

**Applied Mathematics 3817b Optimization**  
**Winter Term (Jan - Apr) 2012**

**Instructor:** Walid Mnif, MC 275D, wmnif [at] uwo.ca.

**Lectures:** M W F 9:30am - 10:30am in VAC 100.

**Textbook:** Frederick S Hillier, Gerald J Lieberman, "Introduction to Operations Research ", 9/e, 2010, ISBN: 0073376299.

**Course Website:** <http://webct.uwo.ca>

**Course Outline:**

- 1- Introduction to Operations Research Modeling: Ch1. and Ch2.
- 2- Linear Programming: Ch3.
- 3- The Simplex Method: Ch4. and Ch5.
- 4- Duality Theory and Sensitivity Analysis: Ch6.
- 5- Network Optimization Models: Ch9.
- 6- Nonlinear Programming: Ch12.

**Teaching Assistant:** TBA.

**Office Hours:** Monday and Friday, 1:00-2:00 PM; or by appointment.

**Grading Scheme:**

- Attendance and Participation: 10%. Students are expected to demonstrate excellent preparation (e.g. analyze cases related to readings and course material) and contribute in a significant way to class discussions.
- Weekly Quiz on Friday's lectures: 10%.
- 4 Assignments: 15%.
- Midterm Exam: 25%. It will be on Wednesday, February 29, 7-9 PM, room TBA.
- Final Exam: 40%. TBA.

**Accessibility Statement:**

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 6612111 x 82147 for any specific question regarding an accommodation.

**Addendum to all Applied Mathematics Course Outlines:**

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 faculty's Deans Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their 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 your faculty's Dean's Office immediately. For further information please see:

<http://www.uwo.ca/univsec/handbook/appeals/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 Records 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](https://studentservices.uwo.ca/secure/medical_document.pdf)

**Plagiarism and Scholastic Offences:**

Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage of text from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar).

Plagiarism Checking: The University of Western Ontario uses software for plagiarism checking. Students may be required to submit their written work in electronic form for plagiarism checking.

For additional information, please consult:

[http://www.uwo.ca/univsec/handbook/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf)

<http://www.uwo.ca/ombuds/student/cheating.html>