DEPARTMENT OF MATHEMATICS
THE UNIVERSITY OF WESTERN ONTARIO

Mathematics 2151A
Discrete Structures for Engineering

Sept.-Dec. 2016

INSTRUCTOR INFO:
Dr. Christin Bibby, cbibby2@uwo.ca, MC 119
Office Hours: Tu 1:00-2:00pm, W 1:30-3:00pm, or by appointment
  Use your UWO email address when sending an email to the instructor.

LECTURE INFO:
MW 12:30pm-1:30pm in SEB 2200
Tu 11:30am-12:30pm in SSC 2050

TEXTBOOK:
Discrete Mathematics with Graph Theory, 3rd ed., by E. Goodaire and M. Parmenter, ISBN 0-13-167995-3

ANTIREQUISITES:
Mathematics 2155F/G, the former Mathematics 2155A/B, the former Software Engineering 2251A/B

PREREQUISITIES:
Computer Science 1026A/B or Engineering Science 1036A/B

COREQUISITES:
Computer Science 1027A/B or 1037A/B

COURSE DESCRIPTION:
Logic, proofs, sets and relations, functions, integers, induction and recursion, counting, algorithms and complexity, graphs, and trees.
  See the suggested exercises for more information about what is covered.

Note: This course is offered only to software engineering students enrolled in the Faculty of Engineering.

COURSE WEB SITE:
All students are responsible to be aware of information, assignments, materials, and grades posted on the OWL course site: `https://owl.uwo.ca/portal`

WHAT IS EXPECTED OF THE STUDENT?
Students should attend all classes, make a serious effort to understand all course material, and do all the assigned work. The student must assume responsibility for any missed classes. It is up to the student to seek out help when needed. The student is responsible for being aware of all relevant information posted on the course website.
A fundamental component of this course is to **prove** mathematical theorems.

EVALUATION OF STUDENT PERFORMANCE:
  Final Exam: (50%) *cumulative, to be scheduled by the Registrar's Office*
  Two Midterm Exams: (20% each) 7-9pm on Thursday, Oct. 13 & Nov. 10
  Assignments: (5%) *information about assignments will be available on OWL*
  The remaining 5% will be assigned to whichever of the three exams is the student's best mark.

Notes: NO calculators or other electronic devices or any other aids are allowed on exams.
  See Absence/Missed work policy on next page.

SENATE POLICY ON PREREQUISITES:
Prerequisite checking is the student's responsibility. Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

STATEMENT ON ACADEMIC OFFENCES:
Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website:
http://www.uwo.ca/univsec/pdf/academic_policies/scholastic_discipline_undergrad.pdf

ABSENCE/MISSED WORK:
If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation *to your Dean's office* **as soon as possible** and contact *your instructor* **immediately**. It is the student's responsibility to make alternative arrangements with his or her instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information concerning UWO's Policy on Accommodation for Medical Illness please refer to this policy at:
http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf

A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found here:
https://studentservices.uwo.ca/secure/medical_document.pdf

A makeup will be held for the midterm and final exams. Only students with prior permission from their instructor will be allowed to write the makeup for a midterm. Only students with a Recommendation for Special Exam form from their Dean's Office will be allowed to write a makeup for the Final Exam. There will be *no* makeups for assignments. If a student is unable to write the makeup for the midterm or misses multiple assignments due to a documented prolonged or recurring absence or other legitimate conflict, the instructor may consider rescheduling or reweighting that component of the grade.

ACCESSIBILITY:
Please contact the instructor if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x82147 for any specific question regarding an accommodation.

SUPPPORT SERVICES:
(1) Office of the Registrar: http://www.registrar.uwo.ca
(2) Student Development Services: http://www.sdc.uwo.ca
(3) Learning Skills Services: http://www.sdc.uwo.ca/learning
(4) USC: http://westernusc.ca/services
(5) Academic Calendar: http://www.westerncalendar.uwo.ca
(6) ITS: http://www.uwo.ca/its/helpdesk
(7) Students who are in emotional/mental distress should refer to Mental Health@Western
http://www.health.uwo.ca/mental_health
for a complete list of options about how to obtain help.

SUGGESTED EXERCISES:

Section	Exercises	Section	Exercises
0.1	2,6-8	5.1	3,4,6,8,9
1.1	1,2,4,6,11	5.2	5-8,12-14,19,20
1.2	2,3,5,6,10	5.3	1-19odd
1.3	1,3-5	5.4	1,3,6-10
2.1	3-5,7,9,10,12,14	6.1	3-5,8-15,22
2.2	1,5,7-10,12,15,16,19,22,23,26-28,30	6.2	3,6,7,9,12,16,17,21,22,25
2.3	3-6,8-11	6.3	4-9,11,14,17,21
2.4	2,4-7,12,14,15,18	8.2	2,3,5,7,12-14,17,19-21,24
2.5	1-6	9.1	4-9
3.1	1,9,10,12,15,19,22,24,27,29	9.2	1,4,6,7,12,14-18,20,21,26-31
3.2	1,5,7,10-12,19,20,22-24	9.3	1,4,5,8,10
3.3	3,6,11-14,19,20	10.1	2-4,7,17,18,23-25
4.1	4,8,9,11	10.2	1,3-5,9,15,23,24
4.2	3-5,7,9,11-13,19,22,25,28	10.3	2,3,6-10,13
4.3	4,7,8,14,26,28	10.4	2-4,6-11
4.4	2-4,8,9,11,20	12.1	2-7,9-11,16,20,23
4.5	18,19,21	12.2	1-7
		12.3	1-5

Notes:

(1) Section and Problem numbers refer to the textbook.
(2) Any changes to this list will be announced on the course website.