COURSE OUTLINE

Course Number	Course Title	Credits
IST 209	**Project Management Concept**	**3**

Hours:	Co- or Pre-requisite	Implementatio
lecture/Lab/Other	**IST 102**	**Fall/2021**
2/2		

Catalog description :

Cultivates strategies to orchestrate carefully designed action plans to complete projects successfully, often incorporating complex, dynamic and changing requirements. Explores the management of technology, people, and change to achieve goals, reach targets, and deliver the project on time and within budget. *2 lecture/2 laboratory hours*

Is course New, Revised, or Modified? Revised

Required texts/other materials:
Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 12th Edition by Kerzner

Revision date: **Course coordinator:**   (Name, telephone number, email address)
Spring 2019

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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)

Course Competencies/Goals:
The student will be able to:

1. Explain organizational structures and project management functions.
2. Demonstrate how to control costs and manage risk.
3. Analyze trade-offs between cost and risk.
4. Examine different methods used for planning, scheduling, QA, and more.
5. Explain how to work effectively with customers and stakeholders from around the globe.

Course-specific General Education Knowledge Goals and Core Skills.

General Education Knowledge Goals
Goal 1. Communication. Students will communicate effectively in both speech and writing.
Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems..
Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.
Goal 5. Social Science. Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.
Goal 8. Diversity. Students will understand the importance of a global perspective and culturally diverse peoples.
Goal 9. Ethical Reasoning and Action. Students will understand ethical issues and situations.

MCCC Core Skills
Goal A. Written and Oral Communication in English. Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.
Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.
Goal C. Ethical Decision-Making. Students will recognize, analyze and assess ethical issues and situations.
Goal D. 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.
Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.
Goal F. Collaboration and Cooperation. Students will develop the interpersonal skills required for effective performance in group situations.
Goal G. Intra-Cultural and Inter-Cultural Responsibility. Students will demonstrate an awareness of the responsibilities of intelligent citizenship in a diverse and pluralistic society, and will demonstrate cultural, global, and environmental awareness.

Units of study in detail.
Unit I   Introduction to Project Management
Learning Objectives
The student will be able to…

- Explain Project Management **(Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Defining Project Success (Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)
- Explain Trade-Offs and Competing Constraints (Course Competencies 2& 3; Gen Ed Goals 1 & 4; Core Skill A, D & E.)
- Illustrate Differing Views of Project Management (Course Competencies 2,3 &4; Gen Ed Goals 1,4 & 8; Core Skill A, D & E.)
- Discuss Public-Sector Project Management (Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)
- Explain International Project Management (Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D , E&F.)

Unit II   Organizational Structures
Learning Objectives
The student will be able to

- Analyze Organizational Work Flow **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Traditional (Classical) Organization **(Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**

- Discuss Pure Product (Projectized) Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Matrix Organizational Form **(Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Modification of Matrix Structures **(Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Discuss The Strong, Weak, or Balanced Matrix **(Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Describe Project Management Offices (**Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain The Process In Selecting the Organizational Form **(Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Strategic Business Unit (SBU) Project Management (**Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Discuss Transitional Management (**Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Seven Fallacies that Delay Project Management Maturity **(Course Competencies 1; Gen Ed Goals 1&4; Core Skill A, D & E.)**

Unit III   Organizing and Staffing the Project Office and Team
   Learning Objectives
   The student will be able to…
- Discuss Selecting the Project Manager: an Executive Decision Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Skill Requirements for Project and Program Managers Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Define Special Cases in Project Manager Selection Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Describe Today's Project Managers Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- List Duties and Job Descriptions Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain the Organizational Staffing Process Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Describe the Functional Team Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Draw the Project Organizational Chart Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain the Process in Selecting the Project Management Implementation Team Organization **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**

Unit IV   Management Functions
   Learning Objectives
   The student will be able to…

- Explain Controlling (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Describe Directing **(Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Project Authority (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Illustrate Interpersonal Influences (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- List Barriers to Project Team Development Management Policies and Procedures (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Discuss Human Behavior (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**

Unit V   Communications Management
Learning Objectives

The student will be able to…

Explain Modeling the Communications Environment (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Discuss The Project Manager as a Communicator (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Discuss Project Review Meetings (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

List Project Management Bottlenecks (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Explain Active Listening (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

List Communication Traps (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Discuss Project Problem Solving (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Explain Process of Brainstorming (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Depict Predicting the Outcome of a Decision (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Explain Process of Facilitation (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Unit VI   Conflicts
Learning Objectives
The student will be able to…

- Explain The Conflict Environment (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- List Types of Conflicts (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Conflict Resolution (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Describe The Management of Conflicts (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Conflict Resolution Modes (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Superior, Subordinate, and Functional Conflicts (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Unit VII   Planning
Learning Objectives
The student will be able to…

- Discuss General Planning (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Life-Cycle Phases (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- List Life-Cycle Milestones (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Kickoff Meetings (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Illustrate Establishing Project Objectives (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain The Statement of Work (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Describe Project Specifications (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Portray Work Breakdown Structure (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Webs Decomposition Problems (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Work Breakdown Structure Dictionary (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Project Selection (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Describe Management Cost and Control System (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Work Planning Authorization (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Depict Stopping Projects (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Project Plan (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain the Project Charter (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Project Baselines (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Enterprise Project Management Methodologies (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

- Explain Project Audits (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Unit VIII   Network Scheduling Techniques
Learning Objectives
The student will be able to…
- Explain Network Fundamentals (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Graphical Evaluation and Review Technique (GERT) (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Dependencies (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Portray Slack Time (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Network Preplanning (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Total Pert /Cpm Planning (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Precedence Networks (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Lag (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss the Myths of Schedule Compression (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Project Management Software (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Unit IX   Pricing and Estimating
Learning Objectives
The student will be able to…
- Explain Global Pricing Strategies (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- List Types of Estimates (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Pricing Process (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Describe Organizational Input Requirements (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Labor Distributions (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Overhead Rates (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Materials/Support Costs (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Pricing Out the Work (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Systems Pricing (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Project Risks (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Life-Cycle Costing (LCC) (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain The Time Value of Money and Discounted Cash Flow (DCF) (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Net Present Value (NPV) (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Internal Rate of Return (IRR) (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Comparing Irr, Npv, and Payback (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Risk Analysis (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Portray Capital Rationing (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Project Financing (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Unit X   Cost Control
Learning Objectives
The student will be able to…
- Explain Control (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss the Operating Cycle (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- List Cost Account Codes (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Budgets (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain The Earned Value Measurement System (EVMS) (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

- Explain Variance and Earned Value (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Illustrate The Cost Baseline (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Justifying the Costs (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Cost Overrun Dilemma (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Recording Material Costs Using Earned Value Measurement (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Material Variances: Price and Usage (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Summary Variances (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Status Reporting (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Cost Control Problems (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Unit XI   Risk Management
Learning Objectives
The student will be able to…

- Explain Definition of Risk (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Tolerance for Risk (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Define Risk Management (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Certainty, Risk, and Uncertainty (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Risk Management Process (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Plan for Risk Management (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Risk Identification (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Risk Analysis (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Qualitative Risk Analysis (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Quantitative Risk Analysis (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Plan for Risk Response (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain How to Monitor and Control Risks (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- List Some Implementation Considerations (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain the Use of Lessons Learned (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

- Explain Dependencies between Risks (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss the Impact of Risk Handling Measures (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Risk and Concurrent Engineering (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

Unit XII   Contract Management
Learning Objectives
The student will be able to…

- Define Procurement **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain How to Conduct Procurements: Request Seller Responses **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Conduct Procurements: Select Sellers **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Types of Contracts **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Discuss Incentive Contracts **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Describe Contract Type versus Risk **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)
- Explain Contract Administration **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.**)

- Explain Contract Closure **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Portray Using a Checklist **Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**

<u>Unit XIII</u>   **Quality Management**
Learning Objectives
The student will be able to…
- Define of Quality (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain the Quality Movement (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Illustrate Quality Management Concepts (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain the Cost of Quality (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- List Seven Quality Control Tools (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Discuss Acceptance Sampling (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Implementing Six Sigma (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Quality Leadership (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Discuss Responsibility for Quality (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Discuss Quality Circles (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**
- Explain Total Quality Management (Tqm) (**Course Competencies 1 & 3; Gen Ed Goals 1&4; Core Skill A, D & E.)**

Evaluation of student learning:

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

<u>Academic Integrity Statement:</u> [Include a statement affirming the college's Academic Integrity policy and any specific implications for the course. See http://mlink.mccc.edu/omb/OMB210.pdf]