Université d'Ottawa
Faculté de génie

Département de
génie mécanique

uOttawa

University of Ottawa
Faculty of Engineering

Department of
Mechanical Engineering

MCG4340 - Syllabus

Winter 2011

Teaching staff

Instructors:

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Teaching Assistants:

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Schedule and Locations

Seminar: Monday, 13:00 - 14:30, VNR 5070

Lecture: Wednesday, 11:30 -12:30, MRT 205

Laboratory: Tuesday, 10:00 - 14:00, CBY (see table below)

Final Exam: Wednesday, April 20, 19:00-22:00, SITE B0138

The oral presentation (see Course outline and Organization) will be given during the Lecture sessions. For details see the timetables below.

Emergency Information

The University emergency number is 562-5411 (or extension 5411 within the University). Do not call 911 for emergencies within the university.

The nearest first aid kits are:

for B206: in the MCG secretariat on the second floor

for D-05, D-06, and E-012: in the MCG workshop E-012

Safety Rules

- Know the location of the nearest exit, fire alarm, and extinguisher.
- If it does not belong to you, don't touch it!
- Any accident must be reported immediately to the teaching assistant or to Dr. D. Spinello (course coordinator).

Course Outline and Organization

This course consists of nine laboratory experiments covering a number of different areas of mechanical engineering. Because of the interdisciplinary nature of the course, it is being "team taught", with three different professors responsible for experiments in (or close to) their areas of expertise. Following is a list of the experiments with the professors and teaching assistants responsible for each:

Experiment	Room	Instructor	TA
1. Sound	CBY B206	D. Spinello	A. Ketabchi
2. Dynamic Balancing	CBY B206	D. Spinello	A. Ketabchi
3. Pumps	CBY B206	M. Radulescu	M. Qadir
4. Francis Turbine	CBY D06	M. Radulescu	M. Qadir
5. Velocity Traverse	CBY D06	D. Spinello	A. Behnamian
6. Design and Testing of a Strain-gauged Transducer	CBY B206	A. Weck	P. Girault; H. Rastan
7. Boiling and Condensation	CBY B206	M. Radulescu	A. Behnamian
8. Design and Testing of a Structural Sandwich	CBY B206	A. Weck	P. Girault; H. Rastan
9. Welding and Nondestructive Testing	CBY E012	A. Weck	G. Choueiri

Grading Scheme

The mark of the course will be determined by the following contributions with corresponding weights:

Seminars	5%
Laboratory log book	20%
Formal lab report (1)	20%
Oral presentation (1)	20%
Final exam	35%

Note that **the formal lab report is individual**, that is, every student is responsible for the submission of one report. The due date is given in the Lab schedule below. For details on the lab report, the log book, and the oral presentation see the dedicated documents available on Virtual Campus.

Policy

Each student has to attend all oral presentations, laboratories, and seminars. If a student cannot attend due to a medical condition, certified by a doctor, he/she must notify the instructor in advance. Unexcused absence will result in the failure of the course.

You are responsible of signing the attendance sheets that will circulate during presentations, seminars and laboratories. No signature will be considered as absence.

Nine groups with approximately the same number of students are formed by randomly associating the names of the registered students with labels 1 to 9. The topic of the oral presentations and of the formal lab reports will be automatically determined by the number of the Group to which each student belongs, as the topic will be associated with the Lab with the same number of the Group.

Labs schedule

Labs are located in CBY building (for specific rooms see the table above) on Tue 10:00 - 14:00. In the following timetable "gr" is the abbreviation of "group".

	Lab 1	**Lab 2**	**Lab 3**	**Lab 4**	**Lab 5**	**Lab 6**	**Lab 7**	**Lab 8**	**Lab 9**
Jan 11	No Labs								
Jan 18	gr 1	gr 2	gr 3	gr 4	gr 5	gr 6	gr 7	gr 8	gr 9
Jan 25	gr 9	gr 1	gr 2	gr 3	gr 4	gr 5	gr 6	gr 7	gr 8
Feb 1	gr 8	gr 9	gr 1	gr 2	gr 3	gr 4	gr 5	gr 6	gr 7
Feb 8	gr 7	gr 8	gr 9	gr 1	gr 2	gr 3	gr 4	gr 5	gr 6
Feb 15	gr 6	gr 7	gr 8	gr 9	gr 1	gr 2	gr 3	gr 4	gr 5
Feb 22	No Labs (study week)								
Mar 1	gr 5	gr 6	gr 7	gr 8	gr 9	gr 1	gr 2	gr 3	gr 4
Mar 8	gr 4	gr 5	gr 6	gr 7	gr 8	gr 9	gr 1	gr 2	gr 3
Mar 15	gr 3	gr 4	gr 5	gr 6	gr 7	gr 8	gr 9	gr 1	gr 2
Mar 22	gr 2	gr 3	gr 4	gr 5	gr 6	gr 7	gr 8	gr 9	gr 1
Mar 29	Make up session								
Apr 8 @ 4:30pm	Formal lab report is due (dropbox in front of Mechanical Engineering Department, CBY 2nd floor)								

Lectures schedule

Lectures will be given in MRT 205 on Wed 11:30 -12:30. The first three lectures will be on general topics related to Laboratory Safety and Data Presentation. The remaining Lectures will host individual oral presentations from the students.

Date	**Topic**
Jan 5	Organization meeting
Jan 12	How to give a oral presentation (Speaker: William Hallet)
Jan 19	Report writing and data presentation (Speaker: William Hallet)
Jan 26	Role and responsibilities in the workspace (Speaker: Paul Fortin)
Feb 2	Oral presentation: Group 1 on Lab 1
Feb 9	Oral presentation: Group 2 on Lab 2
Feb 16	Oral presentation: Group 3 on Lab 3
Feb 23	No lecture (study week)
Mar 2	Oral presentation: Group 4 on Lab 4
Mar 9	Oral presentation: Group 5 on Lab 5
Mar 16	Oral presentation: Group 6 on Lab 6
Mar 23	Oral presentation: Group 7 on Lab 7
Mar 30	Oral presentation: Group 8 on Lab 8
Apr 6	Oral presentation: Group 9 on Lab 9