Construction Project Administration

Code	Credit Hours
CEM-801	3-0

Course Description:

This course covers best practices in project administration, from understanding contracts to meeting facilitation, field inspections, paperwork completion, and reporting. Students will learn to access and interpret essential documentation for project success. Upon completion, students will describe critical elements of pre-construction operations, explain construction planning and scheduling inputs, monitor work progress, and diagram work activities. They will track activity completion times, outline logical sequences for work items, compare basic construction contract variations, and describe quality control procedures. Students will also handle changes, claims, and disputes, manage documents for project closeout, and explain final payment and lien waiver documents. This course equips students with the skills to manage construction projects efficiently and effectively.

Text Books:

1. Project Management Institute. A Guide to the Project Management Body of Knowledge (PMBOK® Guide). 6th ed. Newtown Square, PA: Project Management Institute, 2017.
2. Kerzner, Harold (2000). Project Management: A System Approach to Planning, Scheduling, and Controlling. John Wiley & Sons, Inc.
3. Larson, E., & Gray, C. (2017). *Project management: The managerial process* (7th ed.). McGraw-Hill Education.
4. Levy, M. Sidney. (2000). Project Management in Construction. McGraw-Hill.

Prerequisites:

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ASSESSMENT SYSTEM FOR THEORY

Quizzes	10%
Assignments	10%
Mid Terms	25%
Term Project	10%
ESE	45%

Teaching Plan

Week No.	Topics	Learning Outcome
1-2	Project Management Terms	What is a Project, What is Project Management, What is Program Management, Project Management Office What is Portfolio Management, Operations Management What is the value of the project, Projects enable changes, Phases and Deliverables, Project Life Cycle Project Governance, Stakeholders, Roles of a Project manager, What are milestones, Project Bosses Product vs Project Management, Areas of a project Project Management Approaches, Organizational Structures, Risk vs. Issues vs. Assumptions vs. Constraints, Project Constraints, Emotional Intelligence, Leadership vs. Management.
3-4	Project Management Principles	Introduction to PM Principles, PMI Code of Ethics and Professional Conduct, The 12 Principles of project management Stewardship, Team, Stakeholders, Value, Systems Thinking, Leadership, Tailoring, Quality, Complexity Risk, Adaptability and Resiliency, Change
5-6	Project Management Domains	Project Performance Domains intro, Stakeholder Performance Domain, Team Performance Domain Development Approach Life Cycle Performance Domain, Planning performance domain, Work performance domain, Delivery Performance Domain Measurement Performance Domain, Uncertainty Performance Domain
7-8	Introduction to Traditional/ Predictive Project Management	Introduction to Traditional Project Management Introduction to the process groups, 49 Process of Traditional Project Management, 5 Process Groups Processes ITTO's, Enterprise Environmental Factors Organization Process Assets, Project Documents Project Management Plan, Expert Judgement Data Gathering, Analysis, Representation, and Decision Making, Interpersonal and Team Skills Meetings, PMIS, Change Request, Work Performance Data, Info and report, Updates
9	**MID TERM EXAM**	

10-14	Processes to Manage a Traditional/ Predictive Project	Develop Project Charter, Identify stakeholder, Develop Project Management Plan, Plan Scope Management, Collect Requirements, Project Scheduling Plan Quality Management, Plan Resources Management, Estimate Activity Resources Plan Communication Management, Plan Risk Management, Identify Risks, Perform Qualitative Risk Analysis, Preform Quantitative Risk Analysis, Plan Risk Response Plan Procurement Management, Plan Stakeholder Engagement, Executing, Direct and manage Project work, Manage Project Knowledge, Manage Quality, Acquire Resources, Develop Team OSCAR Model, Drexler Sibbet Team Model, Manage Team, People Management Terms, MBTI, Project Communications, Implement Risk Responses Conduct Procurements, Manage Stakeholder Engagement, End of Executing Intro to Monitoring and Controlling, Monitor and Control Project Work, Perform Integrated Change Control, Validate Scope, Control Scope, Schedule Cost Earned Value Management Intro Control Quality, Control Resources, Monitor Communication, Monitor Risk, Control Procurements Monitor Stakeholder Engagement, Close Project or Phase
15-17	Agile Project Management Methods and Delivery	What is agile, Agile vs. Traditional PM, Agile Benefits Inverting the triangle, Agile Manifesto, Agile Manifesto Values, Individuals and interactions over processes and tools Working software over comprehensive documentation, Customer collaboration over contract negotiation, Responding to change over following a plan, Agile Guiding Principles, Agile Methods, Agile Process Scrum, Scrum Activities, Scrum Artifacts, Extreme Programming, XP Roles, XP Practices Basic Terminology review, Lean Development, Kanban Development, Other agile methods, Agile declaration of Interdependence, Agile mindset, Leading Effectively Value-Driven Delivery, Early Value Delivery, Reduce

		Waste, Assessing Value - Financial metrics, Accounting on agile projects, Key Performance Indicators, Regulatory Compliance Risk Management, How Customers Conduct Value Prioritization, Different Prioritization Techniques, Kano Analysis, Delivering Value Incrementally Minimal Viable Product, Tools for Agile Projects, Limit WIP, Cumulative Flow Diagrams, Agile Contracting Verifying and Validating