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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