Yale College offers several interdepartmental course sequences for first-year students through the First-Year Seminar Program. SCIE 030 and 031, Current Topics in Science, presents a broader range of topics than standard courses and highlights the interdependence of the scientific disciplines. For first-year students interested in research, SCIE 010 and 011, Perspectives on Biological Research, combines lectures from Yale faculty on their own research, as well as instruction on those skills essential for any successful scientist. In addition to these yearlong courses, a single term course, SCIE 099, Introduction to Research Methods in Physics and Biology, spans both the classroom and laboratory, providing an immersive introduction to scientific research for students interested in science but who do not have prior research experience. Application information is available on the First-Year Seminar website.

View Courses

Courses

* SCIE 010a, Perspectives on Biological Research  Sandy Chang
The goal of this two course series is to teach Science, Technology, and Research Scholars 1 (STARS1) passionate about conducting research in the life sciences the skills necessary for all scientists and the outstanding research opportunities available at Yale. During the first semester, students read primary research papers on the COVID19 pandemic and emerge from this course with an appreciation for how rapidly scientific knowledge can be utilized to combat a deadly disease. Students learn how to (1) read the primary scientific literature, (2) present this material to the class and, (3) write a group grant proposal. During the second semester, students are required to identify a research lab that they will work in and learn how to write an independent grant proposal for funding to conduct summer research. Credit for SCIE 010 only on completion of SCIE 011; one course credit, one SC credit, and guaranteed summer research funding is awarded for successful completion of the grant proposal and one year’s work. Prerequisite: Score of 5 on AP biology test or equivalent on IB biology exam. Enrollment limited to first-year students. Preregistration required; see under First-Year Seminar Program. WR, SC ½ Course cr

* SCIE 099b / MB&B 099b / MCDB 099b / MENG 099b / PHYS 099b, Introduction to Research Methods in Physics and Biology: Preparing for a First Research Experience  Staff
Spanning both the classroom and laboratory, this seminar course provides an immersive introduction to scientific research. Students build practical laboratory skills, computational competency, and begin to build fluency in the structures and modes of communication that define modern research. The course also facilitates identification of a laboratory mentor and devising a research proposal (with mentorship) for competitive summer research fellowship applications. This class is open to first-year students, interested in any STEM major, who have no prior research experience. This course does not count toward major requirements. Enrollment limited to first-year students. Preregistration required; see under First-Year Seminar Program.