

ICM 6761 ADVANCED PLANNING, SCHEDULING, AND LOGISTICS

COURSE NUMBER: ICM 6761

NUMBER OF CREDIT HOURS: 3

COURSE DESCRIPTION:

The understanding and solution of complex planning, monitoring, and control problems arising in construction, using both traditional and advanced planning tools. The course will provide students with a comprehensive understanding of the problems associated with the planning and control of a project, and the methods and tools available to ensure an effective solution to these problems. The course concludes with an overview of the future direction of project planning

COURSE LEARNING OUTCOMES:

By completion of the course students will demonstrate an understanding of how to:

- decompose a construction project into its essential components and represent these in a model format suitable for project planning and control;
- apply traditional and advanced planning tools to the planning, monitoring, and control of residential, commercial, industrial, and heavy construction projects;
- deal with risk and uncertainty in the performance of a project;
- model repetitive construction work, and
- optimize a project plan.

COURSE MODULES

- | | |
|--------------------------------------|---------------------------------------|
| 1- Introduction to Project Planning | 2 - Review of Critical Path Method |
| 3 - Risk and Uncertainty in Planning | 4 - PERT Method, |
| 5 - Monte Carlo Method | 6 - Planning Repetitive Work |
| 7 - Construction Simulation | 8 - Space and Other Special resources |
| 9 - Plan Optimization | 10 - Emerging Tools and Methods |