

**Faculty of Engineering and**

**Information Sciences**

**ECTE250**

**Engineering Design and Management 2**

**Winter 2025 / Spring 2025**

**Management Booklet**

**Version: 1.2**

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**Document Control**

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| 1.2 | 11/09/2018 | Stefano Fasciani | Changes to adapt to two semester subject. |
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| 1.0 | 11/01/2017 | Stefano Fasciani | Imported and adapted from UOW Peter Vial Booklet. |

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**1. MANAGEMENT LECTURES AND WORKSHOPS**

**1.1 Lecture Description**

This subject provides an introduction to key “Project management design and development activities”. It provides new and additional information on management concepts and tools to enable Engineers to effectively manage the design and development aspects of both a project and its associated activities. This course is also intended to equip the students with the design management skills necessary to effectively manage and reflect upon their project management work during their degree course this year.

This subject includes a course of 8 hours of face to face lectures, which covers the various sub- topics as listed in the lecture program herein. The assessment for management component of the subject involves an exam (see Subject Outline for weight and date). However, it is expected that teams apply project management principles throughout the session within the context of their ECTE250 project.

Specifically, the lectures in this subject provide the student with an understanding of modern project management, how to integrate projects and organizational strategy, defining the scope and priorities of a project, developing project networks, identification and management of project risks, how to reduce project times and how to schedule resources. Additionally, the lectures and the assessments process provide opportunities to reflect upon past project team management performance and learning strategies within the current project team activity of ECTE250.

Also, will be material related to projects, practical electronics and writing reports and related areas. See schedule of dates for more details.

**1.2 Management Lecture Objectives**

*Objectives*

After satisfactory completion of the management component of ECTE250 the student will be able to:

 describe a project and understand the issues affecting project management;

 describe how to integrate projects and organizational strategy;

 understand how to develop a network plan to manage the time and resource elements of projects;

 describe and understand how to define the project scope and priorities;

 describe and understand and explain how to manage risks in projects;

 describe how to schedule resources to meet with project needs.

***This subject aims to promote tertiary literacy skills in the following areas:***

 A commitment to continued and independent learning, intellectual development, critical analysis and creativity.

 Developing a coherent and extensive knowledge in a discipline, appropriate ethical standards and, where appropriate, defined professional skills.

 Self-confidence combined with oral and written communication skills of a high level.

 A capacity for, and understanding of, teamwork.

 An ability to logically analyse issues, consider different options and viewpoints and implement decisions.

**1.3 Textbook**

Project Management: the Managerial Process, 6th Edition, by Erik W Larson & Clifford F Gray,

McGraw Hill.

Supporting material such as assignment descriptions and tasks, and class handouts will be supplied to students at appropriate times throughout the semester. Any copies of lecture slides used but not sourced from the required text, or additional material, will likewise be supplied to students or made available online.

This text will be referenced extensively within the lectures, workshops, and with homework external to the workshops. Therefore, it is strongly recommended that each student obtain an individual copy of this text. Copies are available at the university bookshop. This text will also be used in ECTE351.

Refer to the Project Information booklet for more details of assessment tasks. Assessment weight and other details are provided in the Subject Outline for ECTE250.

**Optional reading**

 Samson, Danny, (edited) Management for Engineers, 3rd Edition, Prentice Hall (Pearson

Education Australia), 2002.

 Cravan, J.C., Gooley, J.V., McCaffrey, J.K., and McRae, E.L., A Guide to Business Law –

New South Wales, 9th edition, Law Research Publications, 1994.

 Barron, M.L., Fletcher, R.S.A., Fundamentals of Business Law, 3rd edition, McGraw Hill,

2000.

 Lanigan, Mike, Engineers in Business - The Principals of Management and Product Design, Addison – Wesley, 1992.

 Evans, James R. and Lindsay, William M., The Management and Control of Quality, 2nd edition, West publishing company, 1993.

 Bob Hughes & Mike Cotterell, Software Project Management, 3rd Ed.

 Joseph Phillips, IT Project Management On Track from Start to Finish, 3rd Ed.

 Kathy Schwalbe, Information Technology Project Management, 6th Ed., Thomson.

**2. MANAGEMENT ASSESSMENT TASKS**

**2.1 Management related Moodle quizzes**

There are three online management related Moodle quizzes. The assessment weight of these three quizzes is provided in the Subject Outline of ECTE250.

**2.2 Management Network Diagram Planning Assignment**

A management planning assignment with assessment weight as stated in the Subject Outline will be made available on Moodle. This assignment will be based on material taught in the management lectures and will be due as per Subject Outline. See Moodle for assignment details.

**2.3 Management Exam**

There will be multiple choice questions, open-ended questions, and one network diagram planning problem in a closed book exam during **Spring** session. The management questions will be based on the management lectures and workshops. Students are advised to revise all the lectures related textbook chapters as many times as necessary.

**2.4 Assessment Submission Dates and times**

For all dates and times for assessment submissions, see the Subject Outline.

**3. RECOMMENDED READING/REFERENCES**

The following references are directly relevant to the project management topics.

[1] David Dowling, Anna Carew, Roger Hadgraft, *Engineering Your Future, An*

*Australasian Guide*, Wiley, 2010.

[2] Tanner, O.C., “One Page Project Manager (OPPM) Template”, 2006, [online]. Available:

[http://www.onepageprojectmanager.com/download/BasicTemplate.xls (](http://www.onepageprojectmanager.com/download/BasicTemplate.xls)accessed 9/2/10) [3] Gido, J. and Clements, J.P., *Successful project management***,** Thomson/South-Western,

Mason, OH, c2006.

[4] Olusegun, F., *Engineering project management: an introductory text*, Pearson Education

Australia, Frenchs Forest, N.S.W., c2005.

[5] Portney, Stanley, *Project management for dummies***,** IDG, Foster City, Calif.; Transworld, London, 2001.

[6] Baker, S., Sunny, K., *The complete idiot's guide to project management***,** Alpha Books, New York, c1998.

[7] Gray, C., Larson, E., *Project management: the managerial process***,** 6th Edition**,**

McGraw-Hill/Irwin, Boston, c2011.

[8] West, Michael A., *Effective teamwork: practical lessons from organizational research***,**

BPS Blackwell, Malden, MA, 2004.