



51ST DREDGING ENGINEERING SHORT COURSE PROGRAM

The Short Course will be held as an online (WebEx) meeting due to Covid-19 pandemic. Time zone is Central USA.

MONDAY, JANUARY 10, 2022

| TIME | TOPIC | SPEAKER | AFFILIATION |
|---|--|----------------|---------------------------|
| MODULE 1: INTRODUCTION TO DREDGING AND DREDGE THEORY | | | |
| 8:00 | Welcome and Introduction | R. Mohan | TAMU |
| 8:15 | History of Dredging and Dredging Equipment | R. Mohan | TAMU |
| 9:15 | Fluid Mechanics Review | J. Figlus | TAMU |
| 10:00 | <i>Coffee Break</i> | | |
| 10:15 | Sediment Transport in Pipes | R. Visintainer | Georgia Iron Works |
| 11:15 | Pump Performance, System Head Curves, and Dredge Instrumentation | M. Perlin | TAMU |
| 12:15 | <i>Lunch Break</i> | | |
| MODULE 2: DREDGE TYPES | | | |
| 1:30 | Mechanical Dredging, Residuals, and Resuspension | D. Hayes | USACE ERDC |
| 2:30 | Cutter Suction Dredges | J. Henriksen | Manson Construction |
| 3:15 | <i>Coffee Break</i> | | |
| 3:30 | Small Hydraulic Dredges | W. Wetta | Dredge Supply Corporation |
| 4:15 | Trailing Suction Hopper Dredges | J. Henriksen | Manson Construction |
| 5:00 | <i>Adjourn</i> | | |

TUESDAY, JANUARY 11, 2022

| TIME | TOPIC | SPEAKER | AFFILIATION |
|--|--|---------------------------|--|
| MODULE 3 – DREDGE LAWS, SAFETY CONSIDERATIONS & COST ESTIMATING | | | |
| 8:00 | Basic Dredge Laws – Part I | R. Randall | TAMU |
| 9:00 | Basic Dredge Laws – Part II and Quiz | R. Randall | TAMU |
| 10:00 | <i>Coffee Break</i> | | |
| 10:15 | Considerations in Dredging Safety | R. Ramsdell & M. Davis | Great Lakes Dredge & Dock Hile Group |
| 11:15 | Dredging - Bidding & Cost Estimating Considerations | R. Ramsdell & D. Johanson | Dredging Consultant Great Lakes Dredge & Dock |
| 12:00 | <i>Lunch Break</i> | | |
| MODULE 4 – BEACHES, DUNES AND GEOTECHNICS | | | |
| 1:15 | Beach Nourishment Review | T. Kana | Coastal Science & Engineering, Inc. |
| 2:15 | Dune Management Considerations | J. Figlus | TAMU |
| 2:45 | <i>Coffee Break</i> | | |
| 3:00 | Geotechnical Mechanics: Considerations for Dredging | C. Aubeny | TAMU |
| 3:45 | Applications of Geotechnical Engineering to DMCF Dike Design | C. Aubeny | TAMU |
| 4:30 | Dredging Project Exercise, Group A | R. Randall & R. Mohan | TAMU TAMU |
| | Geotechnical Laboratory Exercise, Group B | C. Aubeny | TAMU |
| 5:30 | <i>Adjourn</i> | | |

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WEDNESDAY, JANUARY 12, 2022

| TIME | TOPIC | SPEAKER | AFFILIATION |
|---|---|--------------------------|----------------------------|
| MODULE 5: MODELING, MEASUREMENT AND MONITORING | | | |
| 8:00 | Fate of Dredged Material in Open Water | J. Gailani | USACE-ERDC |
| 9:00 | Numerical Models for Predicting Fate of Dredged Material | J. Gailani | USACE-ERDC |
| 10:00 | <i>Coffee Break</i> | | |
| 10:15 | Dredge Monitoring | W. Rae | RPS Systems |
| 11:00 | Hydrographic Survey | E. Diurba | USACE – Galveston District |
| 12:00 | <i>Lunch Break</i> | | |
| MODULE 6: DREDGING PROJECT MANAGEMENT | | | |
| 1:15 | Dredging Project Management and Permitting | J. Hudson | USACE – Galveston District |
| 2:00 | Estimating Dredging Costs | R. Randall | TAMU |
| 3:00 | <i>Coffee Break</i> | | |
| 3:15 | Dredging Best Management Practices | R. Mohan | Anchor QEA/TAMU |
| 3:45 | Contract Documents and Construction Management Considerations | R. Mohan | Anchor QEA/TAMU |
| 4:15 | Dredging Project Exercise, Group B | R. Randall & R. Mohan | TAMU TAMU |
| | Geotechnical Laboratory Exercise, Group C | C. Aubeny | TAMU |
| 5:15 | <i>Adjourn</i> | | |

THURSDAY, JANUARY 13, 2022

| TIME | TOPIC | SPEAKER | AFFILIATION |
|---|---|---|--|
| MODULE 7: CONTAMINATED SEDIMENT MANAGEMENT | | | |
| 8:00 | Subaqueous Capping | M. Palermo | M. Palermo Consulting |
| 9:00 | Confined Disposal of Dredged Material | M. Palermo | M. Palermo Consulting |
| 9:45 | <i>Coffee Break</i> | | |
| 10:00 | Contaminated Sediment Management Considerations | R. Mohan | Anchor QEA/TAMU |
| 10:45 | Canadian Experience in Managing Contaminated Sediment | R. Santiago | Environment Canada |
| 11:45 | <i>Lunch Break</i> | | |
| MODULE 8: ENVIRONMENTAL TOPICS AND PANEL | | | |
| 1:00 | Engineering with Nature and Beneficial Uses of Dredged Material | B. Suedel | USACE ERDC |
| 1:45 | Wetland Restoration Using Dredged Material | R. Mohan | Anchor QEA/TAMU |
| 2:30 | USEPA and Environmental Aspects of Dredging | C. Vogt | Craig Vogt Inc. |
| 3:30 | <i>Coffee Break</i> | | |
| 3:45 | Question & Answer Panel | R. Mohan R. Randall M. Palermo R. Santiago B. Suedel C. Vogt | TAMU TAMU M. Palermo Consulting Environment Canada USACE ERDC Craig Vogt Inc. |
| 4:30 | Dredging Project Exercise, Group C | R. Randall & R. Mohan | TAMU TAMU |
| | Geotechnical Laboratory Exercise, Group A | C. Aubeny | TAMU |
| 5:30 | <i>Adjourn</i> | | |

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FRIDAY, JANUARY 14, 2022

| TIME | TOPIC | SPEAKER | AFFILIATION |
|---|--|----------------|-----------------------------|
| MODULE 9: MATERIAL MANAGEMENT, TREATMENT, AND DEWATERING | | | |
| 8:00 | Dredged Material Testing & Evaluation | B. Suedel | USACE ERDC |
| 8:45 | Dredged Material Management Considerations | R. Mohan | Anchor QEA/TAMU |
| 9:30 | Chemical Treatment of Dredged Solids | G. Tichenor | SNF Corporation |
| 10:15 | <i>Coffee Break</i> | | |
| 10:30 | Geotextile Container Systems, Design, & Case Histories | D. Trierweiler | Infrastructure Alternatives |
| 11:15 | Dewatering & Sediment Separation | T. Jamieson | Tri-flo Int'l Inc. |
| 12:00 | <i>Adjourn</i> | | |