RE0003 Communicating as a 21st Century Engineer

Study year	:	REP Year 2, Semester 1
Academic units	:	3 AUs
Pre-requisite	:	Nil
Tutorial hours	:	36 (weekly seminar of 3 hours)

CONTENT

This course aims to help students in the Renaissance Engineering Programme to become highly skilled communicators. Students will explore in depth how to use language appropriately and effectively, in varied academic and professional contexts, to achieve desired purposes with different audiences. While the course focuses on how to write and present dynamic technical proposals and reports, students will learn important general principles that they can apply to other forms of written and spoken communication. An important aspect of the course is that students will learn how to learn about effective communication on their own. This will involve them learning how to read, analyse and respond critically to a range of texts from engineering and other disciplines. The course also covers non-verbal aspects of communication, such as the use of graphics, as well as ethical dimensions of academic and professional communication.

LEARNING OUTCOMES

Upon successful completion of the course, students should be able to:

1. examine and discuss the academic, professional and social dynamics underlying engineering communication;
2. identify and use a range of linguistic and non-linguistic strategies to achieve communicative purposes in varied contexts;
3. produce effective technical proposals and reports, written and spoken, for academic and professional contexts;
4. evaluate ideas, arguments and credibility of academic and other sources through critical reading and thinking; and
5. develop and apply ethical principles in research and professional writing.

COURSE SCHEDULE

Week	Tutorial topics	Reading/Activities
1	Introduction: Role & importance of communication skills; the Social context of engineering communication	Lecture & Group discussions
2	Features of engineering communication; Reading and analysing engineering texts critically	Lecture, Group discussions, Text analysis (Group work)
3	Writing a project proposal	Lecture, Group discussions, Text analysis (Group Work), Group writing activities

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4	Finding & using Sources; Citation & academic integrity (Library week)	Lecture, Session with librarians
5	Writing a business or professional proposal	Lecture, Group discussions, Text analysis (Group work), Group writing activities
6	Writing test & project reports	Lecture, Group discussions, Text analysis (Group work), Group writing activities
7	Writing other workplace reports	Lecture, Group discussions, Text analysis (Group work), Group writing activities
8	Technical presentations (1): Planning & preparing; Using visuals and graphics	Lecture, Group discussions, Group work activities
9	Technical Presentations (2): Translating the written into the oral; Delivery	Lecture, Group discussions, Group work activities
10	Intercultural workplace communication: Fundamental knowledge, skills and attitudes	Lecture, Case studies, Role-plays, Group discussions
11	Student oral presentations (CA3)	Guest lecture on communication topic; Student oral presentations; Feedback
12	Student oral presentations (CA3)	Guest lecture on communication topic; Student oral presentations; Feedback
12	Features of engineering communication; Reading and analysing engineering texts critically	Lecture, Group discussions, Text analysis (Group work)

STUDENT ASSESSMENT

There is no end-of-semester examination for this course, students will be assessed by 100% continuous assessment based on the following components.

Assessment	**Weighting**
Written assignments Students will demonstrate their skills learned in this course through 2 written assignments; (1) analysis and critique and (2) written project proposal.	**60%**
Oral presentation Students will work in pairs to give an oral presentation to a professional (non-academic) audience.	**25%**
Class participation	**15%**

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TEXTBOOKS/REFERENCES

A specially-tailored course package will be developed for the students, including both print and online material.

Reference

A more complete list of reference material will be compiled. Two provisional references are:

1. Eng, CL; Heah, CLH; and Ong, K (2015). *Guide to Research Projects for Engineering Students: Planning, Writing and Presenting*. London: CRC Press
2. Irish, R. (2016). Writing in Engineering: a Brief Guide. London: Oxford