

# Practical Construction Scheduling Workshop with Computer Applications - Beginner

Instructed by Yilmaz H. Karasulu, PhD

**Scope:** The workshop covers construction scheduling principles and practical applications using computer software packages. It is designed as an eight-hour instructor-led course to provide background information, knowledge and hands-on experience necessary to effectively use computer software packages as a project management and control tool. Computer applications include baseline schedule development, progress updates, performance analysis and recovery, and data maintenance for projects.

**Workshop Outline:** Modules 1 and 2 provide an introduction to principles of construction scheduling including terminology, contractual definitions, Critical Path Method (CPM) calculations, time-cost trade-offs, and schedule acceleration topics. Modules 3 and 4 focus on software applications for creating and updating construction project schedules. It includes development and update of sample project with analysis of traditional schedule/progress reports.

## MODULE 1. INTRODUCTION AND PRINCIPLES OF SCHEDULING

- a. Scheduling and Planning Principles
- b. CPM Calculations and Resource Planning
- c. Critical Time and Critical Path Behavior
- d. Time/Cost Trade-off

## MODULE 2. SCHEDULE DEVELOPMENT, PROGRESS UPDATE AND ANALYSIS

- a. Float Definitions and Impact
- b. Schedule Acceleration
- c. Schedule Updated and Recovery
- d. Contractual Definitions and Specifications

## MODULE 3. FUNDAMENTALS OF SCHEDULING SOFTWARE

- a. Creating New Projects
- b. Tasks and Relationships
- c. Resource Loading and Cost Control
- d. Communications and Reporting

## MODULE 4. UPDATING AND MAINTAINING SCHEDULES

- a. Updating Schedules
- b. Delays and Data Analysis
- c. Modified /Recovery Schedules
- d. Communications and Reporting

**Instructor:** Dr. Karasulu holds MS and PhD degrees in Civil Engineering from Louisiana State University. He is a faculty member of Department of Construction Science at the University of Texas at San Antonio. Before joining UTSA, he also served as a faculty member and administrator at Louisiana State University and Texas A&M University. Dr. Karasulu is the recipient of several industry and education awards including 2012 Outstanding Educator Award (National) from the AGC Education and Research Foundation. He is a member of AGC San Antonio Chapter and maintains a consulting practice specializing in project planning/scheduling, delay/recovery analysis, computerized estimating, visualization systems and computer applications.

### Schedule:

8:00 am – 12:00 pm  
(Modules 1 and 2)

12:00 pm – 1:00 pm  
(Lunch)

1:00 pm – 5:00 pm  
(Modules 3 and 4)

### Training Materials:

PowerPoint presentations for each module accompanied with the notes (slide handout format) will be handed out to the participants during the workshop. Scheduling software procedure sheets (software cheat sheets) will also be provided for schedule development, organization, update and maintenance functions.

### Computers/Equipment:

Each participant will be provided a laptop with all required software applications during the workshop.

### Workshop Size:

Class limited to 6 participants.

**For more information or to register, contact:**

Erica Bogran  
Phone: 210.349.4921  
[bogran@sanantonioagc.org](mailto:bogran@sanantonioagc.org)