# LANG 2030/H Technical Communication (I)

## Course Description and Syllabus

### 1. Course Information

Technical Communication 1 is a three-credit course offered to students from the School of Engineering. Over one semester, students will attend three hours of class, and will be expected to complete up to six hours of out-of-class work, per week. The course focuses on three areas:

**Engineers and identity**: In this short introductory section, students will examine what characteristics make engineers different from other professionals and analyze the language that is typically used in engineering texts.

**Engineers and social responsibility**: Students will analyze and discuss some of the major ethical issues that engineers face in their work, with reference to real-world cases. They will work in a group to prepare and deliver a presentation and lead a seminar discussion on an engineering ethics issue. They will also write a short analytical report.

**Engineers and creativity**: Students will discuss and evaluate engineering innovations and will work in a group to devise an innovative engineering idea. They will present the innovation to their classmates and submit an individual proposal report.

The course aims to develop students' ability to deliver presentations and take part in discussions on topics relevant to the work of a professional engineer. It also aims to enhance their ability to write about engineering-related topics, combining the use of sources with their own ideas. Language work focuses on developing the vocabulary, language structures, writing and speaking skills which will allow students to fulfill these aims.

### 2. Pre-requisites

Students who have completed LANG 1003 can enrol for LANG 2030 (the regular stream).

Students with credit transfer from LANG 1002 and LANG 1003 and an IELTS score of 7, with no sub-score less than 6.5, or an equivalent qualification OR an A+ grade in LANG 1003 are enrolled in LANG 2030H.

## 3. Aims of the course: Intended Learning Outcomes

| **Graduate attributes** | **Intended learning outcomes** |
|---|---|
| **1. Competency-building** | You can communicate effectively in academic contexts relevant to engineering. You can:<br>a) identify and address the needs and concerns of a non-technical audience in speaking and writing<br>b) use accurate and fluent language (vocabulary, structures and style) relevant to engineering-related communication tasks<br>c) critically analyze semi-technical engineering texts<br>d) select, summarize and synthesize information from semi-technical and general-interest written and spoken engineering-related materials<br>e) recognize and use an effective tone in writing and speaking and avoid biases and unsupported assumptions<br>f) support claims with appropriate evidence, and properly acknowledge sources |
| **2. Leadership & Teamwork** | You can:<br>a) work effectively in a team<br>b) communicate productively with others in face-to-face discussions |
| **3. Ethical Standards** | You can:<br>a) demonstrate academic integrity in course assignments<br>b) evaluate the benefits and dangers of engineering technologies for society<br>c) recognize the major ethical issues and career pressures faced by engineers |

## 4. Course assessment

**LANG 2030 Regular Stream**

| | | |
|---|---|---|
| A group presentation and seminar discussion on an engineering ethics issue (group and individual) | 20% | 1. b, c, d, f<br>2. a, b<br>3. a, b, c |
| An analytical report on an engineering ethics issue (individual) | 20% | 1. b, c, d, f<br>2. a, b<br>3. a, b, c |
| A group presentation of a proposal for an engineering innovation (group and individual) | 20% | 1. a, b, e, f<br>2. a, b<br>3. a |
| A proposal report for an engineering innovation (individual) | 25% | 1. a, b, e, f<br>2. a, b<br>3. a |
| Vocabulary: Completion of 10 vocabulary practice tests on VOLT-2030 | 5% | 1. b |
| Group work: Contribution to group work for Part 1 and 2 assessed tasks | 5% | 2. a, b |
| Completion of out-of-class practice tasks | 5% | 1. b, e, f |

**LANG 2030 H Stream**

| | | |
|---|---|---|
| A group presentation and seminar discussion on an engineering ethics issue (group and individual) | 20% | 1. b, c, d, f<br>2. a, b<br>3. a, b, c |
| An analytical report on an engineering ethics issue (individual) | 25% | 1. b, c, d, f<br>2. a, b<br>3. a, b, c |

| | | |
|---|---|---|
| A group presentation of a proposal for an engineering innovation (group and individual) | 20% | 1. a, b, e, f<br>2. a, b<br>3. a |
| A proposal report for an engineering innovation (individual) | 25% | 1. a, b, e, f<br>2. a, b<br>3. a |
| Group work: Contribution to group work for Part 1 and 2 assessed tasks | 5% | 2. a, b |
| Completion of out-of-class practice tasks | 5% | 1. b, e, f |

## 5. Course Content

**Introduction: Engineers and Identity**

- How engineers speak
- How engineers write

**Part 1 Engineers and Social Responsibility**

- What are engineering ethics?
- Analyzing ethical issues in engineering
- Analyzing an ethical case
- Identifying facts in an engineering disaster
- Analyzing an engineering disaster
- Expressing opinions and taking a position
- Finalizing your analytical report and citing sources
- Presenting ethical issues Taking part in seminar discussions

**Part 2 Engineers and Creativity**

- The creative engineer
- Introducing a creative project
- Reviewing literature and comparing technologies
- Giving a technical description
- Describing feasibility and benefits, concluding and putting together your proposal
- Presenting an innovation