LANG4035 Technical Communication 2 for Chemical and Biological Engineering (CBE) students: Course Description and syllabus

LANG 4035 is a three-credit course offered to students in the Department of Chemical and Biological Engineering (CBE). 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 two areas:

Communication in CBE projects

Students will develop effective organizational strategies and enhance your ability to use appropriate language to write an academic project report. Course materials will focus on introducing a project, setting it in context, describing methods and discussing results. Students will learn how to write an Abstract, thank those who have helped with a project (Acknowledgements) and will consider the use of an appropriate citation style. They will also learn how to present information coherently and for maximum impact on the audience in a poster presentation on their project progress. Texts used in the course will be drawn from academic sources from fields relevant to Chemical Engineering (CENG), Chemical and Environmental Engineering (CEEV), Bioengineering (BIEN) and Sustainable Energy Engineering (SUSEE).

Communication in professional contexts

Students will enhance their understanding of how audience and purpose influence the content, organization and language style of technical writing and speaking in a professional context and they will develop their ability to write and speak about topics relevant to their major for a variety of audiences and purposes. Students will give a presentation in which they describe current trends in a relevant industry and will write a White Paper, focusing on the same industry.

Pre-requisites for LANG4035

LANG2030 or LANG2030(H)

Intended Learning Outcomes

Knowledge and Content Related:	1. You can identify and address the needs and concerns of a variety of academic and professional audiences in speaking and writing 2. You can support claims with appropriate evidence, and properly acknowledge sources

	3. You can critically analyze and discuss major issues and recent developments in your major and related professions
Academic Skills and Competencies:	4. You can recognize and use appropriate organizational structure, tone and formatting in written and spoken communication for different audiences and purposes 5. You can select, summarize and synthesize information from texts in your major subject 6. You can use accurate and fluent language (vocabulary, structures and style) relevant to engineering-related communication tasks
Ethical Standards:	7. You can demonstrate academic integrity in course assignments
Vision and Orientation to the Future:	8. You recognize the need to communicate courteously and appropriately in professional contexts

Assessment

Assessment	Weighting	ILOs
The introduction and literature review of the FYP report	25%	1, 2, 3, 4, 5, 6, 7
A poster presentation on the FYP	25%	1, 2, 3, 4, 5, 6, 7
A white paper	20%	1, 2, 3, 4, 5, 6, 7, 8
A presentation of an industry trend	20%	1, 2, 3, 4, 5, 6, 7, 8
Required classwork	10%	

Course Content

Part 1 Communication in CBE projects

- Introducing a CBE project
- Presenting an overview
- Reviewing the work of others
- Analyzing the market
- Designing a poster
- Describing experimental procedures
- Describing a process
- Resenting results and discussing implications
- Drawing conclusions and talking about the future
- Poster presentations

Part 2 Communication in professional contexts

- Talking about trends
- Reaching out to potential customers
- Strategies for white papers
- White papers and problem solving
- White papers and opportunities
- Pointing the way forward
- Presentation skills
- Workplace communication