Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJ Wilson</td>
<td><a href="mailto:PJ.Wilson@staff.qibt.qld.edu.au">PJ.Wilson@staff.qibt.qld.edu.au</a></td>
</tr>
</tbody>
</table>

Staff Consultation

Your lecturer/tutor is available each week for consultation outside of normal class times. Times that your lecturer/tutor will be available for consultation will be given in the first week of lectures. A list of times and rooms will be published on the QIBT Portal under the “myTimetable” link.

Prerequisites

There are no prerequisites for this course

Brief Course Description

This course introduces students to the global goals of engineering practice with a strong emphasis on professionalism and ethics. It provides students with an engineering knowledge framework encompassing the History of Engineering, The Engineering Method, Problem Solving, Design, Sustainability, Engineering Ethics and Career Planning. It also develops student's generic skills required for tertiary study of Engineering and future professional practice.

The course is intended to equip students with the generic skills of the Griffith Graduate and professional responsibility to others that should be integral to their University studies and later professional practice. Exposure to practising engineers is a feature of this course

Introduction

This course is designed to provide students with core enabling skills fundamental for use throughout their Engineering degree studies and future professional practice and development. Engineers need a wide variety of skills to be a successful practising Engineer. This first year engineering common course aims to assist students prepare for university study and to place their study in the context of what it means to be a professional engineer. It provides students with an engineering knowledge framework encompassing the History of Engineering, The Engineering Method, Engineering Ethics, Sustainability and Career Planning. Students will work in teams on practical design tasks. The course is structured using project-based learning, focussing on engineering practice for sustainability and various professional skills such as problem solving, design, project management, teamwork, and communications including team report writing and presentations. The course also aims to ensure students are competent in the operation of software essential in later courses within the engineering program.

Rationale

Engineers need to develop a variety of skills pertinent to being a successful practising Engineer. This course is designed to provide students with basic set of fundamentals that will be used throughout their Engineering degree studies and future professional practice and development. Students will work in teams on practical design tasks directly related to core engineering disciplines.

The course is structured around a number of modules, focusing on engineering practice for sustainability and various professional skills such as problem solving, teamwork, communications, including team report writing and presentations, and career planning.

Aims

This is a first semester course within the Diploma of Engineering which aims to assist students in preparing for university study and to place their study in the context of what it means to be a professional engineer.

This course focuses on developing students’ knowledge and skills in the areas of engineering history, design practice, professional ethics and communication skills.
also aims to highlight the need for professional communication in multidisciplinary teams, developing students’ ability to communicate verbally and in writing. The course also aims to ensure students are competent in the operation of software essential in later courses within the program.

Learning Outcomes

After successfully completing this course, you should be able to:

1. Identify and acquire the required skills to successfully undertake the program in which you are enrolled
2. Identify and describe the multi-faceted role of the professional engineer in society
3. Identify and describe the ethical and moral obligations of professional engineers to act in an environmentally, socially and economically responsible manner
4. Understand how this engineering program will provide access to knowledge and skills to become a professional engineer
5. Identify what is required to communicate effectively in a professional manner both in written and oral form
6. Effectively show written and oral communication skills and understand from staff and peer feedback, what areas you need to improve
7. Use Microsoft Excel competently in future courses in your program

Texts and Supporting Materials

Required texts and references
Students will be provided with readings via the Learning@QIBT website throughout the semester, which can be accessed online or downloaded and printed by the students. In addition, students must purchase the following textbook for further reading:


Note: A number of copies of this text will also be available from the Gold Coast Campus library.

Recommended texts and references

- Blicq, R & Moretto, L (2004), Technically write!, (6th ed.), Prentice Education Canada Inc, Canada

Organisation and Teaching Strategies

The course content is delivered over the semester through 13 two hour lectures and 13 two hour tutorial sessions held on the Gold Coast campus.

In lectures you will be introduced to the essential areas of the course content. You will receive information about, and explanations of, the principal topics that are relevant to achieving the learning objectives of the course. Lectures are your opportunity to gain knowledge of important course content. Problem solving exercises elaborating the lecture material will be introduced during the lecture time.

Lectures will provide you with the opportunity to clarify your own ideas on the content material and apply them to your team project while developing teamwork and necessary problem solving skills, as well as written and oral communication skills.

Class Contact Summary

Attendance
To successfully achieve the course Learning Outcomes, each student will be required to attend the two hour lecture and a two hour tutorial session each week. Your attendance in class will be marked once during each of the two 2-hour classes. To receive full attendance, you must be present in the classroom on both occasions. Therefore, you are encouraged to attend and participate in all classes throughout the semester. You will also greatly advance your chances of success in the course by fully using the contact time you have available with your lecturers and tutors. The contact time provided in lectures, tutorials/workshops/laboratories is for your benefit; it is your opportunity to have any questions about course content or requirements clarified.

Tutorial Attendance
Attendance at tutorial sessions is compulsory, as satisfactory performance in the tutorial based design project assignment is a required condition for achieving a passing grade in this course. If you do not attend the tutorial sessions, you will not be able to submit the project reports or the design assignment for assessment.

Participation in Class
You are expected to actively participate in classes each week.

Course Materials
Lecture notes will be made available to you on the Learning@QIBT site on the student portal and you are advised to print these out and bring them to each class so that extra notes can be added.

Independent Learning
You are expected to reinforce your learning gained during contact time by undertaking sufficient independent study. For this 10 CP course, you will need to spend at least 10 hours per week engaged in activities that will help your learning and fulfill the course objectives. Thus, provided you have well used the 4 hours per week of formal contact, you would then complete at least 6 hours per week of independent study.

Consultant Times
Attendance during consultation times is optional but you are encouraged to use this extra help to improve your learning outcomes.

Program Progression
You are reminded that satisfactory Program Progression requires that attendance in classes is maintained at equal to or greater than 80%, and that GPA is maintained at equal to or greater than 3.5 [please see QIBT Policy Library - Program Progression Policy - for more information].

Content Schedule

Weekly Teaching Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Activity</th>
<th>Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Course Introduction: Introduction to Engineering</td>
<td>Lecture</td>
<td>Ch 1 &amp; Notes</td>
</tr>
<tr>
<td>2</td>
<td>The Engineering Method: Excel for Engineering</td>
<td>Lecture</td>
<td>Ch 2 &amp; Notes</td>
</tr>
<tr>
<td></td>
<td>Project Introduction &amp; Team Introduction to Teamwork Tech Writing &amp; Project File Resources</td>
<td>Tutorial</td>
<td>Notes &amp; Resources</td>
</tr>
<tr>
<td>Item</td>
<td>Assessment Task</td>
<td>Weighting</td>
<td>Relevant Learning Outcomes</td>
</tr>
<tr>
<td>------</td>
<td>----------------</td>
<td>-----------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Writing Skills</td>
<td>15%</td>
<td>1,4,5,6</td>
</tr>
<tr>
<td>2</td>
<td>Design Project Team Progress Individual Presentations</td>
<td>5%</td>
<td>1,4,5,6,7</td>
</tr>
<tr>
<td>3</td>
<td>Design Project Competition (held at Gold Coast Campus)</td>
<td>15%</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>4</td>
<td>Design Project Reporting</td>
<td>30%</td>
<td>1,2,3,4,5,6,7</td>
</tr>
<tr>
<td>5</td>
<td>Final Exam</td>
<td>35%</td>
<td>2,3,4,5,7</td>
</tr>
</tbody>
</table>

**Assessment Details**

**Item 1: Workbook**

All students are to keep their own workbook in which they keep their own record of the individual project work that they do as part of the project team. The workbook will contain project management information (meeting minutes, record of conversations, action items, etc), design development and personal performance and reflective practice notes. The student workbooks will also be formatively assessed (for feedback and not marks) by your tutor. Your workbook must therefore be available for inspection upon request in Weeks 2-12.

Your workbook will be taken into consideration when applying the outcomes of the peer assessment process to determine your results for the team Project File.

This is an individual submission.

**Item 2: Writing Skills**

Five short writing exercises will be held in various tutorial classes worth 3% each for a total of 15% of the final 1007ENG semester mark. Students will write on a topic related to Critical, Systems, Creative and Design thinking or Reflective Practice as detailed in the class by the tutor. Students are expected to use a technical writing methodology and format and resultant outlines are to be documented in the workbook.

This is an individual submission.
**Item 3:**
**Team Project Progress Presentation**
The design project involves you working together with other students as a team to construct a bridge over a given span. Construction of the bridge is performed mainly in tutorial time and will require your team to maintain a Project File (including Design File). Details and specifications for the bridge will be provided by your lecturer. As your project progresses, you will be required to report to the class on your team’s progress using PowerPoint slides to guide the audience through the presentation. A 1-2 page executive summary, at least six (6) PowerPoint slides and a minimum four (4) minute talk will be required from each student for assessment worth 5% of the final 1007 ENG marks. A hardcopy of the presentation and any handouts are to be presented to the tutor before the team presentation begins. The team will present together in Week 8 with each team member presenting a different topic. Team interaction will be taken into account when marking.

This is an individual submission.

**Item 4:**
**Team Project Competition**
A design project performance competition event will be held at Gold Coast. Students located at Mt. Gravatt will be transported by QIBT to the Gold Coast campus.

This is a group submission.

**Item 5:**
**Team Project Project File**
The Project File will become a comprehensive written report of up to 20,000 words (maximum) including a critique on the chosen design and the strengths of your project, as well as on your team dynamics and team and peer assessment. Peer assessments of individual contributions are also collected and peer assessment factors are applied to determine an individual team member’s Project File results. Project Files are used by management to audit project progress and quality. It must be available for inspection by your tutor upon request in Weeks 3-11. Details and specifications for the Design Project will be provided by your lecturer.

A professional report is required. The use of a word processor is mandatory. Use

- Times New Roman or Arial 12 pt font
- All four margins 20mm
- At page size
- Single or 1.5 line spacing
- Correct page orientation in a 3-4 ring binder

Reports that do not comply with this format will not be accepted. The report will not be marked and will attract the specified late penalty until a correctly formatted report is submitted.

The Project File is partitioned into Strategic, Tactical & Operation Planning and Management sections. The Strategic planning (due Week 4) and the Tactical planning (due Week 7) sections will be used for formative assessment to improve the work produced. The sections will be submitted both as a softcopy through TurnItIn and as a hardcopy at the beginning of the project tutorial class in the week due. An initial mark out of 5% will be awarded but students have the opportunity to resubmit an improved version, after tutor feedback, for a possible total of 10% for each section.

The complete final Project File must be submitted both as a softcopy through TurnItIn and as a hardcopy at the beginning of the Week 12 project tutorial class. TurnItIn will highlight any sections of your submitted work that have been plagiarised and you are able resubmit your assignment through TurnItIn after making changes.

This is a group submission. Contribution to the teamwork assessed through peer assessment and individual project workbooks will affect final individual marks.

**Item 6:**
**Final Exam**
The final examination will be a closed book exam covering all aspects of the lecture series and consists of both multiple choice and short answer questions.

**Submission and Return of Assessment Items**

Normally you will be able to collect your assignments in class within fourteen [14] days of the due date for submission of the assignment. Results for assessment items are also normally published online within fourteen [14] days of the due date.

**Retention of Originals**

You must be able to produce a copy of all work submitted if so requested. Copies should be retained until after the release of final results for the course.

**Extensions**

To apply for an extension of time for an assessment item you must submit a written request to your lecturer via the Student Website at least 48 hours before the date the assessment item is due. Grounds for extensions are usually: serious illness, accident, disability, bereavement or other compassionate circumstances and must be able to be substantiated with relevant documentation [e.g. medical certificate]. Please refer to the QIBT website - Policy Library - for guidelines regarding extensions and deferred assessment.

**Penalties for late submission without an approved extension**

Penalties apply to assignments that are submitted after the due date without an approved extension. Assessment submitted after the due date will be penalised 10% of the TOTAL marks available for assessment (not the mark awarded) for each day the assessment is late. Assessment submitted more than five days late will be awarded a mark of zero (0). For example:

- > 5 minutes and <= 24 hours 10%
- > 24 hours and <= 48 hours 20%
- > 48 hours and <= 72 hours 30%
- > 72 hours and <= 96 hours 40%
- > 96 hours and <= 120 hours 50%
- > 120 hours 100%

**Note:**

- Two day weekends will count as one day in the calculation of a penalty for late submission.
- When a public holiday falls immediately before or after a weekend, the three days will count as one day in the calculation of a penalty for late submission.
- When two public holidays (e.g. Easter), fall immediately before or after, or one day either side of a weekend, the four days will count as two days in calculating the penalty for late submission.
- When a single public holiday falls mid-week, the day will not be counted towards the calculation of a penalty.

Please refer to the QIBT website - Policy Library - Assessment Policy for guidelines and penalties for late submission.
Assessment Feedback

Marks awarded for assessment items will also be available on the on-line grades system on the Student Website within fourteen [14] days of the due date.

Generic Skills

QIBT aims to develop graduates who have an open and critical approach to learning and a capacity for lifelong learning. Through engagement in their studies, students are provided with opportunities to begin the development of these and other generic skills.

Studies in this course will give you opportunities to begin to develop the following skills:

<table>
<thead>
<tr>
<th>Generic Skills</th>
<th>Taught</th>
<th>Practised</th>
<th>Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Information Literacy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Secondary Research</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Critical and Innovative Thinking</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Academic Integrity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Self Directed Learning</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Team Work</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cultural Intelligence</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>English Language Proficiency</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Additional Course Generic Skills

<table>
<thead>
<tr>
<th>Specific Skills</th>
<th>Taught</th>
<th>Practised</th>
<th>Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity &amp; Innovation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Responsible, effective citizenship</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Additional Course Information

Course Communication
You are instructed to regularly access and monitor any important announcements, timetable changes and dates regarding the course via the QIBT Portal.

Teacher and Course Evaluations
Your feedback is respected and valued by your lecturers and tutors. You are encouraged to provide your thoughts on the course and teaching, both positive and critical, directly to your lecturer and tutor or by completing course and lecturer evaluations via QIBT’s online evaluation tool whenever these are available.

Students find this professional course “fun and interesting”. In particular, they are enthusiastic about developing their knowledge and skills as future professional engineers through working on engineering design projects as a team. In response to students’ constructive feedback regarding having four hours of classes back to back, the 2-hour lectures and 2-hour lab sessions are now held with a 1-hour break.

Academic Integrity

QIBT is committed to maintaining high academic standards to protect the value of its qualifications. Academic integrity means acting with the values of honesty, trust, fairness, respect and responsibility in learning, teaching and research. It is important for students, teachers, researchers and all staff to act in an honest way, be responsible for their actions, and show fairness in every part of their work. Academic integrity is important for an individual’s and the College’s reputation.

All staff and students of the College are responsible for academic integrity. As a student, you are expected to conduct your studies honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is considered a breach of academic integrity and is unacceptable.

Some students deliberately breach academic integrity standards with intent to deceive. This conscious, pre-mediated form of cheating is considered to be one of the most serious forms of fraudulent academic behaviour, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, QIBT also recognises many students breach academic integrity standards without intent to deceive. In these cases, students may be required to undertake additional educational activities to remediate their behaviour and may also be provided appropriate advice by academic staff.

As you undertake your studies at QIBT, your lecturers, tutors and academic advisors will provide you with guidance to understand and maintain academic integrity; however, it is also your responsibility to seek out guidance if and when you are unsure about appropriate academic conduct.

Please ensure that you are familiar with the QIBT Academic Integrity Policy, this policy provides an overview of some of the behaviours that are considered breaches of academic integrity, as well as the penalties and processes involved when a breach is identified.

For further information please refer to the Academic Integrity Policy on the QIBT website – Policy Library.

Risk Assessment Statement

There are no out of the ordinary risks associated with this course.

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Note: For all Diploma level programs, QIBT acknowledges content derived from Griffith University.