COURSE INFO

ARTS-ENGINEERING PROGRAM

LEHIGH UNIVERSITY

Class of 2027 - Fall 2023
Course Registration Guide

Arts-Engineering Program

— TABLE OF CONTENTS —

P.C. ROSSIN COLLEGE OF ENGINEERING AND APPLIED SCIENCE | LEHIGH UNIVERSITY | COLLEGE OF ARTS AND SCIENCES

May 2023

Dear Members of the Class of 2027:

Welcome to the Arts-Engineering program! This five-year dual degree track will enable you to complete one degree in the College of Arts & Sciences and one degree in the College of Engineering and Applied Science. Arts-Engineering students balance their liberal arts education with an accredited engineering degree, and they benefit from dedicated first-year advising and early registration.

This booklet and our online resources are designed to aid you in every step of the academic onboarding and registration process. An online version of this booklet and additional resources are provided through a dedicated CourseSite, CASUNDERGRAD, available to you via coursesite.lehigh.edu after you activate your Lehigh account. Later in July you will be able to register for your first fall semester. **To prepare to register online, please read through this packet carefully.**

When you arrive on campus for Orientation in August you will meet with your academic advisor and consult with them to review your course selections and make any necessary changes to your schedule. In addition to your academic advisor, you will be supported by the CAS Academic Advising Center, and advising support from the College of Engineering and Applied Science, in addition to our colleagues in the Mentor Collective and the Office of Registration and Academic Services.

You will be asked to declare a major in Engineering in the spring semester of your first year. Your selection of a major in the College of Arts & Sciences may be made at any time prior to the spring semester of your sophomore year. After declaring each of your majors you will be assigned a faculty major advisor in each program.

The CAS Advising Center is located in 120 Williams Hall, so please plan to visit us in the fall semester. You can also visit Packard 304 to discuss questions related to engineering programs. We look forward to working with you as you begin your Lehigh experience!

Sincerely,

Dr. Sabrina Jedlicka
Associate Dean for Academic Affairs

Beth Pelton
Assistant Dean of Undergraduate Advising

Advising Structure

First-Year Advising

As an Arts-Engineering student you will have an advisor in both the College of Arts & Sciences and PC Rossin College of Engineering. Your advisors will help you with course selection, choosing a major, and navigating academic processes. Your initial advisors will be the co-directors of the AE program, Professor Sabrina Jedlicka (College of Engineering) and Beth Pelton (College of Arts & Sciences).

First-year registration guidance and advising will be provided by the faculty and staff in the CAS Advising Center. We are ready to assist you on any number of academic topics: course selection, registration guidance, degree requirements, etc. We will host a live chat for you and will be sending a series of guiding emails starting in June. In the meantime please reach out to inadvise@lehigh.edu and review additional resources online through the CASUNDERGRAD CourseSite, available at coursesite.lehigh.edu.

Mentor Collective

The Mentor Collective at Lehigh University aims to provide peer-led support by upperclassmen to students navigating their first year on campus. You will be contacted via email with an opportunity to opt into this program and be assigned a Peer Mentor, but please note that students are not automatically enrolled in the Mentor Collective. If you wish to take advantage of this program you will be paired with a Peer Mentor based on common interests, background, and academic pursuits. Your Peer will be prepared to discuss a variety of topics regarding preparing for, and navigating, life at Lehigh.

Dean of Students Offices

Students can seek additional academic support under the umbrella of our Dean of Students Offices. For example, the Center for Academic Success provides one-on-one, group, and peer-led tutoring; the Writing and Math Center provides focused feedback and training for courses that rely heavily on writing and math skills; and Disability Support Services works closely with students who self-identify in order to ensure equal access to University programs, activities, and services.

Major Advisor

Once you formally declare your major you will be assigned a major advisor, a faculty member in each department (in CAS and in RCEAS) in which you declared. Students in the CAS are expected to declare a major by the end of their Sophomore year, or fourth semester. The benefits of declaring a major include access to research, grant, or course opportunities. You are welcome to work with the CAS Advising Center, the RCEAS Academic Office, and the Center for Career and Professional Development in choosing a major program that will best suit your individual skill sets and help you achieve your academic and professional goals.

First-Year Course Registration Guide

Read through these 5 steps before you register!

The ***First-Year Course Registration Guide*** provides a step-by-step walkthrough of how to register for your Fall semester courses.

How this works:

- The Office of Registration and Academic Services will email you in June to confirm the day and time in July that registration will open for you. It is important that you complete your course registration process during the two-week July registration window. Use the following instructions to ensure you are prepared for that process!
- Also in June you will receive a short area of interest survey. **Please be sure to complete this survey as it provides information critical to assigning your academic advisor.**
- **Step-by-step registration videos** and Frequently Asked Questions about the registration process are available to you at **https://fysenroll.lehigh.edu**.
- **Additional details:**
    - You will need to register for a minimum of **12 credits** to be a full-time student, while the maximum number of credits you can take is **18**.
    - A typical course load is 15-17 credits (most courses are each 3 or 4 credit hours), meaning you should register for 4 or 5 courses in your first semester.
    - **You can register for courses that start with a zero (0), for example PSYC 001: Intro to Psychology.**

□ STEP 1 – What are the Requirements?

Each undergraduate college has a set of basic requirements all students must complete regardless of their major program(s). As an Arts-Engineering, or AE student, you are in both the College of Arts & Sciences (CAS) and the PC Rossin College of Engineering and Applied Sciences (CEAS). **Both colleges require you to complete:**

First-Year Writing (6 credits)

- ENGL 001: Critical Reading & Composition (3 credits)
- ENGL 002: Research & Argument (3 credits)
    - *Students who receive credit for ENGL 001 via AP, SAT, ACT, or IB exam must take ENGL 011 rather than 002 to complete the first-year writing requirement*
    - *Options for multilingual speakers, ENGL 003 and 005, are available through appropriate placement with the International Center for Academic and Professional English (ICAPE)*

First-Year Seminars

- CAS first-year seminar options can be found on page 17 (3-4 credits)
- The CEAS seminar course is ENGR 005: Intro to Engineering Practice (2 credits). The other first year course required for all students is ENGR 010: Applied Engineering Computer Methods (2 credits)

Distribution Requirements (detailed below)
Students may count the same courses toward distribution requirements in both colleges.

Distribution Requirements for the College of Arts and Sciences

Mathematical Sciences (MA) 3 credits

Natural Sciences (NS) 8 credits
Choose from those designated in: astronomy, biological anthropology, biological sciences, chemistry, earth and environmental sciences, physics, and neuroscience. At least one course must include an associated laboratory or at least one credit must be earned in a laboratory.

Social Sciences (SS) 8 credits
Choose from those designated in: anthropology, economics, political science, history, international relations, journalism, psychology, sociology, and science, technology, and society.

Arts and Humanities (HU) 8 credits
Choose from those designated in: architecture, art, design, classics, history, modern languages and literatures, english, music, philosophy, religion studies, and theatre.

Junior Year Writing Intensive (WI) 3 or 4 credits
The Junior Year Writing Intensive course is a continuation of our commitment to develop students' writing skills. Students may complete a writing intensive course as part of their major requirements.

Total required for graduation: 120 credits

*Please note that in addition to these traditional disciplines students may earn distribution requirements by taking courses in the interdisciplinary programs: **Africana Studies, Asian Studies, Cognitive Science, Environmental Studies, Ethics, Film & Documentary Studies, Global Studies, Health, Medicine, and Society, Jewish Studies, Latin American and Latino Studies, Sustainable Development, and Women, Gender, and Sexuality Studies**.

Distribution Requirements for the College of Engineering & Applied Science

Collateral Requirement: ECO 001: Principles of Economics

Advanced Requirement: A minimum of four multi-credit courses and a minimum of 13 credits in courses designated as HU (humanities) or SS (social science), with the following restrictions:

Depth 8 credits
At least eight credits must be in a common discipline and from the same department or program. At least three of these credits must be at the 100-level or above, or at the intermediate level or above for a single foreign language.

Breadth 3 credits
At least three credits in a discipline from, and not cross-listed with, the discipline employed to satisfy the depth requirement.

> At least three credits must be designated as HU;
> None of the courses used for HSS can be taken Pass/Fail;
> None of the courses can be one-credit courses.

□ STEP 2 –What Courses Should I Register For?

For the Arts-Engineering program you should plan to register for one of the following schedules below. You will start your Engineering major introductory courses in the fall semester of your sophomore year, and you can begin working in your CAS major courses within the first year. A full list of CAS majors and minors is provided online via the catalog (catalog.lehigh.edu) and also the CASUNDERGRAD CourseSite (coursesite.lehigh.edu).

Sample Course Schedules for Arts-Engineering:

#1 Sample Schedule:

FALL	SPRING
ENGL 001: Critical Reading & Comp (3) (or 011 if placed out of 001)	ENGL 002: Research and Argument (3) (or 011 if 001/011 not completed in Fall)
MATH 021: Calculus I (4)	MATH 022: Calculus II (4)
PHY 011 + 012: Intro Physics I & Lab (5)	CHM 030: Intro to Chemical Principles (4)*
CAS First-Year Seminar (3-4)	CAS Major Intro Course (4)
ENGR 005: Intro to ENGR Practice (2)	ENGR 010: Applied ENGR Computer Methods (2)
Total Credits: 17-18 credits	Total: 17 credits

* If you want to major in the **Biological Sciences, Chemistry, Bioengineering or follow the Pre-Health track**, please switch PHY 011/012 with CHM 030 (following the second sample schedule below).

#2 Sample Schedule:

FALL	SPRING
ENGL 001: Critical Reading & Comp (3) (or 011 if placed out of 001)	ENGL 002: Research and Argument (3) (or 011 if 001/011 not completed in Fall)
MATH 021: Calculus I (4)	MATH 022: Calculus II (4)
CHM 030: Intro to Chemical Principles (4)*	PHY 011 + 012: Intro Physics I & Lab (5)
CAS First-Year Seminar (3-4)	CAS Major Intro Course (4)
ENGR 005: Intro to ENGR Practice (2)	ENGR 010: Applied ENGR Computer Methods (2)
Total Credits: 16-17 credits	Total: 18 credits

*If you want to major in the **Biological Sciences, Chemistry, Bioengineering or follow the Pre-Health track**, you need to start by taking CHM 030 or 040 because it is a required prerequisite for courses to be taken in the spring semester (BIOS 041: Bio Core I and BIOS 042: Bio Core I Lab).

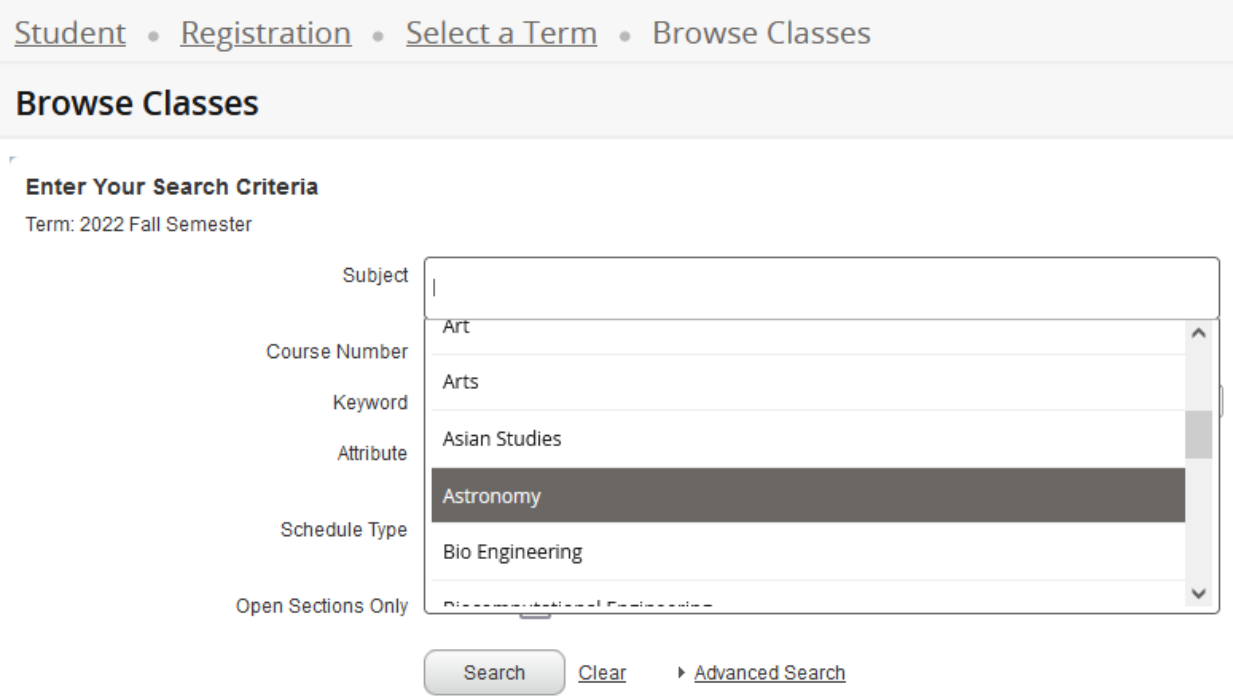
□ STEP 3 – Review Your Record for Applied AP or Transfer Credits

If you expect AP or transfer credit, make sure to have your scores and/or transcript sent to Lehigh! If your scores aren't reported in a timely manner, the Office of Registration and Academic Services will bar you from taking anything more advanced than introductory courses during your first semester. You should also review the "Advanced Placement and College Credit" section on page 12 in this booklet for detailed information on how various departments treat AP, SAT, ACT, and IB credit.

□ STEP 4 – Preparing to Register

There are instructional videos on how to look up and register for classes at fysenroll.lehigh.edu, but here are some helpful tips to get you started:

- Login to the Registration Portal via your Student Banner to review all course offerings for the Fall Semester, or
    - Access the class search tool directly at ras.lehigh.edu > Current Students > Class Schedule
- Select from the drop down, "2023 Fall Semester" and click "Continue"
- You can look up courses by Subject or by Attribute, which are linked to our distribution requirements



- Displayed results will tell you the CRN, course number, title, instructor, days, times, and credits of a course
- Clicking on the title of a course shows you important information such as:
    - Course description
    - Restrictions, which may prevent registration
    - Fees, which may be associated with the course
    - Current enrollment

□ STEP 5 – Schedule Building Strategy

Tips to strategically build your schedule in July:

- Make a list of the courses you **need** to register for;
- Make a list of the courses you would **like** to register for;
- Check if courses have prerequisites (via catalog), or registration permissions (via course schedule);
- **Determine which course(s), if any, you are absolutely required to take this fall*;**
- Register for the highest priority courses first;
- Next register for the course with the fewest available seats, and so on;
- If you are exploring your options and not required to take a strict set of courses, you should register for the course with the fewest available seats first.

***Example:** If you are following the Pre-Health track or pursuing a major in the Biological Sciences or Chemistry, you are required to take CHM 030: Introduction to Chemical Principles or CHM 040: Honors General Chemistry I, in your fall semester. You should register for a section of that course first, then the appropriate Math, then a first-year seminar and finally a section of first-year English (ENGL 001 or ENGL 011).

Mathematics Courses and Calculus Placement Guidelines

In all cases, **students should consult the *2023-2024 Course Catalog* (catalog.lehigh.edu) to determine the mathematics course(s) that are required and recommended by different degree programs.**

Introductory Calculus Courses:

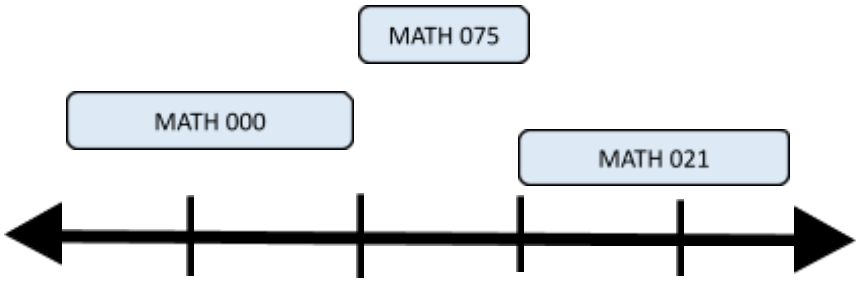
There is a big difference between calculus study at Lehigh and calculus at most high schools. A solid high school precalculus course is necessary background for calculus at Lehigh. Students need a strong foundation in functions and trigonometry to really thrive in calculus. Most students who take calculus in high school are accustomed to using a graphing calculator. **Calculators are not permitted in exams or quizzes in Lehigh calculus classes.** With different calculus sequences, the Mathematics Department is able to tailor its offerings to students with different preparations and needs for studying calculus.

Every student who intends to take an introductory Calculus class at Lehigh (except those who receive AP or transfer credit, see below) will be required to use an assessment provided by ALEKS from McGraw-Hill for placement, available beginning in June. Direct communication about ALEKS will be shared with all incoming students via their Lehigh email address. More information about ALEKS is provided below.

MATH 000: Preparation for Calculus	
2 credits, Fall semester only	
ALEKS Score:	60 or below
Who should take this course?	Students who are not ready to start Calculus at Lehigh but will require it for a major or minor program.
Course Description:	Intensive review of fundamental concepts in mathematics utilized in calculus, including functions and graphs, exponentials and logarithms, and trigonometry. This course is for students who need to take MATH 051, 081 or 021, but who require remediation in precalculus. **The credits for this course do not count toward graduation**, but do count toward GPA and current credit count.

MATH 075: Calculus I, Part A	
2 credits, Fall semester only	
ALEKS Score:	61 or greater
Who should take this course?	For students who need MATH 021 but do not meet the SAT or ACT score requirements to register for MATH 021.
Course Description:	Covers the same material as the first half of MATH 021. Meets three hours per week, allowing more class time for each topic than does MATH 021.
Completing MATH 075 and 076 substitutes for MATH 021. To complete the sequence, students will need to take MATH 076: Calculus I, Part B (2 credits) in the spring semester.	

MATH 021: Calculus I	
4 credits, Fall & Spring semesters	
ALEKS Score:	76 or greater
Who should take this course?	For students majoring in Mathematics, Physics, Computer Science, and certain Chemistry majors, or students who may transfer to Engineering.
Course Description:	Functions and graphs; limits and continuity; derivative, differential, and applications; indefinite and definite integrals; trigonometric, logarithmic, exponential, and hyperbolic functions.



ALEKS	44	60	76	92

Every student who intends to take an introductory Calculus class at Lehigh (except those who receive AP or transfer credit, see below) will be required to use an assessment provided by ALEKS from McGraw-Hill for placement, available beginning in June. ALEKS will administer an assessment that will provide a score, which will indicate the appropriate first semester Calculus course(s). ALEKS will also indicate the topics and areas for improvement and will provide modules to help you get ready for the Fall semester. After working through these modules, you have the opportunity to test again and improve your Calculus placement results. More details about ALEKS will follow soon.

Please note:

- If your Calculus placement is MATH 021 you may choose MATH 051 or 081 instead if appropriate for your intended major.
- MATH 021 serves as a replacement for MATH 081 or MATH 051 but not vice-versa.
- MATH 081 or MATH 021 satisfy the College of Business Calculus requirements but MATH 051 does not.
- Students outside of the College of Business require special permission to enroll in MATH 081.

Calculus Courses for students with AP, IB, or Transfer credit:

MATH 022: Calculus II	
4 credits, Fall & Spring semesters	
Who should take this course?	For students with credit for MATH 021 who intend to pursue a major requiring advanced Calculus.
Course Description:	Applications of integration; techniques of integration; separable differential equations; infinite sequences and series; Taylor's Theorem and other approximations; curves and vectors in the plane.

MATH 023: Calculus III	
4 credits, Fall & Spring semesters	
Who should take this course?	For Students with credit for both MATH 021 and 022 who intend to pursue a major requiring advanced Calculus.
Course Description:	Vectors in space; partial derivatives; Lagrange multipliers; multiple integrals; vector analysis; line integrals; Green's Theorem, Gauss's Theorem.

MATH 033: Honors Calculus III	
4 credits, Fall semester only	
Who should take this course?	For students with credit for both MATH 021 and 022 who have an interest in exploring the theoretical foundations of Calculus.
Course Description:	Same topics as in MATH 023, but taught from a more thorough and rigorous point of view. Students in MATH 033 will attend a regular MATH 023 lecture but one day a week recitation section for MATH 033 will be separate for those for MATH 023.

Please note: Students seeking placement into calculus II or higher must provide credentials to Registration & Academic Services (this includes **approved** TR, IB, or AP credit) prior to registration. **No change in registration will be allowed until the proper credentials arrive**, and the deadline is the 10th day of class (Friday, September 8, 2023). **No exceptions will be made.**

The Mathematics Department offers an anticipatory exam for students who feel that they have mastered the material of Math 21, Math 22, or Math 23, but do not have the credentials for approved credit. Please be aware that the success rate on this exam is typically very low. You may contact LUMath@lehigh.edu for information on the contents of this exam.

Advanced Placement Credit Information:

A score of 4 or 5 in the AB advanced placement exam
OR a 4 or 5 on the AB subscore of the BC exam =
***MATH 021 (4 credits)**

A score of 4 or 5 on the BC advanced placement exam =
***MATH 021 & 022 (8 credits)**

International Baccalaureate Exam: Students are awarded MATH 021 credit for a score of 5 or higher on the high-level IB Mathematics Exam.

- Receiving credit for MATH 021 exempts a student from having to take MATH 051 or 081
- Receiving credit for MATH 022 exempts a student from having to take MATH 052

Should I take a Math course my first semester at Lehigh?

If a major you are interested in will require calculus you should take math in the fall semester. Experience indicates it is unwise to let too much time elapse between your last high school calculus or precalculus course and your first college calculus course at Lehigh. Additionally, many science courses have calculus pre- or co-requisites. For these courses you must complete or enroll in the required calculus course before adding the science course to your schedule.

If your major does not need a calculus course you may wait to fill your mathematics requirement and explore other areas during your first semesters while getting used to the expectations of college level work.

A list of all CAS degree programs and their required math courses are available via the online catalog (catalog.lehigh.edu), and also the CASUNDERGRAD CourseSite (coursesite.lehigh.edu).

Students with questions about Math or Calculus placement should contact inadvise@lehigh.edu

Advanced Placement & College Credit Chart

Please use the chart below to determine what Advanced Placement credit you may receive from various Lehigh departments. You must have your scores submitted directly to Lehigh (code 002365). Any delay in submitting your scores will impact your ability to register for courses.

International Baccalaureate: Students who earn the International Baccalaureate may be granted credit in higher-level or advanced subjects with scores of 5 or better. All students will have their credentials evaluated on an individual basis for specific course equivalency. Lehigh's Registration & Academic Services Office must receive the Official IB transcript before credit will be assigned.

Please note: The official Advanced Placement rules and guidelines may be found in the 2023-2024 online catalog (catalog.lehigh.edu) and are subject to change annually.

Subject	Score	Method	Credit for:
Africana Studies	4	AP African American Studies	AAS 091 (4 cr)
Art	4	AP Art History	ART Elective (4 cr)
	5	AP Art History	ART 001 (4 cr) + ART 002 (4 cr)
	5	AP Studio Art Exam	ART 073 (4 cr)
Biology	4 or 5	AP Biology	BIOS 001 (4 cr)
Chemistry	5	AP Chemistry	CHM 030 (4 cr)
Computer Science	4 or 5	AP Computer Science A	CSE 007 (4 cr)
	4 or 5	AP Computer Science Principles	CSE 012 (3 cr)
Earth & Environmental Science	4 or 5	AP Environmental Science	EES 002 (3 cr) + EES 022 (1 cr)
Economics	4 or 5	AP Microeconomics	ECO elective (2 cr)
	4 or 5	AP Macroeconomics	ECO elective (2 cr)
	4 or 5	Both AP Microeconomics AND AP Macroeconomics	ECO 001 (4 cr) + ECO elective (2 cr)
English	4	AP English Language & Composition or AP English Literature & Composition	ENGL 001 (3 cr)
	5	AP English Language & Composition or AP English Literature & Composition	ENGL 001 (3 cr) + ENGL 002 (3 cr)
	700-749	SAT Evidence-Based Reading & Writing Exam	ENGL 001 (3 cr)
	750 or greater	SAT Evidence-Based Reading & Writing Exam	ENGL 001 (3 cr) + ENGL 002 (3 cr)
	6 or greater	SAT Optional Essay Exam - at least a score of 6 on all three parts	ENGL 001 (3 cr)

	32 - 34	ACT English Exam	ENGL 001 (3 cr)
	35 or greater	ACT English Exam	ENGL 001 (3 cr) + ENGL 002 (3 cr)
English	8 or greater	ACT Optional Writing Test	ENGL 001 (3 cr)
	5 or greater	International Baccalaureate HL Exam	ENGL 001 (3 cr)
History	5	AP American History	HIST Elective (4 cr, SS Distribution Req)
	5	AP European History	HIST Elective (4 cr, SS Distribution Req)
	5	AP World History	HIST Elective (4 cr, SS Distribution Req)
Mathematics	4 or 5	AP Calculus AB Exam *or an AB subscore of 4 or 5 on the AP Calculus BC Exam	MATH 021 (4 cr)
	4 or 5	AP Calculus BC Exam	MATH 021 (4 cr) + MATH 022 (4 cr)
	5	High-level IB Mathematics Exam	MATH 021 (4 cr)
	4 or 5	AP Statistics	MATH 012 (4 cr)
Modern Languages & Literatures	4	Any of the AP Language & Culture subject exams	Interm Level I (4 cr)
	5	Any of the AP Language & Culture subject exams	Interm Level I (4 cr) + Interm Level II (4 cr)
	4 or 5	AP Spanish Literature & Culture	SPAN 151 (4 cr)
Music	5	AP Music Theory	MUS Elective (2 cr)
Physics	5	AP Physics 1: Algebra-Based	PHY 011 (4 cr) + PHY 012 (1 cr Lab)
	4 or 5	AP Physics C: Mechanics	PHY 011 (4 cr) + PHY 012 (1 cr Lab)
	4 or 5*	AP Physics C: Electricity & Magnetism *Only eligible if student also receives AP credit for PHY 011	*PHY 021 (4 cr) + PHY 022 (1 cr Lab)
Political Science	4 or 5	AP United States Government & Politics	POLS 001 (4 cr)
	4 or 5	AP Comparative Government & Politics	POLS 003 (4 cr)
Psychology	4 or 5	AP Psychology	PSYC 001 (4 cr)

Pre-Health Information

Medical, dental, and other health professional schools are looking for students who have pursued a challenging and well-rounded education, and who have successfully completed the necessary prerequisite coursework. **No specific major is required for pre-health track students**. Please contact the pre-health director, Autumn Moser (aum221@lehigh.edu), for enrollment in the Pre-Health Advising CourseSite, which will provide you helpful information and resources to support you as a pre-health track student at Lehigh. Appointments may also be scheduled through your Handshake account (https://lehigh.joinhandshake.com).

Sample first-year schedule for pre-health track:

FALL semester first year	Credits	SPRING semester first year	Credits
ENGL 001 (or 011 if AP or placed out of 001)	3	ENGL 002 (or PSYC 001 or SOC 001 if placed out of ENGL 002)	3 or 4
MATH 051 or 021	4	MATH 052 or 022	3 or 4
CHM 030 or 040 (or 031 if AP)	4	CHM 031 or 041	4
First-Year Seminar	3 or 4	BIOS 041 + 042L (or 043L)	4

- **AP credits and pre-health:** AP credits are generally accepted by medical schools, with more advanced study in that discipline suggested (consult with the pre-health director).
- **Biology and pre-health:** Lehigh's introductory biology course and lab (BIOS 041 + 042L: Bio Core I: Cellular & Molecular Biology) are offered only in the spring semester. CHM 030 or 040 is a pre-requisite for BIOS 041 + 042L.
- **Calculus and pre-health:** Both the 20 and the 50 series of calculus are appropriate for pre-health students. If students plan to major in a discipline that requires upper-level calculus courses (e.g., Calc III), then the 20 series must be taken.
- **Chemistry and pre-health:** Both the 30 and the 40 series of Chemistry are appropriate for pre-health students. Note: CHM 030 and CHM 031 are both offered in the fall and the spring semesters. CHM 040 is offered in the fall semester, and CHM 041 is offered in the spring.
- **The "traditional" timeline** of matriculating to health professional school directly after graduation is no longer followed by the majority of Lehigh and national applicants. Students typically apply to medical school after graduation and take a gap or bridge year to gain more experience. Waiting does not impact the success of the application.

Sample 4-year schedule to show placement of necessary courses for direct matriculation to med school*		
First Year	CHM 030 or 040 + 031 or 041	BIOS 041 + 042L
	ENGL 001 + 002 or 011	MATH 051 or 021 + 052 or 022
Sophomore Year	CHM 110 + 111L + 112 + 113L	BIOS 115 + 116L
	BIOS 044 + 045L	Statistics
	SOC 001	
Junior Year	PHY 010/011 + 012L + 013/021 + 022L	BIOS 371 + 372
	PSYC 001	MCAT in spring /summer
	Lehigh Committee Process (for institutional letter of support)	
Junior/Senior Summer	Submit primary and secondary applications to medical school	
Senior Year	Interviews throughout. Decisions from October to the following summer.	

**Requirements for at least one degree program and the college distribution requirements must also be satisfied!*

Introductory prerequisite and corequisite courses to remember:

For:	Prerequisite(s)	Or corequisite
BIOS 041	CHM 030 or 040	CHM 030 or 040 (not recommended)
BIOS 042 (Lab)	BIOS 041	BIOS 041 (recommended)
BIOS 115	BIOS 041	
BIOS 116	BIOS 115	BIOS 115 (recommended)
BIOS 044	BIOS 041 + 042 or 043 (Lab)	
BIOS 045 (Lab)	BIOS 044	BIOS 044 (recommended)
CHM 031 or 041	CHM 030 or 040 and MATH 021, 031, 051, or 075 + 076	
CHM 110	CHM 031 or 041	
CHM 111 (Lab)	CHM 110	CHM 110 (recommended)
PHY 010 or 011	MATH 021, 031, 051, or 075 + 076	MATH 021, 031, 051, or 075 + 076
PHY 012 (Lab)	PHY 010 or 011	PHY 010 or 011 (recommended)
PHY 013	PHY 010 or 011 and MATH 021, 031, 051, or 075 + 076	MATH 021, 031, 051, or 075 + 076
PHY 021	PHY 010 or 011 and MATH 022, 032, or 052	
PHY 022 (Lab)	PHY 012 and PHY 031 or 021	PHY 013 or 021 (recommended)

List of courses needed to prepare for MCAT and fulfill requirements for most US medical† schools (asterisked courses *typically* taken in *first year or **second year)	
Biology (3 semesters)	*BIOS 041/042L (4) + **BIOS 115/116L (4) + 044/045L (4)
Chemistry (2 semesters)	*CHM 030 or 040 (4) + CHM 031 or 041 (4)
Organic Chemistry (2 semesters)	**CHM 110/111L (4) + 112/113L (4)
Physics (2 semesters)	PHY 011 or 010 + 012L (5) + PHY 021 or 013 + 022L (5)
Biochemistry (2 semesters)	BIOS 371 (3) + 372 (3)
Calculus (2 semesters recommended)	*MATH 051 or 021 (4) + MATH 052 (3) or 022 (4)
Statistics (1 semester)	MATH 012 (4) or department-specific statistics course(s) (e.g., BIOS 130)
Psychology (1 semester)	PSYC 001 (4)
Sociology (1 semester)	SOC 001 (4) or HMS minor
English (2 semesters)	*ENGL 001 + 002 (6) OR ENGL 001 (AP) + 011 (6)

†Dental and other health professional programs have similar requirements.

Pre-Law Information

Following the recommendations of the Association of American Law Schools, Lehigh does not have a prescribed pre-law curriculum or major. You may foster the relevant skills in critical analysis, logical reasoning, and communication through challenging coursework of significant breadth and depth in all majors at Lehigh. Courses that emphasize reading and writing, analytical thinking, and public speaking will help to develop the skills necessary to succeed in law school. For those interested students, law-related courses are offered in the College of Arts and Sciences (Constitutional Law, Civil Rights and Civil Liberties, Law and Order) and the College of Business and Economics (Introduction to Law and Legal Environment of Business). Contact the pre-law advisor for enrollment in the Pre-Law Advising Course Site; appointments may also be scheduled through your Handshake account (https://lehigh.joinhandshake.com).

P.C. ROSSIN COLLEGE OF ENGINEERING AND APPLIED SCIENCE | LEHIGH UNIVERSITY | COLLEGE OF ARTS AND SCIENCES

May 2023

Dear Members of the Class of 2027:

The following page contains titles for this fall's College of Arts and Sciences First-Year Seminars. These courses address a wide range of engaging subjects in a small classroom setting and are taught by some of Lehigh's very best faculty. One of the primary goals of these seminars is to assist you in transitioning from high school to college, with an eye toward critical thinking and active classroom participation. A CAS First-Year Seminar is a graduation requirement of the Arts-Engineering program.

Detailed descriptions of these seminars and brief biographies of the instructors can be found at go.lehigh.edu/firstyearseminars.

I encourage you to review all of the course descriptions in this year's First-Year Seminar Program. We advise that you select a seminar in a subject area different from that of your intended major to construct a schedule that allows you to explore. You should initially select several seminars you find intriguing and then see which one best fits your schedule once you have selected your other first semester courses. We ask you to consider several seminars since they have limited enrollment capacity and they may have time conflicts with your other fall courses. Although it isn't always possible for every student to get their first choice of seminars, I am confident you will find many engaging seminar options.

We are excited to have you joining us as part of the Class of 2027. Once you have a chance to review all of the seminars being offered I'm certain you will be excited by the incredible range of intellectual curiosity within the College of Arts and Sciences.

Sincerely,

Dr. Sabrina Jedlicka
Associate Dean for Academic Affairs

Beth Pelton
Assistant Dean of Undergraduate Advising

First-Year Seminars
College of Arts & Sciences
Fall 2023

Department	Course Title
ANTH 090-011 (AAS 090-010)	Multiracial Identities
ART 090-010	Sketching and Seeing: Does drawing teach you to see the world more clearly?
ART 090-012 (EES 090-012)	Can Art Inspire Climate Change Action?
ASIA 090-011	Globalization in Asia
ASIA 090-012 (MLL 090-011, WGSS 090-010)	How Does Silence Speak to You?
ASTR 090-010	Planetary Defense: Fact and Fiction of Protecting Earth from Asteroid Impact
BIOS 090-010	How Can We Harness the Oceans to Solve Societal Needs?
COMM 090-011 (AAS 090-011)	What is media's role in constructing racial identity?
EES 090-010	From Ice Age to Greenhouse Earth
ENGL 090-010	The Environmental Imagination
ENGL 090-011 (GS 090-011)	What are the Histories and Cultures of Data?
HMS 090-012 (ENGL 090-012, CGH 096-012)	Are We Living in the Post-Antibiotic Apocalypse?
HIST 090-010	The 1960's
HIST 090-011	Wild West
IR 090-010	Russia's War in Ukraine
IR 090-011	East Asian International Relations
MLL 090-011 (GS 090-010)	Is Censorship Necessary?
MUS 090-010	History of Keyboard Instruments
PHIL 090-010	What is Facism?
PHY 090-010	Ghosts of Chernobyl: Do the benefits of nuclear energy outweigh its risks?
POLS 090-010	U.S. Climate Change Challenges
PSYC 090-010 (REL 090-010)	What Makes for a Meaningful Life?
SOC 090-012	Women, Work, and Family in East Asia
THTR 090-012	Can Artificial Intelligence Make Art?

For detailed course descriptions, additions to this list, and brief biographies of the instructors, please visit go.lehigh.edu/firstyearseminars