The MATE Center

Addressing the Need for a Qualified Workforce

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Marine Advanced Technology Education (MATE) Center
Monterey Peninsula College
www.marinetech.org

PRICE OF ADMISSION: AMERICA'S COLLEGE DEBT CRISIS

CNBC ORIGINALS

STUDENT DEBT IS NEARING 1 TRILLION DOLLARS.

Could this be the next bubble to burst? Go inside the debt crisis that could keep taxpayers on the hook for generations.

Background on the Marine Advanced Technology Education (MATE) Center

- MATE Center founded in 1997
- Headquartered at Monterey Peninsula College in California, **it is a national partnership** of close to a 1000 colleges, universities, high schools, middle schools, elementary schools, marine industries, and professional societies.
- Funded in part by the National Science Foundation's Advanced Technological Education (ATE) Program, the ITEST Program and the REU program; industry contributions; and SeaMATE store sales.

MATE's Mission

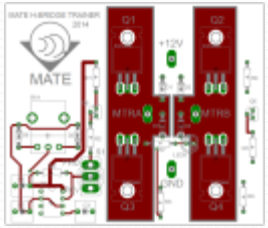
- MATE's mission is to use marine technology to create **interest in and improve science and technology education** and to provide the marine technical workforce with **well-educated technical professionals.**
- A hallmark of all MATE's programs, products and services is that they are **aligned** with ocean workforce **research** and trends.

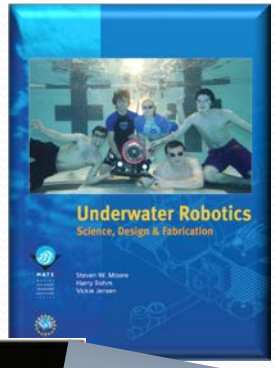



MATE Center Programs

SeaMATE

Textbooks, Curriculum, ROV Kits





Partnerships

800+ Academic Institutions
180+ Industry partners
6 Professional Societies
8 Federal Agencies

Underwater Robotics Competitions

Workforce Studies

At-Sea Internships

Teacher Education

Career Awareness

MATE Strategy for Improving the Marine Technical Workforce

PRODUCTS	DESCRIPTION
Needs identification	List of critical workforce needs from employer queries
↓	
Occupational definitions	Employer recognized occupational categories
↓	
Occupational guidelines	Employee identified knowledge and skills for specific occupations
↓	
Competencies	Knowledge and skills grouped by subject area
↓	
Educational products and services	Competency-based assessments, modules, courses, faculty development workshops, and internships
↓	
Educational programs	Degree and certificate programs aligned with workforce needs
↓	
Career management programs	Job placement programs, professional development courses

Knowledge and Skill Guidelines

KNOWLEDGE AND SKILL GUIDELINES FOR MARINE SCIENCE AND TECHNOLOGY

VOLUME 4

Oceanographic Instrumentation Technician

The Importance of Oceanographic Instrumentation Technicians and Ocean Observing Systems

Oceanographic Instrumentation Technicians play an important role in the collection of scientific measurements that allow us to understand how the oceans work and to use the ocean and its resources more safely and wisely.

Historically, most ocean measurements were made from ships, but increasingly they are being made from unmanned platforms such as moorings, drifters, and autonomous underwater vehicles. The earliest of these measurements or observations were made in the spirit of pure exploration: to describe what the ocean floor looks like, where the strongest currents are, how salty the water is, etc. As new technologies were invented and new theories advanced, targeted ocean measurements were made to try to understand ocean dynamics and biological and geological interactions: why the

Mike Kelley, Ocean Observing Supervisor, works on a mooring observing system in Monterey Bay.

managing fisheries, mitigating oil spills, and forecasting storm surge. The advent of ocean observing systems that take an

The goal of ocean observing systems is to pull together data from various sources to present a cohesive picture of

- Job functions & tasks
- Personal characteristics
- Occupational titles
- Educational backgrounds
- Salary range
- Instruments and tools used
- Professional societies and conferences
- Future trends and more

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MATE/UNOLS Internship Guidelines

The Attitudes and Attributes of a successful intern are as follows:

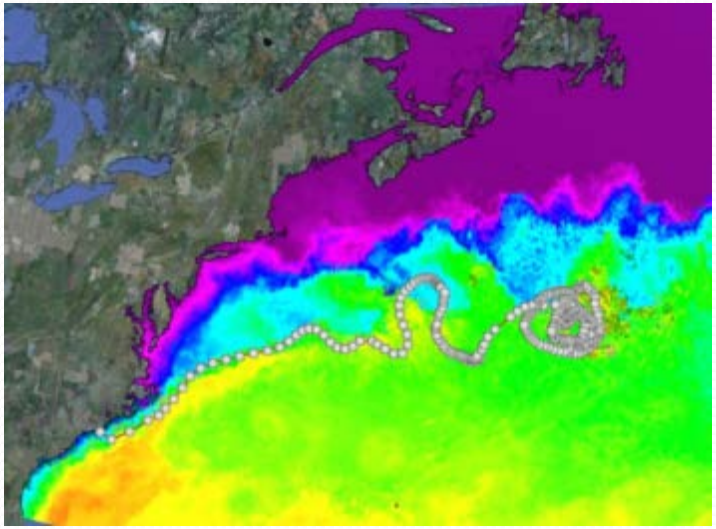
- □ Resourceful
- □ Responsible
- □ Self-starter
- □ Able to communicate clearly both orally and in writing
- □ Patience
- □ Attention to detail
- □ Able to read and interpret manuals
- □ Able to troubleshoot and problem-solve
- □ Confident in decision making
- □ Able to work independently and in teams
- □ Able to recognize his/her limitations, seek help as needed
- □ Able to define & grasp the essence of the problem
- □ Follow-through, does not leave jobs unfinished
- □ Knowledge of and ability to use good customer relations skills
- □ Able to multi-task
- □ Able to think outside the box

Ask me for a copy

Plus much more!

Faculty Institutes

- Engineering Design
- Introduction to ROVs
- Marine Geospatial Technology



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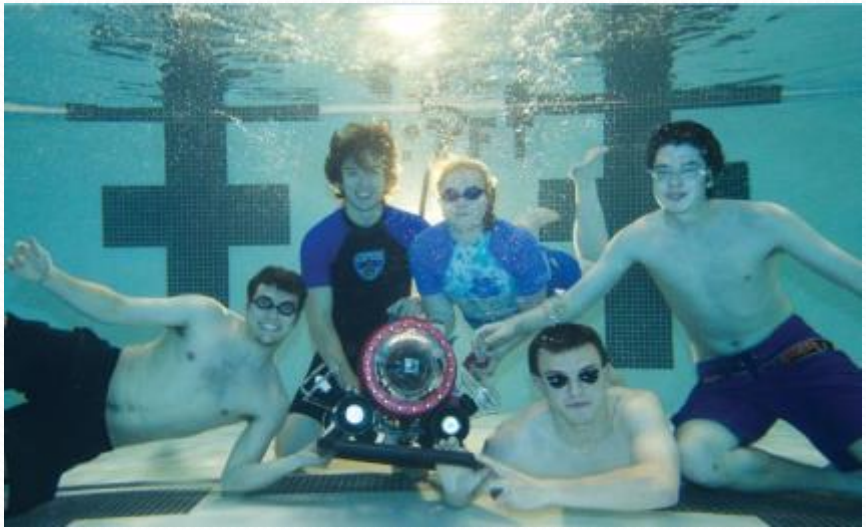
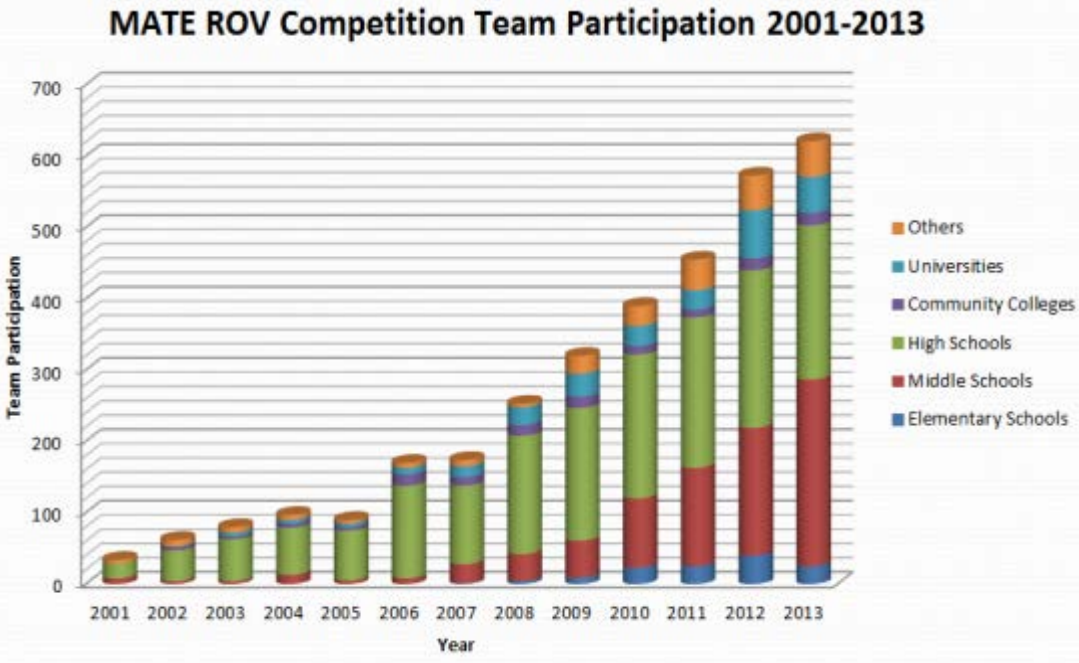
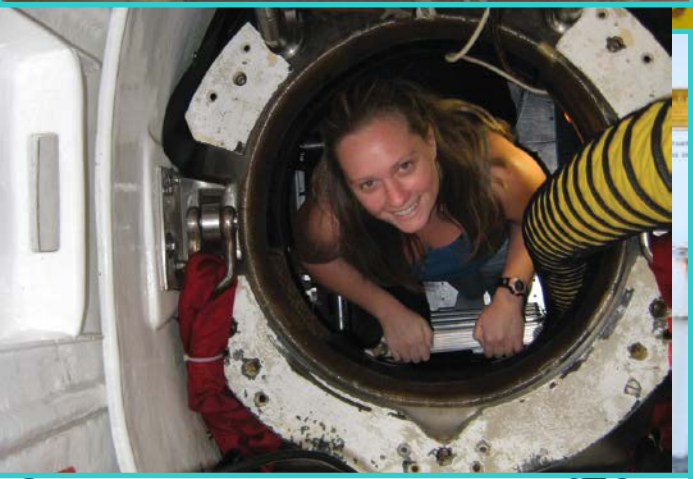
MATE Underwater Robotics Competitions

23 regional contests across the U.S. & around the world

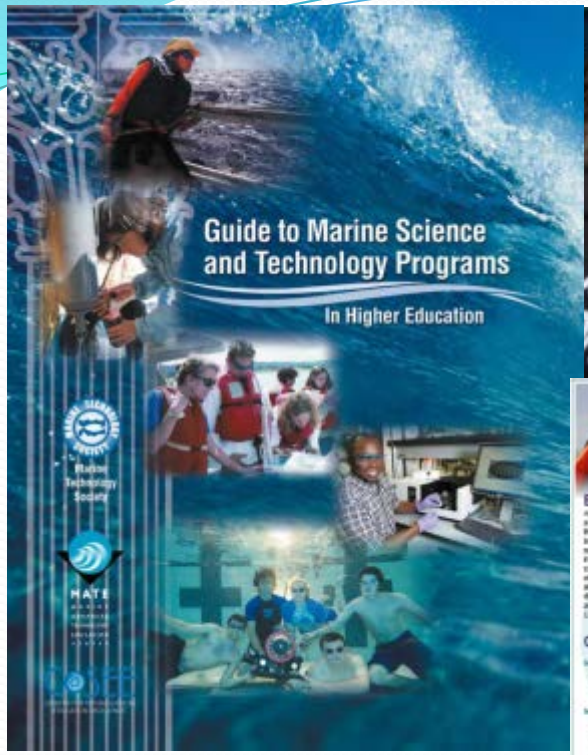


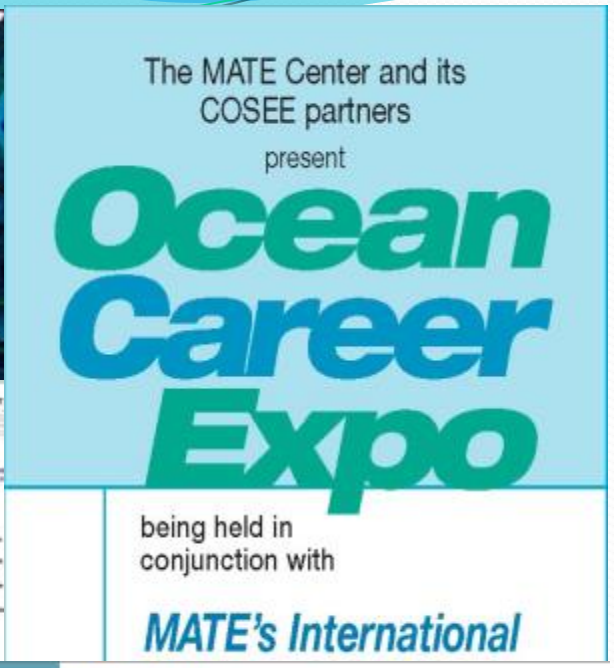


At Sea Internships



Career Awareness and Career Management





SeaMATE Is a *Social Enterprise*

that provides community college students with workplace experience while creating products and services which promote marine technical education.

- Manufacturing skills
- Business and marketing
- Customer relations & customer training
- Peer to peer training
- Quality control
- Entrepreneurism
- Networking with professionals

SeaMATE PufferFish

SeaMATE TriggerFish

Questions?

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