for students who wish to compete for these internships and will award the degree upon successful completion of the fourth year.

During the required 92 pre-clinical year semester hours at Miami, you take an interdepartmental sequence of courses in biology, chemistry, and microbiology. Specific requirements include: a year of general chemistry, organic chemistry, biochemistry, one year of general biology, general microbiology, immunology, physiology, molecular and cell biology, a course in mathematics (i.e., statistics or calculus), and completion of a foreign language at second-year level.

During your junior year, you must file a petition in the dean's office of the College of Arts and Science to be graduated in this program. During your clinical year, you will be registered for MBI 487, MBI 488 and MBI 489 at Miami. These courses fulfill the Miami Plan Capstone Experience requirement. Clinical laboratory rotations and lecture series may include hematology, chemistry, bacteriology, immunohematology, virology, parasitology, and mycology along with electives such as laboratory management and forensics. After you complete your clinical year and certify this to the University Registrar's Office, you will be awarded the B.S. in medical laboratory science.

During the fall semester of your junior year, you apply to enter a clinical year program at a hospital approved by the National Accrediting Agency for Medical Laboratory Sciences in the U.S. and affiliated with Miami University. The 3+1 MLS Program's affiliated training hospitals include: The Cleveland Clinic; University of Cincinnati Hospital; St. Vincent Medical Center's Mercy Health Integrated Laboratories (Toledo, OH); Children's Hospital Medical Center (Akron, OH); St. Elizabeth Medical Center (Covington, KY); Parkview Memorial Hospital (Fort Wayne, IN); Indiana University Health Methodist Hospital (Indianapolis, IN); Vanderbilt University Medical Center (Nashville, TN); Sentara Rockingham Memorial Hospital (Harrisonburg, VA); AHN Saint Vincent Hospital (Erie, PA); and Wright State University (Dayton, OH).

For more information about the Medical Laboratory Science (MLS) major, see the program advisor in the Department of Microbiology.

Planning for Law School

Law school is a popular option for Arts and Science majors; 93% of Miami's 2021-2022 senior applicants were accepted to law school, compared to the national average of 80% for the same period.

Students interested in law school are encouraged to select a major that interests them. Regardless of the major you select, you should take courses that will enhance those skills that are necessary for success in law school.

According to the Law School Admission Council, "as long as [students] receive an education including critical analysis, logical reasoning, and written and oral expression, the range of acceptable college majors is very broad." To develop these very essential skills, students should consider taking courses in the humanities, such as political science or history (critical analysis), philosophy (logic), communication and English (oral/written communication), and math and science (analytical reasoning).

Most law schools have high standards for grade point average (GPA) and Law School Admission Test (LSAT) scores. In addition to success in the classroom, participation in community service, student activities, leadership training and experience, and study abroad are a plus. If you are interested in law school, you should contact a pre-law advisor in the Sue J. Henry Center for Pre-Law Education office in 159 Upham Hall (513-529-0877) as early in your college career as possible.

Planning for Medical, Dental, and Veterinary Schools

Most medical, dental, and veterinary schools limit admission requirements to allow for students from a variety of undergraduate programs. All schools recognize the desirability of a broad education that includes a strong foundation in natural sciences, the basis for study and practice of health professions; communication skills, essential for developing successful relationships with the public and professionals; and social sciences and humanities, in order to better understand yourself and others.

Therefore, you should follow an undergraduate program that is as broad and comprehensive as possible in order to prepare for a career in a people-oriented profession in a changing society. Pursuing a double major in sciences is not advised if it is done at the expense of obtaining a broad education.

Common admission requirements include two years of chemistry, two years of biology, one year of physics, and one year of English. However, requirements of schools may vary. You should therefore consider individual requirements of schools and plan your curriculum accordingly.

Students who plan to go to professional schools should see an academic advisor before taking any course on a credit/no-credit basis. In addition, using AP credit for classes required by professional schools **is not** recommended.

Many students planning to attend medical, dental, or veterinary school major in biology, zoology, microbiology, chemistry or biochemistry; however, this is not necessary and students should talk with their advisor if they are considering other options.

Medical schools require the Medical College Admission Test (MCAT), dental schools require the Dental Admission Test (DAT), and most veterinary schools want the Graduate Record Exam (GRE). We strongly urge you to talk with a pre-professional advisor as early as possible to start preparing for career in one of these fields.

For the a current list of suggested courses and additional information, visit the Mallory-Wilson Center for Healthcare Education website or their office, which is located in 106 Pearson Hall (513-529-3737; mallorywilsoncenter@MiamiOH.edu (mallorywilsoncenter@miamioh.edu)). There are pre-medicine faculty advisors in the departments of: biology, chemistry and biochemistry, microbiology, physics, or psychology; and pre-dentistry and pre-veterinary faculty advisors in the biology department.

Planning for Physician Associate/ Assistant (PA) Programs

Physician Assistants (PAs) are healthcare professionals who practice medicine as members of a team with their supervising physicians.

PAs deliver a broad range of medical and surgical services to diverse populations in rural and urban settings. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive health care, assist in surgery, and prescribe medications. Miami offers a Master of Medical Science (MMS) in Physician Associate Studies, if you are looking for more information. Or you can consult the Mallory-Wilson Center for Healthcare Education website, which includes a list of pre-PA suggested coursework and advice for applying to PA programs.

Planning for Optometry School

Typical admission requirements for optometry school include one year of English, one year of biology, two years of chemistry, one year of physics, one semester of mathematics (calculus and statistics), one semester of psychology, one year of social science, one semester of microbiology, and one or two semesters of physiology. Since specific requirements vary, you should contact schools where you may apply, and plan your curriculum accordingly. Most pre-optometry students major in biology, zoology, chemistry, or microbiology.

Optometry schools require the Optometry Admission Test. It is available only online (<http://www.ada.org/en/oat/>).

To learn more about the field of optometry, visit the websites of:

- Association of Schools and Colleges of Optometry (ASCO)
- American Optometric Association (AOA)

For the a current list of suggested courses and additional information, visit the Mallory-Wilson Center for Healthcare Education website or their office, which is located in 106 Pearson Hall (513-529-3737; mallorywilsoncenter@MiamiOH.edu (mallorywilsoncenter@miamioh.edu)).

Planning for Pharmacy School

Because the Doctor of Pharmacy is now the only accredited degree for pharmacy, you should complete a bachelor's degree (usually in zoology, microbiology, or chemistry), or at least two years of prerequisite coursework, and apply to a Doctor of Pharmacy program.

Typical prerequisites for pharmacy school include course work in calculus; inorganic, organic, and analytical chemistry; English, biology or microbiology, physics and statistics. Since specific requirements vary, contact schools of interest, and plan your curriculum accordingly. For more information, consult with the pre-pharmacy advisor in the Department of Biology.

Additional information about pharmacy can be found on the American Association of Colleges of Pharmacy (AACP) website.

For the a current list of suggested courses and additional information, visit the Mallory-Wilson Center for Healthcare Education website or their office, which is located in 106 Pearson Hall (513-529-3737; mallorywilsoncenter@MiamiOH.edu (mallorywilsoncenter@miamioh.edu)).

Planning for Occupational Therapy / Physical Therapy School

If you are interested in a career in physical or occupational therapy, you should take courses that meet the prerequisites for graduate degree programs in those areas. The Pre-Physical and Pre-Occupational Therapy Program at Miami is designed to provide students with the basic science and related courses needed for background preparation and admission into an accredited physical or occupational therapy program.

You may request further information about physical or occupational therapy programs in the United States by visiting these websites:

American Physical Therapy Association (APTA)

American Occupational Therapy Association (AOTA)

For the a current list of suggested courses and additional information, visit the Mallory-Wilson Center for Healthcare Education website or their office, which is located in 106 Pearson Hall (513-529-3737; mallorywilsoncenter@MiamiOH.edu (mallorywilsoncenter@miamioh.edu)).

Teacher Licensure

Combining a teacher licensure program with a major in the College of Arts and Science makes a student eligible for two degrees: an A.B. or B.S. degree in the College of Arts and Science and a B.S. in Education degree in the College of Education, Health and Society. Students who wish to combine licensure with an Arts and Science major must observe rules, procedures, and restrictions pertaining to admission to a licensure cohort.

If you choose to earn two degrees, you must meet all requirements for the Miami Plan, the College of Arts and Science, and teacher licensure. Early in your program, you should plan your schedule with academic advisors from the College of Arts and Science and the College of Education, Health and Society.

For information, contact the Department of Teaching, Curriculum, and Educational Inquiry in the College of Education, Health and Society, 401 McGuffey Hall (513-529-6443; TCE@miamioh.edu).

The College Requirement

The divisional requirements in the College of Arts and Science are called the College Requirement and are often referred to as your "CAS

requirements". The intention is to emphasize skills and competencies needed for the 21st century, as well as providing a breadth of knowledge in the humanities, social sciences, and natural sciences & mathematics. Together with the depth of knowledge acquired within a major, the College Requirement prepares students for a variety of educational, professional, and career options.

The College Requirement includes:

CAS Advanced Hours
CAS-A Foreign Language
CAS-B Humanities
CAS-C Social Science
CAS-D Natural Science
CAS-E Formal Reasoning

Students in Bachelor of Arts degree programs (B.A. and A.B.I.T.S) must complete **all** sections of the College Requirement.

Students in Bachelor of Science degree programs (B.S.) must only complete **two** sections of the College Requirement: the CAS Advanced Hours and the CAS-A Foreign Language. This is because our B.S. programs include more hour in the major and/or the related hours and we want to ensure that students can complete all of these within a four-year period.

As you begin making your academic plans, keep these important points in mind:

- While many courses may overlap both the College Requirement and Miami Plan, **not all** courses do; be sure to consult with your advisor about how you can structure your plan of study to optimize overlap.
- Courses used to fulfill the Miami Plan or the College Requirement can also count toward your major, major related-hours, or minor requirements.
- Courses cross-listed in multiple departments (e.g. BIO/MBI 115) can be used to satisfy a requirement appropriate to any of the cross-listed departments.

CAS Advanced Hours

Students must complete a **minimum of 56 hours** that are numbered 200-499. These hours can be from courses either in or outside of the College of Arts & Science, they can be used toward other specific requirements (e.g. major, major related-hours, minor, Miami Plan, etc.), or they can be from purely elective courses.

CAS-A Foreign Language

Direct acquisition of a different communication system facilitates access to a foreign culture. It also promotes understanding of how language structures human consciousness, increases the understanding of your own language, and makes possible a more informed awareness of the interaction between language and other social institutions.

All foreign languages taught at Miami are applicable for this requirement. They include: American Sign Language, Arabic, Chinese, French, German, Italian, Japanese, Korean, Latin, Portuguese, Russian, and Spanish.

Requirement:

The foreign language requirement may be met in any one of the following ways:

- Earning credit in the 202 course (or its equivalent) in a foreign language.
- Earning credit in a language course at/above the 300 level that has 202 as a prerequisite and is **not** in English translation.
- Posting credit awarded through a foreign language examination (Advanced Placement, College Level Examination Program, or International Baccalaureate). Information on acceptable scores for those exams is included in the Academic Planning portion of this Bulletin.
- International students whose native language is not English may use English to satisfy the foreign language requirement; students should work with a College of Arts & Science Academic Advisor in regards to this.

Students who are fluent in a language not offered at Miami University should work with a College of Arts & Science Academic Advisor regarding their options. Also, in some foreign language departments, access to courses may be denied to native or quasi-native speakers and heritage speakers, depending on their fluency.

LAT 202 may fulfill either CAS-A or CAS-B-LIT, but **not** both.

The foreign language placement guide in the Academic Planning section describes the background necessary to enter a course at a certain level; this will help you choose your first course. Placement tests are a diagnostic tool and **do not** award academic credit.

CAS-B Humanities

(9 semester hours)

The human experience and how we record it can be expressed in many forms, but some of the most traditional ways have evolved into the subjects of: history, language, literature, philosophy, and religion. These humanities are important as they help us understand the intricacies of human values and how they have shaped the world around us. Through studying these subjects, we are able to connect with cultures past, present, and different from our own.

Requirement:

- Nine semester hours total.
- Six hours must be from **two different** sub-categories: history, literature, philosophy, and religion.
- This includes all courses from the departments of: History, (including CLS 101 and CLS 102), Philosophy (except PHL 273), and Comparative Religion; as well as literature courses designated as CAS-B-LIT that are offered by the departments of English; French, Italian, and Classic; German, Russian, East Asian, and Middle Eastern Languages and Cultures; Spanish and Portuguese; and Theatre.
- The remaining three hours an additional course from any of the sub-categories, or from a list of courses that do not fall into a specific sub-category but still count toward this requirement.

CAS-C Social Science

(9 semester hours)

Through the systematic study of individual interpersonal interactions, the behavior of social sub-groups, and larger cultural and societal norms, we are able to analyze how the world operates and then begin to predict future actions or behaviors. These social science subjects help us understand- with data -the world beyond our personal experience.

Requirement:

- Nine semester hours total.
- Six hours must be from **two different** sub-categories: anthropology, economics, geography, political science, psychology, and sociology-gerontology-social justice studies.
- This includes all courses from the departments of: Anthropology; Economics; Geography; Political Science; Psychology; and Sociology and Gerontology (except GEO 121, GEO 122, and GEO 431/GEO 531).
- The remaining three hours an additional course from any of the sub-categories, or from a list of courses that do not fall into a specific sub-category but still count toward this requirement.

CAS-D Natural Science

(9 semester hours)

Learning to understand natural phenomena through observations and experimentation is important as it relies on a structured process to organize, test, and analyze information and reach logical conclusions. The physical sciences are involved largely with the behavior of energy, particles, atoms, and molecules, while the biological sciences are concerned with nature, variation, richness, and interactions of phenomena of life. This requirement introduces you to various aspects of scientific inquiry as practiced in biology, botany, chemistry, geology, microbiology, physical geography, and physics. Laboratory experience is included to demonstrate the relationship between theories or models used within a given science and experimental results.

Requirement:

- Nine semester hours taken from departments within the College of Arts and Science.
- Minimum of three semester hours in biological science.
- Minimum of three semester hours in physical science.
- One laboratory course (consult with an advisor to identify an appropriate laboratory course for you to take).
- Biological science includes all courses offered by the departments of: Biology, Microbiology, as well as select courses in Geography (GEO 431/GEO 531).
- Physical science includes all courses offered by the departments of: Chemistry and Biochemistry, Geology & Environmental Earth Science, and Physics, as well as select courses in Geography (GEO 121 and GEO 122).

CAS-E Formal Reasoning

(3 semester hours)

Students pursuing a liberal education must expand and enhance their capacity to reason. This requirement does that through the study of inductive and deductive thinking; through disciplines that employ formalized languages as the means to develop such thinking. This includes areas like: data analysis, mathematics, statistics, logic,

and linguistics. Unlike the Formal Reasoning component of the Perspectives Area 1 in the Miami Plan, this requirement does **not** include topics pertaining to technology.

Requirement:

- Three semester hours, designated as CAS-E in the Courses of Instruction section of this Bulletin.
- If using a math or statistics course to complete this requirement, placement is based upon either your ACT/ SAT math sub-scores or the Miami Placement test; please consult the mathematics and statistics placement guide in the Academic Planning chapter, or an academic advisor, to determine the appropriate course for you to take.
- Many majors either require or strongly suggest a specific course for this requirement.