



## APPENDIX A-137

Project Planning and Scheduling using Primavera Contractor, Ver. 4.1, for the Construction Industry by Feigenbaum, L., Publisher: John Wiley and Sons, 2005.

### COURSE AIM

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The course aims at providing the students with the necessary skills to plan, schedule and monitor construction projects.

### SPECIFIC OUTCOMES OF INSTRUCTION

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- The student should be to plan, schedule and monitor construction projects.
- The student should be able to identify various techniques of planning and controlling different resources of construction projects in terms of time, money, and other resources.

### COURSE OUTLINE

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*Week Number 1:* Introduction to planning and scheduling:  
– Basic types of plans and schedules.

*Week Number 2:* Development of activities: Level of detail and work breakdown structure.

*Week Number 3-6:* Scheduling techniques: Bar charting, activity on arrow (AOA), activity on node (AON) and line of balance.

*Week Number 7-8:* Computerized scheduling: Schedule application on computer software.

*Week Number 9:* Probabilistic scheduling: Program evaluation and review technique (PERT).

*Week Number 10:* Resource allocation

*Week Number 11:* Resource leveling: Time leveling of resources for practical considerations, and constrained resource allocation.

*Week Number 12:* Project time reduction: Time-cost trade off.

*Week Number 13:* Project control: Time and cost control of construction projects. Progress monitoring & evaluation, and reporting system.

*Week Number 14:* Cash-flow analysis: Cash flow plans and reports. S - curves.

*Week Number 15:* Introduction to financial management:  
– cash flow projection of construction projects;  
– Cash flow plans and reports and S – curves; and financing costs.

*Week Number 16:* Final Exam.

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COURSE COORDINATOR AND DEMAND

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*Course Coordinator:* Dr. Mohamed Emam.

*Course Demand:* *Required*