

	<div style="text-align: center;">  <p>Carleton University School of Computer Science</p> <p>COMP 2801</p> <p>Introduction to Robotics</p> <p>Course Outline (F2016)</p> </div>	
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Course Information

- **Instructor:** Mark Lanthier (Office 5302HP, Phone: 520-2600x8305, Email: lanthier@scs.carleton.ca)
- **TA:** Caelan Shaw (Email: CaelanShaw@cmail.carleton.ca)
- **Class:** Tuesdays and Thursdays from 11:30 - 1:30 in room 3115HP

Course Description

This course has been designed to provide you with an introduction to robotics so that you will understand some of the issues involved with building and programming mobile robots. It will give you hands-on experience in working with real hardware that do not always perform as you would expect. The focus is on programming the robots to make use of a variety of sensors and controlling motors.

Topics Covered

- Building and Programming Various Robots
- Motors and Gearing
- Wheeled Locomotion Models
- Position Estimation
- Balancing and Acceleration
- Legged Locomotion Models
- Sensors and Sensor Calibration
- Behavior-Based Programming

Prerequisites

A passing grade in COMP1406 is **required** in order to take this course.

Evaluation

Component	Weight	Due Date
20 Labs	3% each	two each week starting Tuesday, September 13th
2 Lab Challenges	5% each	Tuesday, November 1st and Tuesday, November 15th
Lab Competition	10%	Tuesday, September 20th in class
Final Exam	20%	(to be announced)

Laboratory Software

The labs require you to pre-purchase a robotics kit (available from the Science Stores here on campus). All necessary software is freely available on-line. There is no textbook for this course.

Attendance

You MUST attend all classes ... each lab assignment must be completed in the classroom before you leave. 80% of your grade is based on being in the lab each time.

Undergraduate Academic Advisor

The Undergraduate Advisor for the School of Computer Science is available in Room 5302C HP, by telephone at 520-2600, ext. 4364 or by email at undergraduate_advisor@scs.carleton.ca. The undergraduate advisor can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisor will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and the Writing Tutorial Services.

University Policies

- **Student Academic Integrity Policy**
Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of F in the course or even being expelled from the program or University. Some examples of offences are: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found in the Undergraduate Calendar.
- **Plagiarism**
As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Such reported offences will be reviewed by the office of the Dean.
- **Unauthorized Co-operation or Collaboration**
You are not allowed to work with another student on your lab assignments. Each lab must be completed on your own.

Equity Statements

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

- **Pregnancy obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: <http://www2.carleton.ca/equity/>
- **Religious obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: <http://www2.carleton.ca/equity/>
- **Academic Accommodations for Students with Disabilities:** The **Paul Menton Centre** for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical

conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your **Letter of Accommodation** at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (*if applicable*). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (*if applicable*) at <http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/>

- You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at <http://www2.carleton.ca/equity/>

Medical Certificate

The following is a link to the official medical certificate accepted by Carleton University for the deferral of final examinations or assignments in undergraduate courses. To access the form, please go to <http://www1.carleton.ca/registrar/forms/>