**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