



2040220 Project Management

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| Course Code | 2040220 | | Course Name | Project Management | |
| Instructor | Professor Rongyong Zhao | | Other Teachers | TBA | |
| Course delivery | Lectures | Seminars | Guest Speakers | Group Activities | Field Trip(s) |
| | √ | √ | √ | √ | √ |
| | Tutorials | Projects | Pitch(es) | Presentations | Outreach Workshop |
| | √ | | | √ | Optional |
| Total Hours | 54 in-class contact hours + Self Study Hours This course is worth 6 ECTS points. | | | | |

Course Description

This unit focuses on a holistic approach to project management. It provides students with a high level of understanding of the different processes involved in project management in a complex global context. Students will be provided with both theoretical knowledge and the practical skills that will enable them to effectively manage engineering projects in a sustainable and ethical manner.

Employers today are increasingly after engineers who have strong project management abilities as the entire industry shifts towards being project focused. They are also seeking individuals who possess high levels of ethics and sustainability awareness, combining these with management skills which would enable them to solve projects in the real world.

Sustainability should be taken into account during the initial stages of procurement as well as maintenance stages.

Students will develop skills in the use of project tools which allow for more effective tracking of project progress. The content deals with concepts and definitions, organisation and staffing the project office and team, planning, scheduling, cost control methods, risk management as well as contracts and procurement. Through a combination of formal learning, individual and

group projects, participants will develop a full understanding of the leadership and technical capabilities needed for effective project management in multinational organisations.

Brief Schedule and Topics

1. Introduction to the unit and key concepts
2. Project management in a complex global context
3. Engineering projects and sustainable practice.
4. Ethical behaviour within project management
5. Real world engineering problems: Case Studies
6. Project Monitoring and Control
7. Importance of project governance and leadership in the successful completion of projects
8. Project procurement and project close down

Learning Objective

By the end of this course you should be able to:

- Appreciate the nature of project management within the global context.
- Students completing the course will be able to question and test the feasibility of projects.
- Students should be able to identify and analyse key issues relating to projects including the stages of planning, executing, monitoring and control mechanisms employed managing the projects.
- Students completing the course will be able to use the critical path and critical chain methods to plan project delivery.
- Students completing the course will be able to apply their learning in the management of project resources and teams.
- Students completing the course will be able to use a variety of monitoring and financial tools to manage the delivery of quality project outcomes.
- Students completing the course will be able to make planning and delivery decisions based on project risk analysis.
- Students will be able to appreciate the complexity of managing a project within an organisation and through the organisation's changes.
- Outline the key stakeholders and identify methods in handling stakeholder pressure on both a local and international scale.
- Discuss and propose strategies which may be used in effectively communicating with different stakeholders both in written and oral communication.
- Provide strategies to manage and lead a team during the different stages of a project and provide recommendations for resolving conflicts which may arise.
- Discuss the ethical and sustainable theories relevant to practical engineering projects and the frameworks in place.

Requirements

The course is open for postgraduate engineering students or undergraduate engineering students at their final or pre-ultimate year.

Reference Books

Larson E W and Gray C F, *Project Management - The Managerial Process*, McGraw Hill, 6th edition (2014).

Academic journal articles and handouts on specific topics will be used to supplement the textbook and lecture material.

Course materials (including lecture notes, supplementary readings and solutions to assignment questions) are handed out during the class.

Assessments

*Details of assessments will be announced in class.

Assessments in this course include:

Project Drawings (20%)

To be completed in the lecture. Details of this task will be announced in class.

Individual report (30%)

An individual essay for a proposed project is to be developed, more details are to be announced in class, requirements are as follow:

- 5 pages maximum in A4,
- 12 point Times New Roman font
- Single line spacing
- Late submission will attract a penalty of 10% of the total weighting of the assessment task. A 10% deduction applies for EACH late day and the assessment will not be accepted after 5 working days. Extensions will only be granted upon the basis that there is reasonable medical evidence of illness or any other extreme circumstances that the university may place under consideration. Under no circumstances will extensions be granted for work or any other commitments. A request for an extension must formally be submitted to the lecturer in writing prior to the due date, in accordance with the university's assessment policies. Medical certificates or other evidence of extreme misfortune must be submitted through a special consideration form and must contain information that justifies the extension sought.

Group project (group)(35%) + Presentation (group)(15%)

Students will be allocated into groups to complete a group project relating to course topics. They are required to work collaboratively with each other to complete this task and present it to the class through a speech.

A new venture business plan for implementing entrepreneurial activities in a globalised and competitive is to be developed, with:

- 5 pages maximum in A4,
- 12 point Times New Roman font
- Single line spacing
- Late submission will attract a penalty of 10% of the total weighting of the assessment task. A 10% deduction applies for EACH late day and the assessment will not be accepted after 5 working days. Extensions will only be granted upon the basis that there is reasonable medical evidence of illness or any other extreme circumstances that the university may place under consideration. Under no circumstances will extensions be granted for work or any other commitments. A request for an extension must formally be submitted to the lecturer in writing prior to the due date, in accordance with the university's assessment policies. Medical certificates or other evidence of extreme misfortune must be submitted through a special consideration form and must contain information that justifies the extension sought.

Detailed Daily Schedule (TBC)

| Topic (tentative) | Activities | Additional reading materials |
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| Introduction to the unit and key concepts | Introduction; Lecture/seminar; Case Study Development and Communication | Peter Morris, (2013). Reconstructing Project Management Reprised: A Knowledge Perspective. Project Management Journal, Vol. 44, No. 5, 6–23. Turner, J.R., & Müller, R. (2003). On the nature of the project as a temporary organization. International Journal of Project Management, 21(1), pp. 1-8. |
| Project management in a complex global context | Lecture/seminar; Case Studies ; In Class Activities | Ryan J. Orr and W. Richard Scott (2008), 'Institutional Exceptions on Global Projects: A Process Model', Journal of International Business Studies, 39 (4), 562-88 Roger Miller and Brian Hobbs (2005), 'Governance Regimes for Large Complex Projects', Project Management Journal, 36 (3), September, 42-50. |
| Engineering projects and sustainable practice | Lecture/seminar; Case Studies ; In Class Activities | Johnson, A. and Gibson, A. (2014). Sustainability in engineering design. Waltham, MA: Academic Press. |
| Ethical behaviour within project management | Lecture/seminar; Class Presentation (15%) | Whyte, J. and Levitt, R. (2010) Information management and the management of projects. In: Peter W. G. Morris, Jeffrey K. Pinto, Jonas Söderlund (Eds.) (2010) The Oxford Handbook of Project Management. Oxford: Oxford University. Lu, Y., Li, Y., Skibniewski, M., Wu, Z., Wang, R., & Le, Y. (2014). Information and communication technology applications in architecture, engineering, and construction organizations: A 15-year review. Journal of Manage |
| Real world engineering problems: Case Studies | Lecture/seminar; Case Studies ; In-Class Activities; Problem Solving: Project drawings (20%) | Morris, Peter W.G. (1988) Chapter 2: Managing project interface Key Points for Project Success. In: Cleland, D., & Morris, P. W. G. |

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| | | (1988). Project Management Handbook. John Wiley & Sons, US. Davies, A., Gann, D., & Douglas, T. (2009). Innovation in megaprojects: systems integration at London Heathrow Terminal 5. California Management Review, 51(2), 101-125. |
| Project Monitoring and Control | Lecture/seminar; Case Studies ; In Class Activities; Individual report (30%) | Pinto, J. K., & Slevin, D. P. (1987). Critical factors in successful project implementation. IEEE Transactions on Engineering Management, (1), 22-27. Le, Y., Wang, Y., Luo, C., & Peng, Y. (2012). Integration of financial and contract management on the Shanghai Expo Construction Program. Journal of Cons |
| Importance of project governance and leadership in the successful completion of projects | Lecture/seminar; Case Studies; In Class Activities ; Problem Solving: Engineering draft Report | Zeng, S.X., Ma, H.Y., Lin, H., Zeng, R.C., Tam, V.W.Y., 2015. Social responsibility of major infrastructure projects in China. International Journal of Project Management, 33(3), 537–548. Stone, R., 2008. Three Gorges Dam: into the unknown. Science 321, 628–632. |
| Company tour to a selected engineering company (Details to be announced in class) | | |
| Project procurement and project close down | Lecture; Case Studies; In-class activities; Group Project Presentation and Submission (35%) | Brady. T, & Davies, A. (2010). From hero to hubris-reconsidering the project management of Heathrow's Terminal 5. International Journal of Project Management, 28 (2), 151-157. Eisenhardt, K. M. (1989). Building theories from case study research. Academy of management review, 14(4), 532-550. |

Content is subject to change.

Academic Integrity and Policies

[Tongji University Academic Policy](#) for international students makes reference to the Academic Policy for Undergraduates (Issuing on 20th, June 2005) and Academic Policy for Postgraduates.

Academic Integrity

Students are expected to uphold the university's academic honesty principles, which are an integral part of the university's core values and principles. If a student fails to observe the acceptable standards of academic honesty, they could attract penalties and even disqualification from the course in more serious circumstances. Students are responsible for knowing and observing accepted principles of research, writing and any other task which they are required to complete.

Academic dishonesty or cheating includes acts of plagiarism, misrepresentation, fabrication, failure to reference materials used properly and forgery. These may include, but are not limited to: claiming the work of others as your own, deliberately applying false and inaccurate information, copying the work of others in part or whole, allowing others in the course to copy your work in part or whole, failing to appropriately acknowledge the work of other scholars/authors through acceptable referencing standards, purchasing papers or writing papers for other students and submitting the same paper twice for the same subject.

This Academic Integrity policy applies to all students of the Tongji University in all programmes of study, including non-graduating students. It is to reinforce the University's commitment to maintaining integrity and honesty in all academic activities of the University community.

Policy

- The foundation of good academic work is honesty. Maintaining academic integrity upholds the standards of the University.
- The responsibility for maintaining integrity in all the activities of the academic community lies with the students as well as the faculty and the University. Everyone in this community must work together to ensure that the values of truth, trust and justice are upheld.
- Academic dishonesty affects the University's reputation and devalues the degrees offered.
- The University will impose serious penalties on students who are found to have violated this Policy. The following penalties may be imposed:
 - Expulsion;
 - Suspension;
 - Zero marks/ fail grade;
 - Marking down;
 - Re-doing/re-submitting of assignments or reports; and
 - Verbal or written warning.