Carleton University

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

ECOR3800C - Engineering Economics

COURSE (LEARNING) OBJECTIVES

Learning Objectives

1. To introduce the concepts and methods of engineering economics and project management.

2. To develop the required skills in economic analysis to make sound economic and financial decisions.

3. To improve the efficient use of available resources in engineering projects.

Learning Outcomes

1. Both concepts and methods of valuation of resources (human resources, machinery, materials and money),

2. Essential elements of the procedures used in economic analysis and project management.

Graduate Attributes (GAs)

1. Engineering economics

2. Project definition and management techniques

3. Risk and change management

4. Professional, accountable, and ethical conduct

January 2019
<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPIC</th>
<th>KNOWLEDGE SOURCES:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Course notes, green board solutions/explanations, and textbook chapters.</td>
</tr>
<tr>
<td>1</td>
<td>Introduction to Engineering Economics and Project Management: Resources and the role of the engineer. Fundamental economic and problem-solving concepts. Engineering economic decisions.</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>7</td>
<td>Replacement Decisions: Reasons for replacement or retirement. Capital costs and other costs. Defender and challenger are identical. Challenger is different from defender.</td>
<td>Chapter 7</td>
</tr>
</tbody>
</table>
REQUIRED TEXT:

WORK LOAD & MARKING SCHEME:
- Four Assignments (Each with 5 questions & parts) 20%
  [NOTE: Due to time constraints, no project can be assigned.]
- Term Tests 1 & 2 30%
- Final Examination 50% (must pass Final Exam.)

COURSE INSTRUCTOR:
Professor A.M. Khan
Room 3044 Minto Centre
Tele: 520 2600 (EXT 5786)
Email: ata.khan@carleton.ca

Instructor Office Hours
Tuesdays and Thursdays 9:30-11:30 a.m.

TEACHING ASSISTANTS
LeMy Dinh
Osato Asemota

TA Office Hours and Location
(Posted – see power point slide)

LECTURES
Tuesdays and Thursdays 2:35-3:55 p.m.

ANNOUNCEMENTS

1. Academic Accommodations
Requests for Academic Accommodation
You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:
Pregnancy obligation
Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation
Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities
If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. carleton.ca/pmc

Survivors of Sexual Violence
As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities
Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline

2. Marked Final Examination Papers
Marked final examinations will not be returned.
3. **Programmable Calculators** are not allowed in Term Tests and in the Final Examination.

4. **Term Test 1**: Tuesday, February 12, 2019, 2:35 – 3:55 p.m.  
   **Term Test 2**: Thursday, March 21, 2019, 2:35-3:55 p.m.

5. **Winter Break**: February 18-22, 2019

January 2019