

Short Course / Sept. 13, 2022 / 1-5 p.m.

SUMMARY:

Engineering With Nature® (EWN), in partnership with Coastal Zone Foundation, is leading a four-hour course on designing natural-based infrastructure for increased coastal resilience. The course will include 6-7 technical presentations (see below) that cover a broad range of topics which cover quantifying environmental benefits associated with natural infrastructure (NI), strategies for designing NI, identifying existing NI and NI opportunities, and the state-of-the-art in NI practices; innovative engineering and operational procedures, modeling, benefits quantification, and strategic communications.

OBJECTIVE:

- 1) Provide participants with an overview of EWN and its practices and example projects.
- 2) Demonstrate how NI promotes coastal resilience, flood risk reduction, and ecosystem services.
- 3) Introduce participants to many EWN tools, materials, and solutions.
- 4) Share the innovative research being conducted within the EWN program.
- 5) Extend the opportunity for others to get involved.

AGENCIES: USACE, FEMA, NOAA, USFWS, USEPA, USDOT, DoD, State and Local Governments

AGENDA:

- **Opening remarks** (20 minutes)
- **Introduction to NI in Coastal Wetlands:** Overview of Mangroves, Salt Marsh, Oysters - EWN Applied Research, Outcomes, Lab Studies, Modeling capabilities, and Case Studies (30 minutes, includes Q&A)
- **Introduction to NI in Beaches:** Overview of Dune/Bern design, Renourishment - EWN Applied Research, Outcomes, Lab Studies, Modeling capabilities, and Case Studies (30 minutes, includes Q&A)
- **EWN Proving Grounds:** From Research and Development to Application: Discuss the method for applying the state of the art in NI research throughout the nation, and include case studies for workshop development, stake-holder engagement, and successful partnering (30 minutes, includes Q&A)
- **Natural and Nature Based Feature Guidelines:** Large-scale, international effort to provide a guide on the conceptualization, planning, design, engineering, construction, and maintenance of NI - Where to find it and how to use it (15 minutes, includes Q&A)
- **Break** (5 minutes)
- **EWN Engineering Design:** TBD (30 minutes, includes Q&A)
- **EWN Proper Planting:** TBD (30 minutes, includes Q&A)
- **EWN Strategic Communication:** TBD (30 minutes, includes Q&A)
- **Closing remarks:** Where to find out more, and how to get involved (10 minutes)

PRESENTERS: To be determined