SUBJECT OUTLINE

48260 Engineering Project Management

Course area UTS: Engineering

Delivery Autumn 2016; City

Credit points 6cp

Requisite(s) (((48122 Engineering Practice Review 1 OR 48120 Review of Engineering Practice 1 OR 41038 Engineering Practice Reflection 1)) OR ((96 Credit Points in spk(s): C10063 Bachelor of Engineering Bachelor of Arts in International Studies OR 96 Credit Points in spk(s): C10065 Bachelor of Engineering Bachelor of Business OR 96 Credit Points in spk(s): C10066 Bachelor of Engineering Science OR 96 Credit Points in spk(s): C10067 Bachelor of Engineering OR 96 Credit Points in spk(s): C10073 Bachelor of Engineering Bachelor of Science OR 96 Credit Points in spk(s): C10075 Bachelor of Engineering Bachelor of Medical Science OR 96 Credit Points in spk(s): C10078 Bachelor of Engineering Bachelor of Biotechnology OR 96 Credit Points in spk(s): C10080 Bachelor of Engineering in Civil Engineering OR 96 Credit Points in spk(s): C10084 Bachelor of Engineering in Electrical Engineering OR 96 Credit Points in spk(s): C10085 Bachelor of Engineering in Computer Systems Engineering OR 96 Credit Points in spk(s): C10086 Bachelor of Engineering in Telecommunications Engineering OR 96 Credit Points in spk(s): C10087 Bachelor of Engineering in Mechanical Engineering OR 96 Credit Points in spk(s): C10088 Bachelor of Engineering in Manufacturing Engineering OR 96 Credit Points in spk(s): C10091 Bachelor of Engineering in Manufacturing Systems Engineering OR 96 Credit Points in spk(s): C09068 Bachelor of Engineering (Honours) Bachelor of Arts in International Studies OR 96 Credit Points in spk(s): C09070 Bachelor of Engineering (Honours) Bachelor of Business OR 96 Credit Points in spk(s): C09066 Bachelor of Engineering (Honours) OR 96 Credit Points in spk(s): C09072 Bachelor of Engineering (Honours) Bachelor of Science OR 96 Credit Points in spk(s): C09074 Bachelor of Engineering (Honours) Bachelor of Medical Science OR 96 Credit Points in spk(s): C10339 Bachelor of Engineering Bachelor of Creative Intelligence and Innovation OR 96 Credit Points in spk(s): C09076 Bachelor of Engineering (Honours) Bachelor of Creative Intelligence and Innovation))) AND 48240 Design and Innovation Fundamentals

Result type Grade and marks

Subject coordinator

Dr Hiyam Al-Kilidar
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Phone: 02 9514 9057 ; Email: hiyam.al-kilidar@uts.edu.au

Teaching staff

If you wish to discuss questions or need further help with understanding concepts presented in the subject, please contact the lecturer by email to organise a suitable time.

Announcements will be made on UTS-Online to cover commonly asked questions. Please check this area prior to contacting the lecturer.

Email messages will be responded to within five working days. Phone messages will not be responded to.

Subject description

This latter-stage undergraduate subject adopts a holistic view of project management, considering issues throughout a

project life cycle. It considers the legal, contractual and managerial responsibilities of engineering managers and organisations, from the definition phase of a project to its conclusion. The perspective of stakeholders, particularly the project manager, are considered. The emphasis is interdisciplinary and relevant to all fields of engineering. Topics include: modern project management practices; organisational strategy, structures and culture; project delivery; definition, timing, costing and planning; managing risk and scheduling resources; project leadership, teams and inter-oganisational relationships; project management contract law; conflict resolution, progress and performance; and project measurement, evaluation, audit and closure. This compulsory core Engineering subject involves relevant, practice-oriented assessment tasks.

Subject objectives

Upon successful completion of this subject students should be able to:

1. Apply project management tools and techniques
2. Apply report writing & oral presentation skills
3. Demonstrate competency in teamwork
4. Conduct critical self and peer review of work skills
5. Apply research skills

This subject also contributes specifically to the development of the following faculty course intended learning outcomes and Engineering Australia (EA) Stage 1 competencies:

- B4. Apply decision making methodologies to evaluate solutions for efficiency, effectiveness and sustainability, which is linked to EA Stage 1 Competencies: 1.2, 2.1 (B.4)
- B6. Demonstrate research skills, which is linked to EA Stage 1 Competencies: 1.4, 2.1 (B.6)
- D1. Manage own time and processes effectively by prioritising competing demands to achieve personal goals, which is linked to EA Stage 1 Competencies: 3.5, 3.6 (D.1)
- E1. Communicate effectively in ways appropriate to the discipline, audience and purpose, which is linked to EA Stage 1 Competency: 3.2 (E.1)
- E2. Work as an effective member or leader of diverse teams within a multi-level, multi-disciplinary and multi-cultural setting, which is linked to EA Stage 1 Competencies: 2.4, 3.2, 3.6 (E.2)
- E3. Identify and apply relevant project management methodologies, which is linked to EA Stage 1 Competencies: 1.6, 2.2, 2.4 (E.3)
- F1. Be able to conduct critical self-review and performance evaluation against appropriate criteria as a primary means of tracking personal development needs and achievements, which is linked to EA Stage 1 Competency: 3.5 (F.1)
- F2. Appreciate ethical implications of professional practice, which is linked to EA Stage 1 Competency: 3.1 (F.2)

Teaching and learning strategies

This subject includes 3 hours per week of face-to-face contact with the subject facilitator and peers. To gain the most from this time students should read the reference materials before attending class for that week.

The face-to-face class is run in a modified lecture format. Some theory (from the readings) will be further reinforced and relevant industry examples given where appropriate. The subject involves a significant group project based on research and interaction with industry. In this assessment task students prepare authentic industry documents such as a project plan, progress and status reports. Students need to fully engage with this project. Some time is given in class for students to collaborate on this project.

It is considered that to gain a pass on an undergraduate subject in Faculty of Engineering and IT at UTS an average student will be required to spend 150 hours per session of study in that subject. It is anticipated you will spend at least a total of 10 hours per week on this subject.

Content

The specific material to be covered includes;

- Modern Project Management practices
- Project Delivery; Definition, Timing, Costing, Planning
- Managing risk and scheduling resources
- Project teams
- Progress and performance
- Project measurement, evaluation, and closure

Program

Week/Session	Dates	Description
0	14 Mar	Students should read the Subject Outline and watch the introductory lecture. **Notes:** Start 2. Group Assignment 'Sign up' to a topic group through Groups on 48260 UTSOnline. Groups are formed by the subject co-ordinator based on the topic you selected and 'allocated' lists. The lecturer will place those students who do not nominate into a topic and group. Only those students allocated to the lecture and seminar will be placed in groups.
1	21 Mar	Topic Presentation: Modern Project Management. Text: Chpt 1 **Notes:** 2. Group Assignment Group members will be introduced to each other. Group members will individually consider what they can contribute to the group. Time will be given in class for groups to collaborate.
2	28 Mar	Topic Presentation: Managing Project Teams. Text: Chapt. 12 **Notes:** 2. Group Assignment Time will be given in class for groups to collaborate.
3	4 Apr	Topic Presentation: Defining the Project. Text: Chpt 4 **Notes:** 2. Group Assignment Time will be given in class for groups to collaborate

4	11 Apr	Topic Presentation: Estimating Project cost and time Text: Chpt 5 **Notes:** 2. Group Assignment Time will be given in class for groups to collaborate.
5	18 Apr	Topic Presentation: Managing Risk Text: Chpts 7 **Notes:** 2. Group Assignment Time will be given in class for groups to collaborate.
	25 Apr	StuVac - non teaching **Notes:** Avoiding Plagiarism quiz closes
16	2 May	Topic Presentation: Develop[ing Project Plan Text: Chpt 6 **Notes:** 2. Group Assignment Time will be given in class for groups to collaborate.
7	9 May	Topic Presentation : Scheduling Resources Text: Chpt 8 **Notes:** 2. Group Assignment Groups should meet to finalise their group project. Time will be given in class for collaboration.
8	16 May	Lecture: Progress and Performance - Control Cycle Text: Chpt 13 **Notes:** 2. Group Assignment Time will be given in class for collaboration.

9	23 May	Topic Presentation: Project Closure Text: Chpt 14 **Notes:** 2. Group Assignment Time will be given in class for collaboration.
10	30 May	2. Group Assignment 2.1.3 Group Report Presentations The subject coordinator will advise which room you are to attend. Your timeslot will be based on your 'allocated' seminar. **Notes:** Access SPARK, rate your group members and provide written feedback on their performance. Further details to be provided in class.This is a summative assessment.
11	6 Jun	Lecture: Revision
		4. Formal Examination Period (students to refer to the University Exam Timetable for location and time of Final Examination) Note: Students must achieve a mark of 50% in the final examination and greater than 50% overall to pass the subject. **Notes:** If you have obtain a mark of >= 50% for the subject, but have failed in the compulsory assessment item, you will be awarded a Fail (X) grade for the subject.

The Description column gives the lecture topic and textbook reference.

Assessment

Information on general Faculty policy about assessment procedures etc. is provided in the Faculty Student guide. The following information is provided in addition to this, and covers any variations to the defaults in the course guide.

Submitting and collecting assignments
All deliverables associated with the group project must be submitted in hard copy AND online to the 'turnitin' antiplagiarism system. See the Turnitin section in the Assignments section of UTSOnline for more information.

All hardcopy assignments should be submitted directly to your lecturer at the start of the lecture.

If you have obtain a mark of > or = 50% for the subject, but have achieved less than 50% in the final exam your mark will be recorded as an X grade.

Extensions and late assignments
No late assignments are accepted.

Extensions of time will only be granted under exceptional circumstances. Requests for extensions of time must be submitted in writing to the Subject Coordinator prior to the due date of the relevant assessment task. The supporting evidence such as a Doctor's Certificate, Police Report or Statutory Declaration should be attached to this request. Attach a copy of the approval for an extension of time and the supporting evidence to the submitted Assessment Task.

The Subject Coordinator reserves the right to apply a penalty or reject the late submission. Any deviations from this will be penalised at the rate of 10% per day late.

Required Assignment Format
All written assignments must be typed and should meet the following format:

- Report format is required for the Group Project. Resources relating to acceptable report format are nominate on UTSOnline.
- First page is Faculty Coversheet and is available on the Faculty website. This should be signed by all group members.
- Second page is the title page should include the subject name and number, assessment task's title, author/s name/s and student ID, date of submission and word count.
- Third page is a screenshot of your turnitin submission (if required) showing the similarity index and your name.
- Fourth page should be the relevant marking sheet.
- In accordance with the FEIT cover sheet put you name(s) and SID on each page as a header. Date and page number should be included as a footer. Page number is most accessible on the right hand side of the page.
- Adher to the word count nominated for each assessment task. You have +/- tolerance of 10%.
- Include the Contents, List of Figures and List of Tables.
- All reference material should generally be more recent than 2010.
- One and a half-space the text to allow room for comments.
- Print only on single side of paper.
- The Group assignment should be bound as 3 documents namely: Plan and Abstract, Report, 2*Project Progress and Status Reports.
- As a precaution, you are required to always keep a copy of your work. If it gets misplaced or lost, there should be another copy that you can submit.
- All sources must be adequately and accurately referenced using the UTS:Harvard referencing style (Parenthetical Author Date style). Details of this system are available from the UTS:Library website.

Assessment task 1: Avoiding Plagiarism Quiz

Intent: To ensure that students are aware of the appropriate academic conduct

Objective(s): This assessment task addresses subject learning objectives:

2 and 4

This assessment task contributes to the development of the following course intended learning outcomes:

E.1 and F.2

Type: Quiz/test

Groupwork: Individual

Weight: Mandatory task that does not contribute to subject mark

Task: Online multiple choice quiz.

An online quiz called 'Avoiding Plagiarism' is available under 48260 UTSOnline Assessment Tasks.

Review the resource materials provided.

Students are then required to complete the Online multiple choice quiz to ensure they have an understanding of relevant Academic Conduct and related procedures. Students are required to get a minimum of 95/105 for this quiz. 2 attempts are allowed. This assessment task is compulsory. Final marks will be withheld until a satisfactory pass in this assessment task has been achieved.

Due: See Program

Criteria linkages:

Criteria	Weight (%)	SLOs	CILOs
Communicate Effectively	50	2	E.1
Demonstrate Ethical Approach	50	4	F.2

SLOs: subject learning objectives
CILOs: course intended learning outcomes

Assessment task 2: Group Project (& sub-tasks)

Intent: To organize & work as a team to define, produce & present outcomes, and to monitor the Project Management process

Objective(s): This assessment task addresses subject learning objectives:

, 1, 2 and 3

This assessment task contributes to the development of the following course intended learning outcomes:

B.4, B.6, D.1, E.1, E.2, E.3 and F.1

Type: Project

Groupwork: Group, group assessed

Weight: 40%

Task: You will work in groups of up to 9 people to develop a detailed project management plan for a given project.

Your plan should include (but is not limited to):

Activities, Network Diagram, Risk Management Plan, Resource Plan, Microsoft Project (or equivelant) generated program, Detailed Financial Estimates, etc..

Details of the project and the deliverabvles will be made available in week 1.

Due: Various due dates depending on the particular deiverable. See assignment brief to be made available in week 1.

Criteria linkages:

Criteria	Weight (%)	SLOs	CILOs
Proficient Communication	30	2, 3	B.4, D.1, E.1
Appropriate Project Management tools and techniques used correctly	40	1	D.1, E.2, E.3, F.1
Appropriate professional use and management of research	30		B.6

SLOs: subject learning objectives
CILOs: course intended learning outcomes

Further information: **Required Assignment Format**

See earlier requirements.

Assessment task 3: In class exercises

Intent: To develop further understanding of the issues associated with Project Management

Objective(s): This assessment task addresses subject learning objectives:

1 and 4

This assessment task contributes to the development of the following course intended learning outcomes:

D.1 and E.3

Type: Exercises

Groupwork: Individual

Weight: 10%

Task: To ensure that you have understood the material presented in the lectures and in the recommended chapters in the textbook, online quizzes have been developed. Details of these are available in the Assessment Task section of 48260 UTSOnline. Closing dates for the quizzes are given in the Program section of this document.

Criteria linkages:

Criteria	Weight (%)	SLOs	CILOs
Correct understanding of Project Management concepts	100	1, 4	D.1, E.3

SLOs: subject learning objectives
CILOs: course intended learning outcomes

Assessment task 4: Final exam

Intent: Understanding of key concepts.

Objective(s): This assessment task addresses subject learning objectives:

1

This assessment task contributes to the development of the following course intended learning outcomes:

E.1 and E.3

Type: Examination

Groupwork: Individual

Weight: 50%

Criteria linkages:

Criteria	Weight (%)	SLOs	CILOs
Correct understanding of Project Management concepts	100	1	E.1, E.3

SLOs: subject learning objectives
CILOs: course intended learning outcomes

Use of plagiarism detection software

Turnitin Instructions

Electronic Assignment submission and plagiarism detection system

Turnitin is an online resource for educators and students and is an aid in the development of quality writing and research skills. Turnitin aims to prevent and detect plagiarism by comparing submitted papers to billions of pages of content located on the Internet and to the assignment databases. Electronic Turnitin copies of assignments must be submitted on or before the due date.

Some points to remember when submitting your assignment to Turnitin

- Name your submission file FAMILY NAME, SID.
- Remove the cover sheet and marking sheet before you submit electronically.
- Only submit the 'core' of your assignment to Turnitin.
- Only submit 48260 assignment to the 48260 site.
- Attach a screenshot of the turnitin page which shows the similarity index and your name to your hardcopy submission.

Moderation of marks

An electronic software program SPARK will be used to moderate the final marks in your Group Project. You are also required to give your group members written feedback. This is an important skill often required in industry.

Minimum requirements

In order to pass the subject, you must:
comply with all assessment details given elsewhere in this guide and

- achieve a mark of at least 50% in the final examination and
- achieve a combined mark of at least 50% for all assessment items

Required texts

Larson E.W., Honig B., Gray C.F., Dantin U., Baccarini D., 2014, Project Management - The Managerial Process, McGraw - Hill Education, Australia ISBN 9781743071809 (pbk.)

This book is available for purchase through UTS:Co-Op Bookshop or as an e-book through the publisher.

Copies are in UTS:Library and FEIT Building 11 Learning Precinct.

References

Students should access the latest edition of these of these books. UTS:Library should be able to help here.

Hartley S, Project Management: A Competency-Based Approach, Pearson.

Hughes B and Cottrell M, Sofware Project Manangement. online

Faniran O, Engineering Project Management - An introductory text, Pearson.

Kerzner H, Project Management - A Systems Approach to Planning, Scheduling and Controlling, Van Nostrand Reinhold.

Meredith JR and Mantel SJ, Project Management - A Managerial Approach, John Wiley & Sons.

Morris P, The Management of Projects: The New Model.

Nicholas JM, Managing Business and Engineering Projects - Concepts and Implementation, Prentice-Hall.

Pinto JK and Kharbanda OP, "Project Management and Conflict Resolution", Project Management Journal.

PMI, Project Management Casebook, Project Management Institute.

PMI, A Guide to Project Management Body of Knowledge, Project Management Institute.

Smith WJ, Engineering Project Management, 1st ed: Blackwell Science.

Turner JR, The Handbook of Project-based Management, 2nd ed: McGraw-Hill.

Other resources

UTS Online – www.online.uts.edu.au
UTSOnline is a web-based learning tool used in many UTS subjects. It can be accessed from inside and outside UTS via most web-browsers.

This subject will make use of UTSOnline (www.online.uts.edu.au) as a means of communication between teaching staff and students. You should be registered automatically if you have enrolled correctly. If you wish to receive email notices you must change the default email address to the address where you wish to receive mail (Note: all students have a UTS email account).

Students need to familiarise themselves with UTS Online. Announcements will be made using this facility. Students are expected to regularly check the announcements page for information.

Having problems logging on? You can contact the UTS Helpdesk on helpdesk@uts.edu.au or (02) 9514 2222. Their opening hours are from 9:00am to 9:30pm Monday to Friday, and 9:00am to 5:00pm Saturday and Sunday.

How do I log in to UTSOnline?
The URL for the UTSOnline log in page is: http://online.uts.edu.au/
You will need to log in to UTSOnline each time you use it.
Your user name is your student number

If you are a new user, your password is the first two letters of your family name (IN CAPITALS) followed by your student number. You can change this password at any time.

For further information see the Student Guide.

Graduate attribute development

For a full list of the faculty's graduate attributes and EA Stage 1 competencies, refer to the Student Guide.

Academic liaison officer

Academic Liaison Officers (ALOs) are academic staff in each faculty who assist three groups of students: students with disabilities or ongoing illness; students who have difficulties in their studies because of their family commitments (e.g. being a primary carer for small children or a family member with a disability); and students who gained entry through the UTS Educational Access Scheme or Special Admissions.

ALOs are responsible for determining alternative assessment arrangements for students with disabilities. Students who are requesting adjustments to assessment arrangements because of their disability or illness are requested to see a Disability Services Officer in the Special Needs Service before they see their ALO.

The ALO for UG students is:

Chris Wong
telephone +61 2 9514 4501

The ALO for PG students is:

Dr Prasanthi Hagare
telephone +61 2 9514 1952

Disclaimer

This outline serves as a supplement to the Faculty of Engineering and Information Technology Student Guide. On all matters not specifically covered in this outline, the requirements specified in the Student Guide apply.