MENG293-PROJECT MANAGEMENT & SOCIAL RESPONSIBILITY

CAMOSUN COLLEGE Department of MECHANICAL ENGINEERING Technology

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# COURSE DESCRIPTION

Through case studies and research assignments, this course will challenge the student with various ethical dilemmas they may encounter as an Engineering Licensee. With the aid of project management techniques and tools, students will plan a major project in preparation of their final capstone project. Emphasis will focus on such topics as: sustainable development, professional ethics, and the potential impact of technology on society, workplace safety and equality, professional responsibility and accountability.

### INTENDED LEARNING OUTCOMES

Upon successful completion of this course a student will be able to:

- Plan successful engineering projects.
- Estimate costs of feasibility studies and engineering proposals.
- Apply project management processes to:
  - Integrate project tasks
  - Schedule project tasks and resources
  - Minimize project risk
  - Optimize project costs
- Describe and defend Organizational Quality Management.
- Describe and defend the technologist's and engineer's role in society with regards to:
  - Public and workplace safety
  - o Social diversity
  - Gender diversity
  - Environmental sustainability
  - Continuous professional development
  - Code of Ethics of accrediting organization

## COURSE CONTENT

All content is available online in D2L.

## EVALUATION

5%
5%
5%
0%
0%
5%

### **G**RADING **S**YSTEM

Percentage	Grade
90-100	A+
85-89	А
80-84	A-
77-79	B+
73-76	В
70-72	B-
65-69	C+
60-64	С
50-59	D
0-49	F

### **REQUIRED MATERIALS**

The Engineering Design Process: An introduction for mechanical engineers. (2010)

- P. Ostafichuk, A. Hodgson, M Fengler

## COURSE SCHEDULE 2019

Wk	Date (Monday)	Торіс	Content	Activity
1	Sep 2	*Labour Day Monday Module 1: Engineering design and project management.	<ul> <li>Team Formation</li> <li>Project Management</li> <li>[www.ganttology.com]</li> <li>Generating ideas</li> <li>The role of reflection</li> </ul>	Team Formation & Team Activities (Charter, assessment, project ideas, name)
2	Sep 9	CHAPTERS 1,4,5	<ul><li>RAP* Quiz 1</li><li>Engineering and society</li><li>Designing for</li></ul>	professionalism, team dynamics, topic selection
3	Sep 16	*Fee Deadline Sep.18	<ul> <li>Designing for society</li> <li>Organizational Quality</li> <li>Management</li> </ul>	DEBATE Professionalism & Regulation
4	Sep 23	Guest Lecture TBD	<ul> <li>Documentation &amp; design</li> <li>Social responsibility</li> </ul>	Team Project Planning & Design PRESENTATIONS 1: Project Planning
5	Sep 30	Module 2: The Design Cycle	RAP Quiz 2 • Conceptualization & prototyping	Self-Directed: Team Project Planning & Design
6	Oct 7	CHAPTERS 2,3,7 Guest Lecture TBD	Evaluation & Iteration	DEBATE Whistle-Blowing PRESENTATIONS 2: Social Responsibility
7	Oct 14	*Thanksgiving Monday	Optimization	Self-Directed: Team Project Planning & Design
8	Oct 21	Module 3: Triple bottom line	RAP Quiz 3 • Needs & Specifications	DEBATE Diversity, Equity & Inclusio Team Assessments
9	Oct 28	CHAPTERS 10,13,14	<ul> <li>Communicating design</li> <li>Presentation augmentation</li> </ul>	<u>DEBATE</u> Sustainability
10	Nov 4	Module 4: Broad Context of Design * Academic deadline Nov.6	RAP Quiz 4 • Social contexts	Team Meetings: Project Planning & Design <u>PRESENTATIONS 3</u> : Project Progress, draft report/1-pg
11	Nov 11	*Remembrance Day Closure – Nov.11	<ul><li>Sustainable design</li><li>Mitigating failure</li></ul>	DEBATE Unintended Consequences
12	Nov 18	CHAPTERS 18,20,23	<ul> <li>Patents</li> <li>Intellectual property and the ethics of open source</li> </ul>	Team Project Planning & Design
13	Nov 25	Guest Lecture TBD	MAJOR DEBATES Topic of Choice	Team Meetings: Project Planning & Design
14	Dec 2	Final Presentations	PRESENTATION Pizza Party	Individual reflections, Tear assessments

Note: Schedule subject to modification

\* RAP quizzes are online D2L quizzes. Each quiz (except #1) is due by midnight prior to the module start.

# MENG293- PROJECT MANAGEMENT & SOCIAL RESPONSIBILITY

### COLLEGE SUPPORTS, SERVICES AND POLICIES



#### IMMEDIATE, URGENT, OR EMERGENCY SUPPORT

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ http://camosun.ca/about/mental-health/emergency.html or http://camosun.ca/services/sexual-violence/get-support.html#urgent

#### COLLEGE SERVICES

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <a href="http://camosun.ca/">http://camosun.ca/</a>

#### **COLLEGE POLICIES**

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <a href="http://camosun.ca/about/policies/">http://camosun.ca/about/policies/</a>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary

Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

#### **GRADING SYSTEMS** <u>HTTP://CAMOSUN.CA/ABOUT/POLICIES/INDEX.HTML</u>

The following two grading systems are used at Camosun College:

Percentage	Grade	Description	Grade Point
			Equivalency
90-100	A+		9
85-89	А		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

#### 1. STANDARD GRADING SYSTEM (GPA)

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### 2. COMPETENCY BASED GRADING SYSTEM (NON GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
СОМ	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

#### **TEMPORARY GRADES**

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at

<u>http://camosun.ca/about/policies/index.html</u> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary	Description
Grade	
1	Incomplete: A temporary grade assigned when the requirements of a course
	have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	In progress: A temporary grade assigned for courses that are designed to
	have an anticipated enrollment that extends beyond one term. No more
	than two IP grades will be assigned for the same course.
CW	Compulsory Withdrawal: A temporary grade assigned by a Dean when an
	instructor, after documenting the prescriptive strategies applied and
	consulting with peers, deems that a student is unsafe to self or others and
	must be removed from the lab, practicum, worksite, or field placement.