Mechanical Engineering Program at Cal Maritime

Dr. Bagheri
ME Professor & Chair
Fall 2019
Mission of the ME Program

- Produce entry-level professionals capable of applying their knowledge of science and engineering in the design, analysis, evaluation, and production of engineering devices and systems.
- Provide students with the necessary academic preparation for further education and professional development in their chosen career.
Is mechanical engineering @ Cal Maritime for me?

What is unique about Cal Maritime?
Options:
- US Coast Guard Third Assistant Engineer Option
- General Option (or ME Option)
The ME Curriculum

• 130 units ~ Traditional ME degree
  – General Education 30 units
  – Mathematics and Physical Sciences 31
  – Core M.E. Courses 60
  – M.E. Stem Elective Courses 9

** Must maintain 2.0 GPA in Major
The Overall Curriculum

• Third Assistant Engineer’s License Option
• ME General Option

  – U.S.C.G. License Option 182 total units
  – ME General Option 155 total units
In your applied technology (EPOs) classes, you will study:

The operation and maintenance of mechanical and electrical equipment

Manufacturing processes (machining, welding)

Operation of power plants and facilities
1st summer
All engineers sail on the Golden Bear

2nd summer
ME-USCG - Commercial vessel cruise
ME Option - industry internship

3rd summer
ME-USCG - Golden Bear Cruise
ME Option - industry internship
Summer Cruise Program

• Freshman Cruise on TS Golden Bear
• Sophomore Cruise on a Commercial Vessel
• Junior Cruise on TS Golden Bear
• 8 units of Academic credits
• Written Commercial Cruise Report
Summer Intern Program

- Freshman Cruise on TS Golden Bear
- Two Summer Industry Placements
  - Sophomore & Junior Summers
  - Two-month paid internship program
  - 3 units of Academic credit
  - Written Co-op Report due at end
ME-USCG or ME-General Option?

When Applying or Fall Semester, Sophomore Year

Transfer between Options is simple up to that point.

Mechanical or Energy Design Stem Elective?

Spring Semester, Junior Year
Capstone Project Teams: 2019-20

1) Autonomous Boat
2) SAE Baja
3) Solar Boat Competition Team 1
4) Solar Boat Competition Team 2
5) DOE Collegiate Wind Turbine
6) Stirling Engine
Some 2019 ME Graduate Job Positions

1) Chubb Insurance: Risk Engineer
2) Southland Industries: Design Engineer
3) Axiom Exergy: Project Engineer
4) Lockheed Martin: Hardware Engineer
5) Northrop Grumman: System Engineer
6) General Electric: Design Engineer
7) ACCO Engineered Systems: HVAC Design Engineer
8) Solar Turbines: Field Engineer
9) AMA Consulting Engineers: Project Engineer
2019 ME Graduate Job Positions

10) Exxon Mobil: Project Manager
11) Siemens Industries: System Specialist
12) Benchmark Electronics: Manufacturing Engineer
13) ECS Federal: Assistant Engineer
14) Johnsons Controls: Control Systems Engineer
15) Chevron: 3rd Assistant Engineer
16) MEBA: 3rd Assistant Engineer
17) Naval Systems Command: Mechanical Engineer