

## 课程详述

### COURSE SPECIFICATION

以下课程信息可能根据实际授课需要或在课程检讨之后产生变动。如对课程有任何疑问，请联系授课教师。

The course information as follows may be subject to change, either during the session because of unforeseen circumstances, or following review of the course at the end of the session. Queries about the course should be directed to the course instructor.

1.	课程名称 <b>Course Title</b>	English for Professional Engineering Skills: Language in Project Design, Management and Communication				
2.	授课院系 <b>Originating Department</b>	Center for Language Education				
3.	课程编号 <b>Course Code</b>	CLE053				
4.	课程学分 <b>Credit Value</b>	2				
5.	课程类别 <b>Course Type</b>	通识选修课程 General Education (GE) Elective Courses				
6.	授课学期 <b>Semester</b>	秋季 Fall				
7.	授课语言 <b>Teaching Language</b>	英文 English				
8.	授课教师、所属学系、联系方式 (如属团队授课, 请列明其他授课教师) <b>Instructor(s), Affiliation &amp; Contact</b> (For team teaching, please list all instructors)	Instructor: Jennifer Hirst, Center for Language Education (Lead Instructor)  Invited speaker: Dongfang Ouyang, Department of Biomedical Engineering				
9.	实验员/助教、所属学系、联系方式 <b>Tutor/TA(s), Contact</b>	无 NA				
10.	选课人数限额(可不填) <b>Maximum Enrolment (Optional)</b>					
11.	授课方式 <b>Delivery Method</b>	讲授 <b>Lectures</b>	习题/辅导/讨论 <b>Tutorials</b>	实验/实习 <b>Lab/Practical</b>	其它(请具体注明) <b>Other (Please specify)</b>	总学时 <b>Total</b>
	学时数	32	0	0	0	32

**Credit Hours**

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<b>12.</b>	先修课程、其它学习要求 <b>Pre-requisites or Other Academic Requirements</b>	CLE030 EAP
<b>13.</b>	后续课程、其它学习规划 <b>Courses for which this course is a pre-requisite</b>	无 NA
<b>14.</b>	其它要求修读本课程的学系 <b>Cross-listing Dept.</b>	无 NA

**教学大纲及教学日历 SYLLABUS**

**15. 教学目标 Course Objectives**

The principle objective of the course is to facilitate student development of the communication and design skills necessary for effective participation in engineering projects in English. The course is also aimed at preparing students to consolidate their education and experience into outstanding job applications and interview performance in English.

**16. 预达学习成果 Learning Outcomes**

By the end of the course students will be able to:

- Use English to outline and provide effective rationale for a set of design principles and action
- Use communication skills effectively in international English for practical, professional, and collaborative contexts
- Use effective descriptive, evaluative, collaborative, persuasive and negotiating language (International English)
- Understand and communicate in English the rationale and criteria for an innovative and impactful project
- Present and promote themselves to future employers

**17. 课程内容及教学日历 (如授课语言以英文为主, 则课程内容介绍可以用英文; 如团队教学或模块教学, 教学日历须注明主讲人)**

**Course Contents (in Parts/Chapters/Sections/Weeks. Please notify name of instructor for course section(s), if this is a team teaching or module course.)**

Week	Learning content	Learning Objective
1	<p><b>Introduction/Overview of the course/Assessments &amp; Criteria</b></p> <p><b>Evaluation</b> of communication skills &gt; Setting personal goals&gt;study plan</p>	<p>Students will set up a clear study plan based on assessment criteria, deadlines and evaluation of skills in both content and language</p>
2	<p><b>Language in Research Methods and Skills Introduction:</b></p> <p>Literature Review. How to research; How, what and why to cite. How and why to use data as background (link to Sustainable Development Goals)</p> <p><b>Engineering Design Case Study I</b></p> <ul style="list-style-type: none"> <li>• Engineering Design factors</li> <li>• Quebec bridge</li> <li>• Zi Jin Bridge in Heyuan, Guangdong</li> </ul>	<p>Students will develop an understanding of the need for effective engineering design and the skills needed to undertake and present effective and appropriate research in English.</p>
3	<p><b>Language in Effective Project Presentation &amp; Project Management</b></p> <p>Building Claims into Arguments (using research and data) in English</p> <p>English Language skills for Global Engineering (professional, precise, unambiguous + quantitative)</p> <p><b>Intro to Project Management (PM) – PA</b></p> <ul style="list-style-type: none"> <li>• What is PM?</li> <li>• Why do we do it?</li> <li>• What is a project?</li> <li>• Project plans</li> </ul>	<p>Students will develop an understanding of the skills and language required to develop, present and manage an effective project in English.</p>
4	<p><b>Language in Ethical issues in Engineering</b></p> <p>Presenting and Developing Arguments in English</p> <p>Ethics Debate: Language &amp; Delivery skills</p> <p><b>Engineering Design Case Study II</b></p> <ul style="list-style-type: none"> <li>• Toyota Recall</li> <li>• Boeing 737Max crash accidents</li> </ul>	<p>Students will develop an understanding of the need for, and the language required, to consider and discuss ethical implications and negotiate in problem solving in English.</p>
5	<p><b>English for Process and Progress in Engineering</b></p> <p>Key flowcharts for Engineering design: objectives, metrics</p> <p>Communicating cause &amp; effect; numbers &amp; statistics; graphics; effective 'group speak'</p> <p>(pair and group work to practice associated content and language)</p>	<p>Students will develop the skills and language needed to discuss, negotiate/problem solve (as a group) and effectively communicate action and specifications in English</p>

6	<p><b>Language in Engineering Design &amp; Feasibility Factors</b></p> <p>Key parameters for Engineering design: constraints, criteria</p> <p>Communicating conditions (conditionals and imperatives; register); Global Communication requirements</p>	<p>Students will develop the skills and language needed to evaluate and communicate parameters and limitations in English.</p>
7	<p><b>Language in Engineering Project Design: Taking the first steps</b></p> <p>Product design kick start, Problem statement, Stakeholders</p> <p>Communicating cohesively, comprehensively and persuasively in Global context</p> <p>(Organisation, Style and Register)</p>	<p>Students will further develop the skills and language needed for presenting problems, undertaking needs analysis (stakeholders: local and global), and suggesting solutions in English.</p>
8	<p><b>Engineering Project Design: Evaluation Skills and Language</b></p> <p>Product design kick start, Stakeholders</p> <p>Engineering Design Case Study III</p> <ul style="list-style-type: none"> <li>• Uber</li> <li>• HongKong-Zhuhai-Macao Bridge</li> </ul> <p>Case study/Context language analysis. Global STEM Syntax &amp; Semantics development. Language Development Review</p>	<p>Students will develop further understanding of STEM context and language and review English language development.</p>
9	<p><b>Product Description, Production &amp; Maintenance Language (instruction)</b></p> <p>Development of concise and comprehensive writing skills &amp; error analysis. Avoiding misunderstandings in multilingual working team</p> <p>Key parameters for Engineering design I (ergonomics, maintenance, manufacturing)</p> <p><b>Engineering Design Case Study IV</b></p> <p>Aircraft engine design, a comparison between Soviet Union and USA industrial system</p> <p>Product description, production &amp; maintenance language (instruction). Development of concise and comprehensive writing skills &amp; error analysis. Avoiding misunderstandings in multilingual working teams</p>	<p>Students will develop the skills and language needed to design and communicate the ergonomic, production and maintenance requirements of a product in English.</p>
10	<p><b>English for Key parameters for Engineering design II (environment, sustainability)</b></p> <p>Communicating &amp; Evaluating design factors for environment and sustainability</p> <p><b>Engineering Case Study V</b></p> <p>Supporting claims with data; synthesising multiple sources (Link to Sustainable Development Goals &amp; Global Challenges)</p>	<p>Students will develop the skills and language to evaluate, present and support environmental and sustainability design factors.</p>

11	<b>Evaluation</b>  How to make right selection-Multiple-criteria decision analysis  Argumentation & synthesising sources. Decision-making across cultures activity	Students will further develop critical thinking and global decision making skills.
12	<b>Invited Guest Speaker</b>  Associate Director in the Division of Medical Apparatus in Mindray Co., Ltd  Note-taking, Lecture Listening, summarising and presentation skills in English development	Students will develop critical thinking, listening and presentation skills.
13	Quiz  Practice Presentations & Reflections (self-evaluation)	Students will develop their self-evaluation and personal development skills
14	Final Presentations & Reflections	As above
15	Final Presentations & Reflections > Personal Statements	As above
16	Writing applications, editing personal statements and preparing for academic and professional interviews. Translating and communicating experience into employability: content and language	Students will practice writing applications and participating in English and develop communication skills needed.

18. 教材及其它参考资料 Textbook and Supplementary Readings

To be produced by tutors
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课程评估 ASSESSMENT

19. 评估形式 Type of Assessment	评估时间 Time	占考试总成绩百分比 % of final score	违纪处罚 Penalty	备注 Notes
出勤 Attendance		10		
课堂表现 Class Performance		20		
小测验 Quiz		20		
课程项目 Projects		25		
平时作业 Assignments				
期中考试 Mid-Term Test				
期末考试 Final Exam				
期末报告		25		

**Final Presentation**  
其它（可根据需要  
改写以上评估方  
式）  
**Others (The  
above may be  
modified as  
necessary)**


20. 记分方式 **GRADING SYSTEM**

- A. 十三级等级制 **Letter Grading**  
 B. 二级记分制（通过/不通过） **Pass/Fail Grading**

**课程审批 REVIEW AND APPROVAL**

21. 本课程设置已经过以下责任人/委员会审议通过  
**This Course has been approved by the following person or committee of authority**

Center for Language Education

