



UNIVERSITY OF CALGARY

DEPARTMENT OF MATHEMATICS AND STATISTICS COURSE OUTLINE

Course: Math 651 – Topics in Applied Mathematics **Dates:** January 09, 2017 – April 12, 2017

1.

Lecture	Day	Time	Location	Instructor	Office	Phone	Email	Office Hours
01	MTW	17:00-20:00 (MST)	MS 337	Michael Lamoureux	MS 514	220-8214	mikel@ucalgary.ca	MTW 15:00-16:00

Lectures will be held only on the weeks of January 9, February 13, March 13 and April 10.

Students from outside the University of Calgary will attend lectures by videoconference (BlueJeans or Skype)

Desire 2 Learn (D2L): <https://d2l.ucalgary.ca/d2l/home>

Department of Mathematics and Statistics – MS476 Telephone number – 403-220-5210

2. **Prerequisites:** Math 277 or 331, MATH 311, AMAT 411 and 413, and one of CPSC 215, 231 or 235. Or department consent.

3. **Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Project Proposal:	20%
Team work & collaboration:	15%
Oral Presentation:	15%
Final Project:	50%

Each piece of work (proposal, presentation, final project, and overall collaboration) completed by the student will be assigned a grade on the scale of A thru F. The student's score for the various components listed above will be combined with the indicated weights to produce an overall grade for the course [bearing in mind that grade of D+ or below will result if the student does not complete the final project].

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also Section E.6 of the University Calendar. In the unlikely event of a health problem, the [Physician/Counsellor Statement Form](#) must be accompanied by either "[Application for Deferred Final Examinations](#)" or an "[Application for Deferment of Term Work](#)" in order to gain approval for such request. For all other missed term work such as quizzes, assignments or midterms, the [Physician/Counsellor Form](#) must be handed directly to your course instructor for approval.

5. Course Materials:

Suggested Texts: Mathematical Models in the Applied Sciences, A.C. Fowler
Practical Applied Mathematics. S. Howison
A Primer on Scientific Programming in Python, H.P. Langtangen
<https://hplgit.github.io/primer.html/doc/pub/half/book.pdf>

Computing resources: Students will use the PIMS/UCalgary Jupyter Hub at ucalgary.syzygy.ca to access coding resources in Python, Julia and R. Students should have access to their own computing device (laptop or desktop), and the ability to install open source software such as Latex, Python, Julia, Jupyter, Git, C/C++ compilers, and similar. Students may also use commercial software (e.g. Matlab), but this is not a requirement of the course.

5. **Examination Policy:** Students should read the Calendar, [Section G](#), on Examinations.

7. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties
- (b) **Assembly Points:** In case of an emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- (c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: [Calendar entry on students with disabilities](#) and [Student Accessibility Services](#). Students needing an Accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Mathematics and Statistics, Jim Stallard, by email at jbstall@ucalgary.ca or by phone at 403-220-3953.
- (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 403-220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.
- (f) **Student Union Information:** VP Academic Phone: 220-3911 Email: suvpaca@ucalgary.ca.
SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca; [Student Ombudsman](#)

- (g) Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (h)** At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.