

# CIS\*2460 F17 – Modelling of Computer Systems

## Course Outline

**Lecturer:** Prof. Mark Wineberg  
MCLN 229

**Office Hours:** T, Th – 1 pm to 2pm

**Email:** wineberg@soc.uoguelph.ca

**Prerequisites:** CIS\*2500 (Programming II)

**Lectures:** MINS 106 – Tues., Thur. 10:00am - 11:20am

**Labs:** ROZH 108 – Mon. 7:00pm - 8:50pm  
or ROZH 109 – Wed., 7:00pm - 8:50pm

**Textbook (Required):** *Discrete-Event System Simulation*, Fifth Edition  
J. Banks, J.S. Carson II, B.L. Nelson and D.M. Nicol  
Pearson Prentice Hall, 2009 (ISBN 978-0136062127)

**Course Website:** Webadvisor

### Course Description:

Discrete simulation based on event queues. Random number generation. How to generate input data, measure and evaluate results using standard statistical tests. Model calibration and validation. Algebraic, probabilistic and simple queuing models of software and hardware operation.

### Grading:

[S]	Small Assignments	2 x 5%	= 10%	
[A]	Assignments	4 x 10%	= 40%	
[MT]	Midterm	1 x 15%	= 15%	(Tues Oct 21 <sup>th</sup> in class)
[F]	Final Exam	1 x 35%	= 30%	(Wed Dec 14 <sup>th</sup> at 2:30 pm)

### Late Policy:

Assignments:

- There is a 1% per every 4 hours late penalty up to three days (72 hours) after the due date and time, after which the assignment will be given a grade of 0

Missed Midterm:

- If you miss the midterm it will be counted as 0
- However, the missed midterm can be challenged by writing it on a date arranged with the instructor
  - The midterm then is graded as pass/fail
  - If you pass the pass/fail midterm  
the mark allocation for the midterm will be allocated to the final
  - The grade obtained for the pass/fail midterm will not be included in your average

## Timetable:

	<b>Classes</b>		<b>Assignments</b>	<b>Tests</b>
	<i>Tues</i>	<i>Thur</i>	[ <i>Due Fri</i> ]	
		07-Sep-17		
W1	12-Sep-17	14-Sep-17		
W2	19-Sep-17	21-Sep-17	A1a: R [ <i>Due Tues</i> ]	
W3	26-Sep-17	28-Sep-17	A1b: Basic Simulations	
W4	03-Oct-17	05-Oct-17		
W5	No Class	12-Oct-17	S1: Discr Event Sims P1	
W6	17-Oct-17	19-Oct-17		
W7	24-Oct-17	26-Oct-17	A2: Input Modeling	MT [Tues Oct 24]
W8	31-Oct-17	02-Nov-17		
W9	07-Nov-17	09-Nov-17	S2: Stats Analysis	
W10	14-Nov-17	16-Nov-17	A3: Discr Event Sims P2	
W11	21-Nov-17	23-Nov-17		
W12	28-Nov-17	30-Nov-17	A4: RNGs & RVGs	
				F [Wed Dec 13]

## Errata:

### When You Cannot Meet a Course Requirement

- When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course in writing, with your name, id#, and e-mail contact.
- See the undergraduate calendar for information on regulations and procedures for Academic Consideration:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

### Recording of Materials

- Presentations which are made in relation to course work—including lectures—cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a classmate or guest lecturer.

### Academic Misconduct

- The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.
- University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct.
- Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.
- The Academic Misconduct Policy is detailed in the undergraduate calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>