

PFP 2025

ACADEMIC PROGRAMS OPTIONS GUIDE



Welcome to the University of Pennsylvania 2025 Pre-First Year Program (PFP). Your course selections for PFP are determined by your primary school of enrollment. All the academic programs have been designed by the faculty of the undergraduate schools specifically for the Pre-First Year Program. They will be challenging, engaging, and stimulating. Perhaps more importantly, they will provide you with a chance to meet important faculty and get acquainted with their teaching styles and expectations. Some courses, such as Writing and Math, are common to more than one school. Others, such as Economics or Physics, are specific to individual schools. The various school curricula are described in the following pages -- a few notes will be helpful:

- **Writing:** Students enroll together in writing seminars regardless of their school enrollment, with the exception of Engineering students who do not have a writing seminar.
- **Math:** Incoming first-year students should take the Online Canvas Math Diagnostic Placement Exam during the advance registration period. The results of the Math Diagnostic will be discussed with your advisor and the exam score will be used, in conjunction with a student's math experiences, to determine the appropriate placement in a Math course (including your PFP math course). Although Nursing students do not take Math during the Pre-First Year Program, it is still advisable that they complete the Math Diagnostic to better prepare for academic-year planning. Instructions on taking the exam will be provided at a later date.
- **SEAS:** Students in Engineering automatically take Engineering Math, regardless of assessment results. Students will be tracked after week one or two of the program.
- **SAS:** Students in the College of Arts & Sciences may select a curriculum focused on Sciences or a curriculum focused on Humanities/Social Sciences, depending on interest and long-term goals. You will make your course selection on the PFP Questionnaire through CANVAS.

PFP 2025

ACADEMIC PROGRAMS OPTIONS GUIDE



ENGINEERING	WHARTON	NURSING	ARTS & SCIENCES Sciences/Pre-Health	ARTS & SCIENCES Humanities/Social Sciences
Engineering Math	Mathematics (level based upon assessment results)	Nursing Science	Mathematics (level based upon assessment results)	Mathematics (level based upon assessment results)
Engineering Programming	Writing	Writing	Writing	Writing
Engineering Lab	Economics	Nursing Lab	Biology	Political Science
Engineering Physics	Management Communication			

Please see course descriptions for detailed course content. PFP courses serve as a preview or introduction to the course material and do not replace courses that students might register for during the academic year. Courses may be subject to change.

PFP 2025

ACADEMIC PROGRAMS OPTIONS GUIDE



You will be placed in the appropriate curriculum depending on your primary school of enrollment. Only in the College of Arts & Sciences students have options. The following short descriptions are designed to help you get a feel for the courses you will be taking this summer. Descriptions are subject to change.

COURSES COMMON TO MORE THAN ONE SCHOOL	WRITING	<p>English Writing: Place and Belonging</p> <p>This writing-intensive course is designed to give students a clear sense of the demands and expectations of college-level writing. Although the class focuses on writing about literature, students will learn general principles and strategies for good writing across the disciplines. "Place and Belonging" will introduce students to a range of literature about the ways our social and geographical locations shape our sense of self and our personal feelings of connection or alienation.</p> <p>Students will do some kind of written work, formal or informal, for every class meeting, and will have opportunities to read and comment on one another's writing in both large and small group sessions. They will also learn about research methods and the basics of bibliography and citation, using these skills to write a short (3-5 page) research paper. In order to receive academic credit for the class, students are required to attend all eight meetings and to complete all related exercises (or obtain advance permission to miss any meetings they cannot attend), to complete all reading assignments, and to submit all written work on time.</p>
	MATHE- MATICS	<p>There will be several math course options for College of Arts and Sciences and Wharton students. Your math course assignment will be made based upon the results of the Math Diagnostic Exam.</p> <ul style="list-style-type: none">• Math 1070: An introduction to quantitative reasoning and mathematical modeling. Prepares students for MATH 1070 or MATH 1300.• Math 1300: Covers Intense Algebra and Pre-Calc Review and Introduction to Limits. For students who may or may not be confident in their math preparation and could benefit from a review of Algebra and Pre-Calculus. Prepares students for Math 1300.• Math 1400: Covers Derivatives, Applications and Integrals. For students who have taken Calculus and are confident in their Calculus knowledge base. Prepares students for Math 1400.• Math 1410: Covers vectors, Matrices, Multi-variable derivatives and Integrals. For students who have excelled in BC Calculus. Prepares students for Math 1410.• Math 1700: Ideas in Mathematics. Covers math in everyday life and prepares you for Math 1700. (recommended for non-STEM majors) <p>*Please note that students will be placed in the course that aligns with the Math Diagnostic score.</p>

PFP 2025

ACADEMIC PROGRAMS OPTIONS GUIDE



NURSING

NURSING SCIENCE

This course uses an interdisciplinary approach to study diabetes mellitus. The basics of general, biological and nutritional chemistry as well as the physiology necessary for an understanding of the metabolic basis of diabetes mellitus will be covered. The course includes lectures, anatomy and nursing physical assessment laboratory activities, and application of knowledge via case study discussion. The course is designed to provide an introduction to the Nursing curriculum and related skills using the disease diabetes mellitus as its framework. In addition to classroom lectures, an introduction to physical assessment and nursing interventions for patients with diabetes, anatomy laboratory activities, and exposure to nursing research are provided. The course will stress active student learning.

WHARTON

ECONOMICS

This course will be an introduction to the semester-long integrated economics course consisting of two parts—microeconomics and macroeconomics—that Wharton students will take during the Fall semester of their Freshman year. The PFP course, which will consist of lectures, assignments and two exams, will focus on selective topics from microeconomics as well as macroeconomics. In the microeconomics part, the PFP course will focus on an analysis of consumer behavior (specifically, utility analysis, indifference curves framework, demand elasticity), cost structure of firms and their pricing, and output behavior under perfect competition. In the macroeconomics part, students will study measurement of national output, nature of full employment, inflation rate, determinants of long-run economic growth and introduction to the Aggregate Demand-Aggregate Supply (AD-AS) model used to analyze business cycles.

MANAGEMENT COMMUNICATION

Management Communication introduces students to strategies for developing leadership skills that are essential for successful matriculation through Wharton and laying the foundation for a professional career. The course places emphasis on self-reflective writing, oral presentations and teamwork while exploring topics such as emotional intelligence, conflict resolution, goal setting, time management, business etiquette and personal branding. In addition, the students work in teams to conduct a market analysis for a start-up company.

PFP 2025

ACADEMIC PROGRAMS OPTIONS GUIDE



ENGINEERING

ENGINEERING MATH

This course will provide a preview of Engineering Mathematics at Penn. It is customized to interface with Penn's Engineering Calculus sequence. The course begins with an overview of what Mathematics is and is good for, and then will split into single-variable and multi-variable tracks depending on student backgrounds. Everything is designed to show how the Mathematics will be relevant to the many types of Engineering majors available at Penn. Students will come out of the course ready for any mathematical challenges and better-informed about what Engineering at Penn means.

ENGINEERING PROGRAMMING

The course will give students experience in designing, writing, and debugging basic programs in Java. Students will be introduced to the fundamentals of programming with variables, data types, control flow, and functions. The assignments will allow students the opportunity to solve real problems using their new skills in programming.

ENGINEERING LAB

This course is a four-week multi-disciplinary orientation in the School of Engineering and Applied Science. Each academic department will present an overview of the course requirements, along with careers and research opportunities. Each overview will be followed by a lab to reflect the academic experience of that discipline. The class will culminate in a final project, integrating mechanical and electrical engineering, as well as computer science.

ENGINEERING PHYSICS

This course covers classical physics as applied to the kinematics and dynamics of static and of moving bodies. It begins with a description of position, velocity and acceleration (kinematics), and explores how these concepts can be used to describe and understand the motion of a particle through space. The course then addresses the question of what causes motion (dynamics), and this leads to the concept of force. The connection between kinematics and dynamics is then made through Newton's three laws of motion and, specifically, through the vector equation, $F = ma$. The remainder of the course discusses various applications of these ideas.

PFP 2025

ACADEMIC PROGRAMS OPTIONS GUIDE



BIOLOGY

The transformation of energy from one form to another, the passing on of genetic information from parents to offspring and the adaptation of organisms to their environments are foundational concepts in biology. By the end of this course, you will be able to use these concepts to explain why a disruption in cellular respiration helps infants to keep warm, why parents and offspring sometimes look alike and sometimes don't, and why skin color varies so widely throughout the world. Another focus of this course is to engage you in learning strategies that will help you succeed in college-level biology.

ARTS & SCIENCES

PSYCH

Introduction to the Moral Mind: This course introduces students to the scientific study of human moral psychology. It will cover several topics central to our understanding of humans as moral beings, including: What is morality? What role does morality play in social life? How do people make moral judgments? Is there such a thing as true altruism? Why do people sometimes behave immorally? What is the nature of human evil (and is there such a thing)? What role does morality play in political disagreement? Lectures will provide an introductory overview of research in these and other topics and will be accompanied by readings that will enhance students' understanding. Beyond the topics covered above, this course will also help students better understand the nature of hypothesis testing in psychological research, the strengths and weaknesses of different experimental designs, how to detect confounds in experimental designs, how to draw accurate inferences from data, and how to communicate scientific findings