



3 DAY SHORT COURSE

Geotechnical Graduate Student Society
University of California, Davis

Construction of Earth and Rockfill Dams

Instructors: **Lelio H. Mejia, PhD, PE, NAE**
Senior Principal, Geosyntec Consultants

Michael Forrest, PE, GE
Vice President, Senior Consultant, AECOM

DAY 1 - December 4

| Time | SUBJECT | Speaker |
|-------------|--|----------------|
| 8:00 | REGISTRATION | |
| | INTRODUCTION | L. Mejia |
| 9:00 | Welcome and Introduction | |
| 9:10 | Introductory Case Histories | |
| 10:45 | Break | |
| 11:00 | Design Background: Earth and Rockfill Dams | |
| 12:15 | Roles and Responsibilities | |
| 12:30 | Lunch | |
| | FOUNDATION EXCAVATION & PREPARATION | M. Forrest |
| 1:30 | Site Preparation and Foundation Objectives | |
| 2:00 | Dewatering | |
| 2:45 | Break | |
| 3:00 | Foundation Excavation | |
| 4:30 | DISCUSSION | All |
| 5:00 | ADJOURN | |

DAY 2 - December 5

| Time | SUBJECT | Speaker |
|-------------|--|----------------|
| 8:00 | REGISTRATION | |
| | FOUNDATION EXCAVATION & PREPARATION | M. Forrest |
| 8:30 | Foundation Preparation and Treatment | |
| 9:30 | Inspection and Geologic Mapping | |
| 10:00 | Break | |
| 10:15 | Faults in Foundations | |
| | FOUNDATION SEEPAGE CONTROL | M. Forrest |
| 10:45 | Grouting | |
| 11:45 | Lunch | |
| 12:45 | Cutoff Walls | |
| | EMBANKMENT CONSTRUCTION | L. Mejia |
| 1:45 | Specifications Considerations | |
| 1:55 | Test Fills | |
| 2:30 | General Aspects | |
| 2:45 | Break | |
| 3:00 | Core Zone - Earthfill | |
| 4:00 | Filter and Drain Zones | |
| 4:30 | DISCUSSION | All |
| 5:00 | ADJOURN | |

DAY 3 – December 6

| Time | SUBJECT | Speaker |
|-------------|---|----------------|
| 8:00 | REGISTRATION | |
| | EMBANKMENT CONSTRUCTION | L. Mejia |
| 8:30 | Filter and Drain Zones (continued) | |
| 9:30 | Shell Zones, Rockfill, RipRap | |
| 10:15 | Break | |
| 10:30 | QA/QC Testing | |
| | INSTRUMENTATION | M. Forrest |
| 11:00 | Purpose | |
| 11:10 | Types of Instrumentation and Data Recording | |
| 12:00 | Lunch | |
| 1:00 | Installation | |
| | INSPECTION | L. Mejia |
| 1:30 | Documentation | |
| 2:00 | Quality Control and Quality Assurance | |
| 2:15 | Engineering During Construction | |
| 2:30 | DISCUSSION | All |
| 3:30 | CLOSE | |
