Course Title: Project Management **(Elective Course)**

Course Code: OTM-843

Objectives: Our graduates will develop specialized knowledge of the field.

- Our students will be able to analyze the key concepts in the field.
- To enable graduates to adopt a global mindset and develop the ability to compare issues from global and local context.
- To teach students to communicate effectively.
- To ensure students understand the value of ethics in research and adhere to ethical standards while conducting research.

Learning Outcomes:

Upon completion of this course, the student should be able to:

- Describe the generally recognized framework and good practices of project management within the frameworks of the project management lexicon.
- Analyze organizational goals and projects through multiple techniques such as capacity planning, scheduling and financial management.
- Deliver a well-formed presentation to effectively communicate the topic of research.
- Synthesize a well-organized and professional document with appropriate tools.

Contents:

Introduction to Project Management

Project Lifecycle & Organizational Project Management

Project Scope Management: Designing work; breakdown structures (WBS); WBS control; methodologies Project Integration; Project Charter; Teams & Group decision making.

Project Portfolio Management: Brainstorming Methods; AHP; Payback methods & NPV; Breakeven analysis; Budgeting & Control

Payback methods & NPV; practice problems; AHP example

Project scheduling: Activity sequencing, Network Techniques, Critical path / Crashing, Fast Tracking

Capacity Planning: Resource Management; Resource Constrained; Scheduling; Project Monitoring & Evaluation Practice Problems.

Project Graphics: MS Project Software Reporting, Bar Chart, Logic Diagrams/Networks

Project Risk Management: Frameworks of risks; Measurement of risk; Risk management Vs disaster management.

Trade-Off Analysis in a Project Environment: Methodology for Trade-off Analysis; Industry Trade-off Preferences; Project Procurement management.

Recommended Book:

- Harold Kerzner, Project Management – ASystem Approach to Planning, Scheduling, and Controlling, 10th ed
- Blank, Tarquin, Anthony, Engineering Economics
- Mario Vanhoucke, Project Management with Dynamic Scheduling
- Anderson & Sweeney, Quantitative Methods for Business, 12th Ed