## Full Mission Engine Simulator Marine Engineering Technology



### **GALVESTON CAMPUS**®



#### Lab Objectives

To provide full mission simulation capability for engine room operations

#### Lab Capabilities

The engine room simulators comprise the following training elements:

- Engine room equipment familiarization.
- System layout and flow diagrams.
- Control system and automation.
- Alarm and safety system.
- Watchkeeping and troubleshooting.
- Emission control and fuel economy management.
- Vessel resource management.
- High Voltage Operation and Equipment Training

The ERS TechSim Full Mission Simulator provides a detailed replica of the vessel systems and simulates machinery and engine room compartments. This lab was developed for engineering staff and provides hands-on experience in watch-keeping, troubleshooting and resource management. This lab is capable of innovative training environments in virtual reality.

#### Lab Facilities

Full Mission, 3D, and VR Capability in:
ANZAC Frigate (Gas Turbine CODOG)
Tanker LL (MAN BW 6S60MC-C Slow Speed Diesel)
Product Tanker (Dual Fuel Slow Speed Diesel)
Container Ship (Electronic Cam Slow Speed Diesel)
LNG Carrier (Dual Fuel Diesel-Electric – High Voltage)
LNG Carrier (Dual Fuel Steam Turbine)



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#### **Courses Supported**

MARR 102 Engine room Resource Management and Dynamics MARE 211 Steam Propulsion Plants MARE 312 Diesel Propulsion Plants MARE 424 Gas Turbine Power Generation ZOPT 100 Corps Activity

#### **Research Supported** NA

#### **Contact and Scheduling**

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# Texas A&M University at Galveston

Marine Engineering Technology Department