# ROB 498: Robot Learning for Planning and Control
# Winter 2023 Syllabus

**Instructors**: Nima Fazeli and Dmitry Berenson

**Time**: Mon, Weds 3:00pm - 4:30pm

**Location**: G906 COOL

**Course Website**:
http://web.eecs.umich.edu/~dmitryb/courses/winter2023robotlearning/index.html

*The instructors reserve the right to modify the course outline and policies mentioned in this syllabus at any time during the term.*

**Overview**: An introduction to modern machine learning methods for control and planning in robotics. Topics include function approximation, learning dynamics, using learned dynamics in control and planning, handling uncertainty in learned models, learning from demonstration, and model-based and model-free reinforcement learning. Students will implement the above learning algorithms on robots in simulation.

**Prerequisites**:
- Linear Algebra (ROB 101 or Math 214 or Math 217)
- EECS 281

**Course Layout**: This course will consist of lectures, reading, and implementing and presenting a final project employing the ideas covered in the class. Students will complete quizzes, homeworks, and a final project report.

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

**Homework**: Homework will be assigned throughout the semester. All homework will have a due date and no late homework will be accepted (except using late-day tokens via autograder). **All homeworks must be done individually**.

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

**Grading**:

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| Homeworks | 50% |
| Quizzes (drop lowest) | 15% |
| Final Project | 35% |

**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.