

ROB 502: Motion Planning

Fall 2022 Syllabus

Instructor:

Dmitry Berenson
Office: 2268 FMCRB
Office Hours: By appointment
Email: dmitryb [at] umich.edu

Time: Mon, Weds 1:30pm - 4:30pm

Location: 1050 FMCRB

Course Website: <http://web.eecs.umich.edu/~dmitryb/courses/fall2022pfr/index.html>

The instructor reserves the right to modify the course outline and policies mentioned in this syllabus at any time during the term.

Overview: Graduate level project-based programming and computer science course for Robotics engineers. Topics include data representation, memory concepts, debugging, recursion, search, abstractions, threading, and message passing. The average student will have already written MATLAB programs about 250-500 lines long and will have basic familiarity with C syntax.

Prerequisites: None

Course Layout: This course will consist of lectures, lab exercises, and homeworks intended to teach students the fundamentals of programming as well as how to apply these fundamentals to code relevant for robotics. Lectures will precede lab exercises on key programming topics and students will complete quizzes to demonstrate their understanding of material presented in labs. Homeworks will involve more extensive programming than labs and will seek to apply concepts presented in class to more involved programming problems.

Lectures and Labs: Students are expected to attend all classes and labs. It is essential that you carefully review any required reading before each class.

Laptops: Students are expected to bring their laptops to every class and lab.

Homework: Homework will be assigned throughout the semester. All homework will have a due date and no late homework will be accepted. **All homeworks must be done individually.**

Course Schedule: The course schedule is available on the course website.

Grading:

Quizzes	30%
Homeworks	70%
Participation* in class and on Piazza	up to 3% extra credit

*Attendance does NOT count toward participation credit. Participation is defined as asking/answering questions or making non-trivial comments in class during lecture or lab. Meaningful questions and answers on Piazza will also be counted toward participation credit.

Academic Integrity: All work submitted for credit must be your own. Plagiarism is cheating and will be dealt with accordingly. Review the college of Engineering's Honor Code here:
<http://www.engin.umich.edu/college/academics/bulletin/rules>

Student Disability Services: If you need course adaptations or accommodations because of a disability, or if you have medical information to share with the instructor, please make an appointment with your instructor within the first week of classes.