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| ­CTE INDUSTRY SECTORS | CTE CAREER PATHWAYS | **BLUE ECONOMY: CAREERS** |
| **Agriculture and Natural Resources** | • Agricultural Business  • Agricultural Mechanics  • Agriscience  • Animal Science  • Forestry and Natural Resources  • Ornamental Horticulture  • Plant and Soil Science | • Aquaculture Specialist  • Off shore and Deep Water Fishing  • Kelp Harvesting for carbon management  • Restoration: coral reefs, mangroves, waste  • Marine Biologist  • Sustainability Researcher and Advocate  • Commercial Diver |
| **Arts, Media and Entertainment** | • Design, Visual, and Media Arts  • Performing Arts  • Production and Managerial Arts  • Game Design and Integration | • Underwater Filmmaker  • AI, VR, ML Designer  • Photojournalist  • Writer: fiction/non-fiction/science fiction  • Writer for Master Maritime Construction Plans |
| **Building and Construction Trades** | • Cabinetry, Millwork, and Woodworking  • Engineering and Heavy Construction  • Mechanical Systems Installation and Repair  • Residential & commercial Construction | • Maritime Construction, Coastal Engineer  • Shipbuilding and Repair  • 3D Prototyping  • Naval Architecture |
| **Business and Finance** | • Business Management  • Financial Services  • International Business | • The Blue Economy  • Maritime and International law  • Binational Waste Management (Tijuana River)  • B-Core Entrepreneurs in Sustainable Practices |
| **Education, Child Development, and Family Services** | • Child Development  • Consumer Services  • Education  • Family and Human Services | • Blue Technology Educator  • Ocean STEM Educator  • Environmental & Climate Science  • Environmental Advocate/Activist |
| **Energy, Environment, and Utilities** | • Energy and Power Technology  • Environmental Resources  • Telecommunications | • Desalination & Clean Water Technology  • Climate Scientist  • Renewable Ocean Energy  • Ocean Stewardship  • Marine Geologist / Archeologist  • Social/Environmental Justice Attorney |
| **Engineering and Architecture** | • Architectural Design  • Engineering Technology  • Engineering Design  • Environmental Engineering | • Design & Innovation  • Maritime Engineering  • Underwater Robotics/ Unmanned Drones  • User-Centered Design Specialist  • Marine Spatial Planning |
| **Fashion and Interior Design** | • Fashion Design and Merchandising  • Interior Design  • Personal Services | • Eco-fashion Designer  • Clothing from Plastics and Ocean Debris  • Nautical Fashion |
| **Health Science and Medical Technology** | • Biotechnology  • Patient Care  • Healthcare Administrative Services  • Health Care Operational Support Services  • Public and Community Health  • Mental and Behavioral Health | • Biomedical Researcher  • Aquatic Mammal Veterinarian  • Wilderness-based Therapist  • Environmental Scientist  • Cruise Ship Nurse Practitioner  • Kelp Forest: Research and Development |
| **Hospitality, Tourism, and Recreation** | • Food Science, Dietetics, and Nutrition  • Food Services and hospitality  • Hospitality, Tourism, and Recreation | • Maritime Recreation: Sailing, Surfing, Skiing  • Sustainability Advocate- for Cruise Ships  • Ports, Marinas and Waterfronts  • Eco-Tourism  • Seafood and the Restaurant Industry |
| **Information and Communication Technologies** | • Information Support and Services  • Networking  • Software and Systems Development  • Games and Simulation | • Open Sea Communications  • In-ship, Underwater, Satellite and Wireless  • GPS: Mapping the Ocean Floor  • Cyber Security |
| **Manufacturing and Product Development** | • Graphic Production Technologies  • Machining and Forming Technologies  • Welding and Materials Joining  • Product Innovation and Design | • Seasteading: Floating & Underwater Cities  • Off Shore Energy Development  • UX Design for Livable Underwater Habitats  • Blue Tech Industries |
| **Marketing, Sales and Services** | • Marketing  • Professional Sales  • Entrepreneurship/Self Employment | • Maritime Alliance Organizations  • Blue Tech Economy  • Blue Economy Entrepreneurialism |
| **Public Services** | • Public Safety  • Emergency Response  • Legal Practices | • Homeland Security, Coast Guard/Navy  • Maritime Firefighter, Search and Rescue  • Lifeguards and Basic Water Safety |
| **Transportation** | • Operations  • Structural Repair and Refinishing  • Systems Diagnostics, Service, and Repair | • Shipping, Ship Captain, Deckhand  • Ports and Marine Transportation  • Navigation, Tracking & Visualization  • Merchant Marines |

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Developed by Kevin W. Riley, 2023