

1. Course Code

2231

2. Course Title

M11e: Project Management

3. Teacher

ITO, Mamoru

4. Term

Spring 2

5. Course Requirements (Courses / Knowledge for this course) and Important Information

None.

6. Course Overview and Objectives

Today, projects range from software development to the delivery of social services. In this course, students will learn the basic concepts of project management from both a managerial and technical perspective through lectures. They will also learn how to apply the skills required of project managers through group discussions and exercises.

7. Course Outline

- 1 Foundation of project management
- 2 Project environment and work ethics
- 3 Project scope and WBS (Work Breakdown Structure)
- 4 Project estimation
- 5 Stakeholder engagement
- 6 Project scheduling
- 7 Earned value analysis
- 8 Risk analysis
- 9 Project quality
- 10 Project procurement
- 11 Agile approaches
- 12 Effective presentation slides
- 13 Group exercise
- 14 Group exercise
- 15 Presentation of group exercise results
- 16 Term-end examination (multiple-choice and open-book format)

8. Textbooks (Required Books for this course)

None.

9. Reference Books (optional books for further study)

Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK® guide) (7th ed.). Project Management Institute.

10. Course Goals (Attainment Targets)

- (1) Identify the phases of the project management life cycle, including planning, executing, and monitoring and controlling.
- (2) Understand the processes implemented in project management.
- (3) Comprehend basic tools and techniques to manage a project successfully.
- (4) Optimize results while managing the triple constraints: cost, time and scope.
- (5) Demonstrate the principles and practice of team leadership.
- (6) Analyze the ethical issues in the project management.
- (7)
- (8)

11. Correspondence relationship between Educational goals and Course goals

| Educational goals of the school | | | Course Goals |
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| High level ICT skills | Basic academic skills | | (1), (2) |
| | Specialized knowledge and literacy | | (3), (4) |
| Human skill (Tankyu skill) | Ability to continually improve own strengths | | (1), (2), (3) |
| | Ability to discover and resolve the problem in society | Problem setting | (4), (5), (6) |
| | | Hypothesis planning | (4), (5), (6) |
| | | Hypothesis testing | (4), (5), (6) |
| | | Practice | (4), (5), (6) |
| | Fundamental Competencies for Working Persons | Ability to step forward | (5), (6) |
| | | Ability to think through | (4), (5) |
| | | Ability to work in a team | (5) |
| Professional ethics | | | (6) |

12. Evaluation

| Goals | Evaluation method & point allocation | | | | | |
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| | examination | Quiz | Reports | Presentation | Deliverables | Other |
| (1) | ○ | ○ | | ○ | ○ | |
| (2) | ○ | ○ | | ○ | ○ | |
| (3) | ○ | ○ | | ○ | ○ | |
| (4) | ○ | ○ | ○ | ○ | | |
| (5) | ○ | | ○ | ○ | | |
| (6) | ○ | | ○ | ○ | | |
| (7) | | | | | | |
| (8) | | | | | | |
| Allocation | 30 | 30 | 10 | 10 | 20 | |

13. Evaluation Criteria

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| Examination | Multiple-choice exam is used to assess students' understanding and application of the course goals. This is an open-book exam that allows students to bring in their own materials and does not require knowledge of the subject matter. |
| Quiz | Multiple-choice quizzes are used to evaluate the students' comprehension and application of the content in each class. As this is an open-book test, no knowledge is required. |
| Reports | Evaluate in terms of the appropriateness of the description, the structure of the report, the validity of the argument, and the originality of the proposal. |
| Presentation | Evaluate the content of the presentation in terms of its purposefulness, the structure of the presentation, the relevance of the argument, and the originality of the proposal. |
| Deliverables | Evaluate the diagrams and documents created in terms of relevance, clarity, and objectivity. |
| Other | |

| 14. Active Learning | | |
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| Hourly percentage of active learning within the whole class time | | 40% |
| 1 | Active learning such as problem solving assignment using the knowledge and skills acquired in class. | All the time |
| 2 | Active learning such as group works and discussions. | All the time |
| 3 | Outcome presentations and feedbacks. | Sometimes |
| 4 | Students actively make decisions on how the class should be conducted. | Not at all |

15. Notes

- This course provides the course materials on Moodle/Google Classroom.
- You may attend classes online, but are encouraged to attend in person if possible.
- If you are taking a class online, you may be asked to turn on your video during class.
- Portions of classes are recorded and available on-demand during the course.

16. Course plan

(Notice) This plan is tentative and might be changed at the time of delivery

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| Lesson 1: Foundation of project management | (Lecture, 45 min. Exercise, 45 min.) |
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This lesson provides students with the essential concepts of project management from both a theoretical and applied perspective.

- Definitions of project, process, and program
- Portfolio management and strategy
- Project manager and team

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| Lesson 2: Project environment and work ethics | (Lecture, 45 min. Exercise, 45 min.) |
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Students learn about organizational influences on projects, support systems for project managers, and work ethics.

- Vision, mission, and values
- Strategic planning
- organizational structures
- Work ethics and code of conduct

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| Lesson 3: Project scope and WBS | (Lecture, 45 min. Exercise, 45 min.) |
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Every project starts with a project charter that defines the scope of the project. Understand how to start a project, how to manage the scope, and how to create a WBS.

- Project Charter and Project Management Plan
- Integrated Change Management
- WBS structuring and organization
- Work Packages (WP)

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| Lesson 4: Project estimation | (Lecture, 45 min. Exercise, 45 min.) |
| <p>The project team estimates project duration and costs for scheduling and budgeting.</p> <ul style="list-style-type: none"> - Analogous estimating, parametric estimating, three-point estimating, and bottom-up estimating - Schedule baseline and cost baseline - Contingency reserve and management reserve | |
| Lesson 5: Stakeholder engagement | (Lecture, 45 min. Exercise, 45 min.) |
| <p>Stakeholders can affect the project or perceive themselves to be affected by the project. Project teams involve them in projects to get better support.</p> <ul style="list-style-type: none"> - Identification of stakeholders - Stakeholder analysis - Salience model - Four opportunities and five levels of engagement | |
| Lesson 6: Project scheduling | (Lecture, 45 min. Exercise, 45 min.) |
| <p>Project managers develop project plans by analyzing network diagrams.</p> <ul style="list-style-type: none"> - Forward and backward passes - Critical path method - Arrow diagramming method (ADM) and precedence diagramming method (PDM) - Lags and leads - Fast-tracking and crashing | |
| Lesson 7: Earned value analysis (EVA) | (Lecture 45 min, Exercise, 45 min.) |
| <p>EVA is the primary cost and schedule control tool. It allows us to predict project performance based on past performance.</p> <ul style="list-style-type: none"> - Planned Value (PV), Earned Value (EV), and Actual Cost (AC) - Schedule Variance (SV) and Cost Variance (CV) for Variance Analysis - Performance Indexes: Schedule Performance Index (SPI) and Cost Performance Index (CPI) - Estimate to Complete (ETC) and Estimate at Completion (EAC) | |
| Lesson 8: Risk analysis | (Lecture 45 min, Exercise, 45 min.) |
| <p>Because every project is unique, there is a risk of unforeseen situations.</p> <ul style="list-style-type: none"> - Risk breakdown structure (RBS) - Qualitative/quantitative risk analyses - Risk probability and probability impact matrix - Five alternative strategies for threats and opportunities | |
| Lesson 9: Project quality | (Lecture 45 min, Exercise, 45 min.) |
| <p>Meeting quality expectations is one of the key success factors in a project. But what is quality? Students will understand the concept of quality and how to manage it.</p> <ul style="list-style-type: none"> - Quality and grade - Ishikawa's 7 Basic Tools of Quality - Cost of quality - Control chart | |

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| Lesson 10: Project procurement | (Lecture 45 min, |
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Exercise, 45 min.)

Procurement is to purchase or acquire the product, services, or results needed from outside of the project team. It includes legal, binding, and penalty point of view.

- Types of contracts and risks
- Source selection method
- Types of bid documents
- Make-or-buy decisions

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| Lesson 11: Agile approaches | (Lecture 45 min, |
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Exercise, 45 min.)

In recent years, the number of high-uncertainty projects has increased. Agile approaches have emerged to explore feasibility in short cycles and to adapt quickly based on feedback. This unit provides an overview of the characteristics and practices of an agile approach.

- Introduction to Agile
- Characteristics of project life cycles
- Implementing agile

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| Lesson 12: Effective presentation slides | (Lecture 45 min, |
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Exercise, 45 min.)

In a project, there are many opportunities to make presentations to stakeholders, and you will learn how to create effective presentation slides.

- Presentation difficulties
- Basic rules
- Design basics and principles
- Graphs and tables

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| Lesson 13 - 14: Group exercise | (Exercise, 180 min.) |
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Students will create a hypothetical problem-solving project, develop a project plan using the methods learned in class, and present it at the kick-off meeting.

1. Form a group of 3-4 people
2. Decide on the theme (problem) to be addressed
3. Decide on the assignment of tasks and create a project plan
4. Present the plan at the kick-off meeting

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| Lesson 15: Presentation of group exercise results | (Presentation 90 min.) |
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Each group will have a kick-off meeting using the plans prepared in the group exercises. Please make sure that everyone is able to make a presentation.

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| Term-end examination | (Examination 90 min.) |
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A multiple-choice exam will be administered to assess each student's level of understanding. Your answers to these questions will all be scored by computer.
