

PHIL 315/GENE 412: Ethics and the Engineering Profession

Section 001

Winter 2012

RCH 204, M 7:00-9:50

Instructor Information:

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Office Hours: Wednesdays 1:00-2:30 or by appointment.

Teaching Assistant: James Tigwell

1. Course Description: The engineering profession in Canada is largely "self-regulating" in the sense that the task of defining and enforcing appropriate standards of practice falls largely to the practitioners themselves (i.e., as licensed members of legally founded professional associations). A key ingredient of profession's self-regulation is the enforcement of ethical standards, via explicit ethical codes, on the practices of licensed engineers. Though the good sense of having such codes is obvious, what is less obvious is the ethical thought that goes into the grounding and justification of a code's contents, and into the interpretation of the code's application to specific issues and problems. This course provides an analysis of a variety of ethical issues arising in the engineering profession from the standpoint of this larger philosophical/ethical perspective. Without in any way diminishing the importance of the professional ethics code, which will figure prominently in this course's development, we proceed on the assumption that the professional engineer's ethical responsibilities are best served when approached through a general understanding of ethics and its requirements. The following are among the themes and issues we will consider as the course progresses:

General issues: The nature of ethics (i.e. ethical theory); the application of ethical theories; the social responsibilities of engineers; codes of ethics and their interpretation.

Ethics in practice: Regulation and discipline within the profession; corporate responsibility and issues of loyalty and "whistle-blowing"; quality/safety and liability; equity in the workplace; intellectual property; conflict of interest; environmental issues; ethics in private practice.

2. Materials The main text for this course is G.C. Andrews, *Canadian Professional Engineering and Geoscience: Practice and Ethics*. Fourth Edition, Nelson Education Ltd., 2009. Additional readings will be assigned from the appendices to this book which are available online (at no additional cost) at <<http://www.andrews4e.nelson.com>>

3. Method: This course is based on assigned readings and classroom lectures geared toward the analysis, and critical assessment of those readings. It is important that

students give their attention *both* to the readings *and* to the lectures. Though classroom sessions will generally have a lecture format, there will be a strong emphasis on discussion and informal debate as the sessions proceed. At the discretion of the instructor, some classroom time may also be devoted to audio-visual materials (e.g. films).

4. Assessment: Assessment in the course will be based on the following 3 components:

- A Short Written Assignment (3 double-spaced pages) worth 20% of the final grade
- A Term Essay (6-8 double-spaced pages) worth 40% of the final grade
- Final exam (during exam period, TBA) worth 40% of the final grade

Please note that all suspected cases of plagiarism and/or other forms of academic dishonesty will be referred to the Associate Dean of the Faculty of Arts. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

5. Expectations

Regular attendance in class sessions is mandatory. It is expected that students will have read the assigned readings in advance of each class session. Though not mandatory, it is highly recommended that students participate in classroom discussion/debate.

6. Policy for Late Work

In order to be considered on time, written assignments (including the term essay) must be submitted *in class* (in hardcopy) on the relevant due date. Any work not received in class on the due date will be considered late. Late assignments will be penalized at the rate of 5% per weekday late (i.e. weekends don't count), to a maximum of 50%. Late assignments must be submitted *both* in hardcopy to the Philosophy Department dropbox (3rd floor Hagey Hall) *and* by email attachment to the instructor in order accurately verify the date of completion.

7. Course Schedule

Note: This schedule is tentative and subject to revision as the course progresses.

Week 1 (Jan. 9)

- Introduction and Administration
- The Nature of Ethics
- READING: none

Week 2 (Jan. 16)

- Ethical and Theories and Concepts
- READING: Chapters 1 and 11

Week 3 (Jan. 23)

- Ethical Theory (cont'd) and Applications: Dealing with cases
- READING: Chapters 2 and 18

Week 4 (Jan. 30)

--Ethics codes and Discipline within the Profession

READING:

-Selections (TBA) from Appendix B (online at <http://www.andrews4e.nelson.com>)

-Chapter 4

***** Questions/Topics for Short Written Assignment Distributed*****

Week 5 (Feb. 6)

--Corporate Responsibility, Loyalty and Whistle-Blowing

READING: Chapters 12 and 15

Week 6 (Feb. 13)

--Quality/Safety and Liability

READING : Chapter 8

*****Short Written Assignment Due In Class*****

(Reading Week Feb. 20 - Feb. 24)

Week 7 (Feb. 27)

--Environmental Issues

READINGS: Chapters 16-17

Week 8 (March 5)

--Conflicts of Interests (Employment and Management Contexts)

READING: Chapters 12 and 13

*****Term Essay Topic Distributed*****

Week 9 (March 12)

--Intellectual Property Issues: Patents and Trade Secrets

READING: Chapter 9

Week 10 (March 19)

--Equity in the Workplace

READING: Chapter 10

Week 11 (March 26)

--Engineering Ethics in Private Practice:

READING: Chapter 14

*****Term Essay Due In Class*****

Week 12 (April 2)

--Catch-up and loose ends

NO READING

8. University Policies:

Cross-listed course:

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

Academic Integrity:

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, <http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>

Academic Integrity website (Arts):

http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html

Academic Integrity Office (University): <http://uwaterloo.ca/academicintegrity/>

Accommodation for Students with Disabilities:

Note for students with disabilities: The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities

without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.