Mathematics and Physical Sciences (MPS)

Courses

MPS 1 Navigating the Mathematical and Physical Sciences 1 Unit

Terms offered: Fall 2023, Fall 2022
This course is offered to support first-year students in the mathematical and physical sciences with their transition to UC Berkeley. This course will highlight relevant resources on campus and help students in building community and a sense of belonging. Students will receive peer mentorship and will have the chance to learn from continuing students, graduate students and faculty about classes, curriculum, internships, and research. This course will be open to all freshman and sophomore students who are intended MPS majors (mathematics, physics, astronomy, and earth and planetary science majors).
Objectives & Outcomes

Course Objectives: Upon completion of this course, students will gain:
An enhanced mentoring network.
Awareness of the written and unwritten rules of academic life and how to navigate them successfully.
Knowledge of how a mathematics and physical sciences major connects to career opportunities and strategies for maximizing advancement into these career paths as well as exploring the potential for subsequent graduate study.
Connections to successful scientists and advanced students with whom they can identify and to whom they can relate.

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

Fall and/or spring: 15 weeks - 1.5 hours of lecture per week

Additional Details

Subject/Course Level: Mathematics and Physical Sciences/ Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

MPS 101 Careers in the Mathematical and Physical Sciences 1 Unit

Terms offered: Not yet offered
This course provides interactive career-development activities and coaching to help you transition from university life to a fulfilling and financially successful long-term career. It focuses on all types of careers that can be pursued with an MPS degree, including traditional science careers, jobs in tech and finance, and creative career paths. In weekly group meetings, you will create an individual development plan, prepare and review application materials for jobs or internships, conduct practice interviews, develop skill in speaking about technical subjects, and take part in a suite of in-person and online networking activities. This course will include visits by alumni and other external speakers from a range of career stages.
Hours & Format

Fall and/or spring: 15 weeks - 1 hour of discussion per week

Additional Details

Subject/Course Level: Mathematics and Physical Sciences/ Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

Instructor: Boos

MPS 375 Professional Preparation: Supervised Teaching in Math and the Physical Sciences 2 Units

Terms offered: Fall 2025, Spring 2025, Fall 2024
Mandatory for first time GSIs in Math, Physics,Astronomy, and EPS. Topics include pedagogy theory, effective teaching methods, educational objectives, alternatives to standard classroom methods, reciprocal classroom visitations, and guided group discussions. We will provide resources, tools, feedback for your teaching and readings on pedagogy in STEM. The discussion section will be devoted to discussions relevant to the department in which you are teaching and will also be used as a forum for you to share your struggles, successes, and experiences with your peers.
Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

Fall and/or spring: 15 weeks - 1 hour of lecture and 1 hour of discussion per week

Additional Details

Subject/Course Level: Mathematics and Physical Sciences/Professional course for teachers or prospective teachers

Grading: Offered for satisfactory/unsatisfactory grade only.