# **MS5223: PROJECT MANAGEMENT**

**Effective Term** Semester B 2024/25

# Part I Course Overview

**Course Title** Project Management

Subject Code MS - Decision Analytics and Operations Course Number 5223

Academic Unit Decision Analytics and Operations (DAOS)

**College/School** College of Business (CB)

**Course Duration** One Semester

Credit Units

Level P5, P6 - Postgraduate Degree

Medium of Instruction English

**Medium of Assessment** English

**Prerequisites** MS5313 Managerial Decision Modeling or MS5216 Decision Analytics

Precursors

Nil

**Equivalent Courses** Nil

Exclusive Courses Nil

# Part II Course Details

# Abstract

This course offers a comprehensive introduction to the fundamental concepts of project management, focusing on the critical trade-offs involved in managing projects. Students will gain proficiency in the essential tools and methodologies

designed to aid project managers in various industries. Key topics covered include an overview of project management, detailed project planning, and the use of computerized project management systems. The curriculum also delves into project graphics, pricing and estimation, and cost control strategies. Emphasis is placed on trade-off and risk analysis, concurrent engineering, and integrating Total Quality Management (TQM) techniques with effective project planning. Through a combination of theoretical lessons, practical assignments, real-world projects, and case studies, students will develop the skills necessary to apply project management concepts and tools effectively, preparing them to handle complex projects and drive successful outcomes in their professional careers.

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Make informed decisions on project portfolios by considering strategic goals, financial impacts, and resource allocation.	25		x	
2	Create comprehensive project plans that ensure timely and cost-effective completion, while upholding quality and scope, and exhibit expertise in project monitoring, risk management, and communication management	25		X	
3	Recognize the critical role of the project management office in project success and acknowledge the need to balance both technical and socio-cultural aspects of project management.	20	x		
4	Utilize contemporary project management software, such as Microsoft Project, to efficiently manage various project stages and apply spreadsheet models as decision support tools in project management.	30			x

#### Course Intended Learning Outcomes (CILOs)

# A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

# A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

# A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

# Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture	Engage in interactive lectures to understand the foundational theories and principles of project management, including strategic decision-making for project portfolios and the role of the project management office. Participate in discussions on project planning methodologies, risk management, and communication management to develop a comprehensive understanding of these concepts.	1, 2, 3, 4	

2	Deerdien		1 2 2 4	
2	Peer discussion		1, 2, 3, 4	
		exercises using project		
		management software,		
		such as Microsoft		
		Project, to gain hands-on		
		experience in managing		
		different stages of a		
		project and applying		
		decision support tools.		
		Work on individual		
		and group exercises that		
		challenge you to create		
		project plans, perform		
		risk assessments, and		
		develop cost control		
		strategies.		
		Analyze real-world		
		case studies to identify		
		best practices and		
		common pitfalls in		
		project management.		
		encouraging critical		
		thinking and application		
		of theoretical knowledge		
		to practical scenarios		
		Prepare and present		
		reports on case studies.		
		demonstrating your		
		ability to synthesize		
		information make		
		informed decisions		
		and propose innovative		
		solutions to project		
		management challenges		
		management chaneliges.		

#### Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Exercises	1, 2, 4	30	
2	Case studies and report	1, 2, 3	20	

#### Continuous Assessment (%)

50

```
Examination (%)
```

50

# **Examination Duration (Hours)**

2

#### Assessment Rubrics (AR)

# Assessment Task

Exercises (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

# Criterion

The accuracy and completeness of the project plans, risk assessments, and cost control strategies produced using the software tools.

# Excellent

(A+, A, A-) Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.

#### Good

(B+, B, B-) Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.

# Fair

(C+, C, C-) Student who is profiting from the university experience; understanding of the subject; ability to develop solutions to simple problems in the material.

#### Marginal

(D) Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.

#### Failure

(F) Little evidence of familiarity with the subject matter; weakness in critical and analytic skills.

#### Assessment Task

Case studies and report (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

# Criterion

The depth and insightfulness of the analysis and the innovativeness and feasibility of the proposed solutions in the report.

# Excellent

(A+, A, A-) Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.

#### Good

(B+, B, B-) Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.

# Fair

(C+, C, C-) Student who is profiting from the university experience; understanding of the subject; ability to develop solutions to simple problems in the material.

# Marginal

(D) Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.

# Failure

(F) Little evidence of familiarity with the subject matter; weakness in critical and analytic skills.

# Assessment Task

Examination (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

# Criterion

The accuracy and thoroughness of the responses demonstrating understanding and application of project management concepts and methodologies.

# Excellent

(A+, A, A-) Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.

# Good

(B+, B, B-) Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.

# Fair

(C+, C, C-) Student who is profiting from the university experience; understanding of the subject; ability to develop solutions to simple problems in the material.

# Marginal

(D) Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.

# Failure

(F) Little evidence of familiarity with the subject matter; weakness in critical and analytic skills.

# Assessment Task

Exercises (for students admitted from Semester A 2022/23 to Summer Term 2024)

# Criterion

The accuracy and completeness of the project plans, risk assessments, and cost control strategies produced using the software tools.

# Excellent

(A+, A, A-) Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base

# Good

(B+, B) Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.

# Marginal

(B-, C+, C) Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.

# Failure

(F) Little evidence of familiarity with the subject matter; weakness in critical and analytic skills.

# Assessment Task

Case studies and report (for students admitted from Semester A 2022/23 to Summer Term 2024)

# Criterion

The depth and insightfulness of the analysis and the innovativeness and feasibility of the proposed solutions in the report.

# Excellent

(A+, A, A-) Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.

# Good

(B+, B) Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.

# Marginal

(B-, C+, C) Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.

# Failure

(F) Little evidence of familiarity with the subject matter; weakness in critical and analytic skills.

# Assessment Task

Examination (for students admitted from Semester A 2022/23 to Summer Term 2024)

# Criterion

The accuracy and thoroughness of the responses demonstrating understanding and application of project management concepts and methodologies.

# Excellent

(A+, A, A-) Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.

# Good

(B+, B) Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.

# Marginal

(B-, C+, C) Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.

# Failure

(F) Little evidence of familiarity with the subject matter; weakness in critical and analytic skills.

# Part III Other Information

# **Keyword Syllabus**

# An Overview of Project Management

The scope of project management. Defining project success. Defining the project manager's role; Defining the functional manager's role; Defining the Executive's role. The downside risk of project management. Classification of projects. Deferring views of project management. Concurrent project management concept. TQM in project management.

# Management Issues

Organizing and stuffing for project management. Project management bottlenecks. Effective time management. Managing the conflicts. Performance measurement. R&D project management. Predicting project success. Project management effectiveness.

# Project Planning

Project specifications. Milestone schedules. Work breakdown structure. The planning cycle. Master production scheduling. Total project scheduling. Estimating activity time. Total PERT/CPA planning. Crash times. Alternative PERT/CPA models.

# Computerized Project Management

Computerized project management. Project software evaluation.

# Project Graphics

Bar (Gantt) chart. Other conventional project presentation techniques. Logic diagrams/network.

Pricing and Estimation

Pricing process. Pricing out the work. The pricing review procedure. Systems pricing. Estimating pitfalls. Estimating high-risk projects. Life-cycle costing.

Cost Control

The operating cycle. Cost account codes. Budgets. Variance and earned value. Cost control problems.

Trade-off and Risk Analysis in Project Management

Methodology of trade-off analysis. Industry trade-off preferences. Defining risk. Risk management methodology (risk assessment, risk analysis, risk handling).

Concurrent Engineering in Project Management

Understanding concurrent engineering. Project planning. Creeping Scope. Project management guidelines.

Merging Total Quality Management Techniques with effective Project Planning

Defining quality. The quality movement. The Taguchi approach. ISO 9000. The cost of quality. The seven quality control tools.

# **Reading List**

# **Compulsory Readings**

	Title
1	Erik W. Larson, Clifford F. Gray, Project management: the managerial process latest edition 2014, NY: McGraw-Hill Education, New York
2	Eliyahu M. Goldratt, Critical Chain, latest edition, North River Press, Inc., MA 01230.
3	Kerzner, H., Project management: a systems approach to planning, scheduling and controlling latest edition, John Wiley & Sons, Inc.

# **Additional Readings**

	Title
1	Project Management Institute, http://www.pmi.org/
2	Hong Kong Chapter: http://www.pmi.org.hk/
3	MS Project 2007 video tutorials: http://www.mhhe.com/business/ods/gray4e/Tutorials/VideoTutorials2007.html
4	International Journal of Project Management: http://www.elsevier.com/wps/find/ journaldescription.cws_home/30435/description%23 description