BUS 270-070: Introduction to Quantitative Analysis
Monday & Wednesday 3:30-6:15 pm

Instructor: Islam Saleh

Contact Method: UR Courses email is preferred, or you can contact me @ Islam.Saleh@uregina.ca

Office Hours: Monday and Wednesday 2:00-3:00 pm or by appointment
Office is located at ED 524.5 (Sessional Office)

Classroom: ED 619 and computer Lab when required, students will be notified in advance

Text Book: Introduction to Management Sciences
Quantitative Approach to Decision Making
Custom Edition
ISBN-10: 0-17-666695-8

Course Summary: The course will introduce the students to some of management sciences techniques that help in taking decisions at the managerial level. Topics of linear programming, allocation of resources and inventory models will be discussed through this course

Course Objectives:
- Develop linear programming models and provide their graphical and computer solutions to support decision-making process
- Use of the linear programming techniques at different applications: marketing, financing and operations management
- Understand and model the transportation network flow problems and find the optimum shortest route
- Understand and develop the integer linear programming model and be able to find the optimal integer solution
- Understand and analyze the inventory models with deterministic or probabilistic demand to design a cost-optimized inventory system
- Use decision analysis strategy to find optimal decision alternatives when facing uncertain future
Prerequisites: BUS 100 (or ADMN 100), MATH 103 and STAT100

Computer Skills: Microsoft Excel solver add-in will be used in this course to solve linear programming problems. There will be one computer session to teach students how to use the solver, however, students are expected to be familiar with Microsoft Excel and know how to open a file and write formulas in Excel

Communication: Students need to visit the course page on UR Courses regularly as the course announcements, slides, material, and assignments will be posted there

Attendance: Attending all class is highly recommended, I point out the important material and expected exams format and problems during class time. Missing many classes usually causes poor course grades

Classroom Rules:
• Please be punctual and arrive class at time and don’t leave before the class ends
• Bring textbook, pens, pencils, graph papers and a basic scientific calculator with you for every class as you are required to finish in-class exercises by the end of the class
• The electronic devices including laptops and cell phones are source of distraction and the usage of them is prohibited during the class time

Evaluation Summary:

<table>
<thead>
<tr>
<th>Type</th>
<th>Date</th>
<th>Duration</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Due on July 23, 2018</td>
<td>1 week</td>
<td>5%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>July 25, 2018</td>
<td>150 min</td>
<td>30%</td>
</tr>
<tr>
<td>Assignment #2</td>
<td>Due on August 15, 2018</td>
<td>1 week</td>
<td>5%</td>
</tr>
<tr>
<td>In-class Exercises</td>
<td>Any date</td>
<td></td>
<td>10%</td>
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<tr>
<td>Final Exam</td>
<td>Apr 18, 2018</td>
<td>180 min</td>
<td>50%</td>
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<tr>
<td>Total</td>
<td></td>
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<td>100%</td>
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Exams Rules:

- Midterm and final exams will be held at room ED 619
- Midterm exams will start at 3:30 pm, please arrive 5 minutes ahead
- In case a student misses the midterm exam because of a recognized emergency (proof documentation is required), the weight of the midterm will be added to the final exam.
- The midterm exams will cover the material taught up to date. The final exam will cover everything discussed during the term.
- Midterm and final exams are closed book exams and only simple scientific calculator is allowed.
- Bring your student ID with you to all exams.

In-class Exercises:

10% of the course evaluation will be assigned for answering questions and completing simple tasks during class time. After teaching class material and solving examples student will be asked to solve problems and that can happen in any class and at any time without prior notice. Student should come always prepared. There will be no make up for missed in-class exercises.

Assignments:

- Assignments will be posted on UR Courses and each student is expected to submit them back within the assigned due date.
- All assignments should be submitted with an attached cover page, a template cover page will be posted on UR Courses.
- Assignments problems are preparations and practice for midterm and final exams. There is a big chance to have similar questions in these exams.

Students with Special Needs:

If you need any special accommodation or exams, please let me know after the first class. You also need to contact the Coordinator of Special Needs Services at (306) 585-4631.

Academic Integrity:

All work submitted by each student is expected to be the student sole work. Cheating and plagiarism will not be tolerated at any time. Any suspected cases will be reported to the undergraduate associate dean for further investigation.
**Tentative Course Outline:**
Notice that topic coverage may be adjusted from time to time as the course progresses

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>July 09</td>
<td>Introduction</td>
<td>Ch1, Lecture notes</td>
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</tr>
<tr>
<td>2</td>
<td>July 11</td>
<td>An Introduction to Linear Programming</td>
<td>Ch2, Lecture notes</td>
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<tr>
<td>3</td>
<td>July 16</td>
<td>An Introduction to Linear Programming</td>
<td>Ch2, Lecture notes</td>
<td></td>
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<tr>
<td>4</td>
<td>July 18</td>
<td>Linear Programming Sensitivity Analysis</td>
<td>Ch3, Lecture notes</td>
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<td>5</td>
<td>July 23</td>
<td>Computer Lab</td>
<td>Computer Lab notes</td>
<td>Assignment 1 due</td>
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<td>6</td>
<td>July 25</td>
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<td></td>
<td>Midterm Exam: Room ED 619, 3:30-6:00PM</td>
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<tr>
<td>7</td>
<td>July 30</td>
<td>Linear Programming Applications</td>
<td>Ch4, Lecture notes</td>
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<td>8</td>
<td>August 1</td>
<td>Distribution and Network Models</td>
<td>Ch6, Lecture notes</td>
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<td>9</td>
<td>August 8</td>
<td>Integer Linear Programming</td>
<td>Ch7, Lecture notes</td>
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<td>10</td>
<td>August 13</td>
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<td>Ch10, Lecture notes</td>
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<td>11</td>
<td>August 15</td>
<td>Inventory Models</td>
<td>Ch10, Lecture notes</td>
<td>Assignment 2 due</td>
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<td>Decision Analysis</td>
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<td>12</td>
<td>August 20</td>
<td>Decision Analysis</td>
<td>Ch13, Lecture notes</td>
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<td>13</td>
<td>August 28</td>
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<td>Final Exam: Room ED 619, 2:00-5:00 PM</td>
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Feeling Stressed? Always worried?

Some stress is normal when you’re going to university but 1 in 5 students will suffer from enough distress that they would benefit from counselling.

What can I do?

The U of R offers several counselling services free of charge for students at the U of R. These sessions are confidential and easy to access for students – simply go to the second floor of Riddell, Room 251 to make an appointment.

When should you go?

Knowing when to schedule an appointment can be tough. Some common issues you might need help with include test anxiety, if you’ve experienced a trauma like losing a family member or a close friend, or if you’ve recently ended a relationship.

If the feelings you’re experiencing are more intense and severe counselling services can also provide urgent service within 3 days and referrals as needed.

What options are available for me?

Personal Counselling – This is a great option if you’d like one on one attention for things like anxiety and panic, relationship conflict, depression, grief and loss, academic issues, body image and substance abuse.

Up to 5 sessions are free per semester. Try it – talking about your problems can be more helpful than you might think!

Group Counselling – Simply put, you’re not alone. Many students are experiencing the same things as you. The U of R offers a wide variety of group counselling opportunities that can help teach many skills for managing your mental health, including: Meditation and relaxation, Healthy relationships, Stress Management and Self-Care.

But I can’t afford counselling...

Seeking counselling doesn’t have to be cost prohibitive. Many students can benefit from the 5 free sessions offered by the University as a benefit of being a student.

If you need more sessions make sure you contact URSU and visit www.iHaveAPlan.ca. Many expenses that are related to mental health, including going to a psychologist, are partially covered by your Student Health and Dental Plan!

What else can I do?

Self-care - taking better care of yourself, can help you out. Eating better, working out, smoking and drinking less and balancing school with fun can all help with mental health!

Have a problem but don’t know how to fix it?

URSU’s Student Advocate can help you free of charge!

- Academic Appeals
- Disciplinary Appeals
- Student Loan Appeals
- E-mail advocate@ursu.ca to schedule an appointment today!

- Emergency Bursaries
- Notary Public
- Rentalsman Appeals