



COURSE OUTLINE

Course Number IST 259	Course Title Project Management	Credits 3
Hours: lecture/Lab/Other 2/2	Co- or Pre-requisite IST 209	Implementation sem/year Fall/ 2021

Catalog description (as it appears in 2014-2015 edition):

[Note: All revisions to the course description in the catalog require the submission of a memo to the Curriculum Committee.]

IST 259 is for students and working professionals alike. Whether preparing for the PMP exam or just looking to optimize project management skills, this course provides detailed explanations for over 100 essential tools described in the Project Management skills. Institute's *A Guide to the Project Management Body of Knowledge (PMBOK Guide) Sixth Edition*. Going beyond theory and concept to real-world practice, these tools and techniques are the "how" of effective project management; from planning, to implementation, to oversight, and beyond, all phases of the project are represented here to help you more effectively apply critical *PMBOK* concepts. Comprehensive examples illustrate real-world implementation, and detailed discussion provides expert guidance for both new and experienced project management professionals.

Required texts/other materials:

A Project Manager's Book of Tools and Techniques
Cynthia Snyder Dionisio
ISBN: 978-1-119-42484-0

Revision date:

Spring 2021

Course coordinator: (Name, telephone number, email address)

Name: Queen E. Okike, Ed.D.
Phone Number: (609) 570- 3464
Email: Okikeq@mccc.edu
Website: mccc.edu/~okikeq

Information resources: (Describe the primary information resources that support the course, including books, videos, journals, electronic databases, websites, etc. To request new materials for your course, use the library request form at: www.mccc.edu/student_library_course_form.shtml)

Other learning resources: (Describe any other student learning resources that are specific to this course, including any special tutoring or study group support, learning system software, etc.)

Computers, Microsoft Office

Course Competencies/Goals: [List the most important 5-8 overall student learning outcomes for your course. Course-level student learning outcomes (or Course Competencies/Goals) are statements that describe the specific, measurable knowledge, skills, and/or values that the student is expected to demonstrate, perform or exhibit after completion of the course. Student learning outcomes should focus on what the students will learn (rather than what the instructor will teach) and must include verbs (explain..., demonstrate..., analyze...) that reflect lower-order and higher-order learning goals.]

The student will be able to:

1. Explain project management group processes.
2. Analyze and adopt PMI-endorsed forms for documenting every process group.
3. Customize each form to suit each project's specific needs.
4. Organize project data and implement a repeatable management process.
5. Demonstrate PMBOK® Guide implementation at any level of project management Experience.

Course-specific Institutional Learning Goals (ILGs)/General Education Goals.

Institutional Learning Goal 1. Written and Oral Communication in English. Students will communicate effectively in both speech and writing.

Institutional Learning Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Institutional Learning Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Institutional Learning Goal 10. Information Literacy: Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Units of study in detail.

Unit I Data Gathering Techniques

Learning Objectives

The student will be able to...

- Explain Benchmarking and brainstorming techniques in data collection (**Course Competencies 1 ILG Goals 1 & 10**).
- Explain check sheets and checklists in data collection (**Course Competencies 1 ILG Goals 1 & 10**).
- Discuss focus groups (**Course Competencies 1 ILG Goals 1 & 10**).
- Explain statistical sampling of data (**Course Competencies 1 ILG Goals 1 & 10**).

Unit II Data Analysis Techniques

Learning Objectives

The student will be able to...

- Discuss alternatives analysis (**Course Competencies 1& 2 ILG Goals 1 & 10**).
- Explain Cost Benefit Analysis, Cost of Quality, Decision Tree and Earned Value Analysis (**Course Competencies 1& 2 ILG Goals 1 & 10**).
- Explain Influence Diagrams, Make-or-Buy Analysis, Performance Index, Regression Analysis (**Course Competencies 1, 2 & 3 ILG Goals 1 & 10**).
- Discuss Reserve Analysis, Root Cause Analysis, Sensitivity Analysis, Stakeholder Analysis and SWOT Analysis (**Course Competencies 1, 2 & 3 ILG Goals 1, 2, 4 & 10**).
- Discuss Technical Performance Analysis, Variance Analysis, What-If Analysis (**Course Competencies 1, 2 & 3 ILG Goals 1, 2, 4 10 & 11**)

Unit III Data Representation

Learning Objectives

The student will be able to...

- Explain Data Analysis Techniques, Data Representation Techniques and Cause-and-Effect (**Course Competencies 1, 2 & 3 ILG Goals 1, 2, 4 10 & 11**)
- Discuss Control Charts, Flowcharts, and Histograms (**Course Competencies 1, 2 & 3 ILG Goals 1, 2, 4 10 & 11**)
- Illustrate Logical Data Model , Mind Mapping, Probability and Impact Matrix (**Course Competencies 1 ILG Goals 1 & 10**).
- Discuss Resource Breakdown Structure, Responsibility Assignment Matrix, Scatter Diagrams, and Stakeholder Mapping (**Course Competencies 1, 2 & 3 ILG Goals 1, 2, 4 10 & 11**)

Unit IV Estimating

Learning Objectives

The student will be able to...

- Discuss Estimating Techniques, Analogous Estimating, Bottom-Up Estimating (**Course Competencies 1, 2 & 3 ILG Goals 1, 2, 4 10 & 11**)
- Explain Estimate at Completion, Estimate to Complete, Parametric Estimating (**Course Competencies 1, 2 & 3 ILG Goals 1, 2, 4 10 & 11**)
- Discuss To-Complete Performance Index, Three-Point Estimating, Variance at Completion (**Course Competencies 1, 2 , 3, 4 & 5 ILG Goals 1, 2, 4 10 & 11**)

Unit VI Interpersonal and Team Skills and Other Techniques

Learning Objectives

The student will be able to...

- Discuss Interpersonal and Team Skills, Conflict Management, and Decision Making (**Course Competencies 1, 2 , 3, 4 & 5 ILG Goals 1, 2, 4 10 & 11**)
- Explain Nominal Group Technique, Problem Solving (**Course Competencies 1, 2 , 3, 4 & 5 ILG Goals 1, 2, 4 10 & 11**)
- Discuss Context Diagram, Critical Path Method, Funding Limit Reconciliation, and Inspection (**Course Competencies 1, 2 , 3, 4 & 5 ILG Goals 1, 2, 4 10 & 11**)
- Explain Leads and Lags, Precedence Diagramming Method, Prompt Lists and Prototypes (**Course Competencies 1, 2 , 3, 4 & 5 ILG Goals 1, 2, 4 10 & 11**)
- Discuss, Resource Optimization, Rolling-Wave Planning, and Schedule Compression (**Course Competencies 1, 2 , 3, 4 & 5 ILG Goals 1, 2, 4 10 & 11**)

Evaluation of student learning:

Projects	30%
Tests: Chapters 1-13	30%
Midterm Examination	15%
Final Project	10%
Final Examination	15%
Total	100%

Academic Integrity Statement: See <http://mlink.mccc.edu/omb/OMB210.pdf>]