This class will focus on port, harbor and fixed offshore platform structures.

**General topics include:**

- Port/harbor damage from earthquakes and tsunamis
- Mooring and berthing of vessels (fixed)
- Multi-point offshore moorings
- Passing vessel analyses
- Small craft offshore marina design
- Soil structure interaction
- Underwater inspection procedures and criteria
- Performance-based structural analysis (static pushover & RSA)
- Sheet pile analysis/design
- Linear, cnoidal and solitary wave theory
- Morison’s equation
- Submerged pipelines
- Offshore platforms (API RP 2A)

**Prerequisites:**

Structural background and an interest in ocean engineering and marine structures

**Text:**


**Other references/software provided on disk include:**

- ADINA (900 node version)
- Fixmoor
- Catenary analysis
- Moment curvature
- Sheet pile analysis/design program
- Various military handbooks and the new USCOE Shore Protection Manual (EM 1110-2-1100)