MARITIME ADMINISTRATION
U.S. Department of Transportation
Center of Excellence (CoE) for Domestic Workforce Training and Education

Hampton Roads Maritime Industries Education Alliance –
Old Dominion University (ODU) – Norfolk, VA

The Secretary of Transportation designates the Hampton Roads Maritime Industries Education Alliance, incorporating Old Dominion University (ODU), as a Center of Excellence for Domestic Maritime Workforce Training and Education (CoE). As an R1 public research university contributing $2.6 billion annually to Virginia's economy, ODU anchors the region's shoreside maritime education, advanced engineering technology, digital shipbuilding research, and supply chain management. Located in the heart of Hampton Roads adjacent to major naval commands and commercial port facilities, ODU collaborates directly with defense, shipbuilding, ship repair, and logistics employers to strengthen domestic maritime readiness through industry-aligned degree tracks, cooperative education, and applied research partnerships.

Operational Footprint & Assets

• **School of Supply Chain, Logistics, and Maritime Operations:** State-approved interdisciplinary school delivering specialized undergraduate and graduate degree tracks, including B.S. and M.S. degrees in Maritime & Supply Chain Management and Trade, Port, and Logistics Management.
• **Naval Architecture & Marine Engineering Tracks:** Offers specialized engineering tracks through the Frank Batten College of Engineering & Technology (ABET-accredited), including a B.S. in Mechanical Engineering Technology (concentrations in Marine Systems and Nuclear Systems), a Minor in Marine Engineering, and Graduate Certificates in Naval Architecture and Marine Engineering
• **ODU National Security Institute (ODU-NSI):** Serves as a university-wide hub integrating interdisciplinary research, advanced technology, industry partnerships, and workforce development to address critical national security and maritime challenges across nine specialized centers:

- *Virginia Modeling, Analysis, and Simulation Center (VMASC):* Advances digital twin technology, modeling, simulation, and data analytics for defense and critical infrastructure.
- *Center for Secure and Intelligent Critical Systems (CSICS):* Integrates cybersecurity, artificial intelligence, and resilient technologies across maritime digital systems.
- *ODU-JLAB Joint Institute of Advanced Computing for Energy and Science (ACES):* Leverages high-performance computing and data science to solve complex computational challenges.
- *Virginia Digital Maritime Center (VDMC):* Develops immersive training technologies and applied research to mitigate workforce and supply base gaps across the defense industrial base.
- *Institute for Autonomous and Connected Systems (IACS):* Researches, tests, and deploys autonomous capabilities, robotics, and uncrewed vehicle systems across maritime, aerial, and land environments.

- *Virginia Institute for Spaceflight and Autonomy (VISA):* Accelerates innovation and commercialization in autonomous systems and remote sensing environments.
- *Maritime, Ports & Logistics Institute (MPLI):* Conducts operational research and strategic analysis to optimize port operations, commercial efficiency, and logistics resilience.
- *National Center for Collaboration in Medical Modeling and Simulation (NCCMMS):* Applies virtual modeling and simulation technologies to medical operational readiness and emergency response.
- *Center for Mission Engineering (CME):* Applies mission-centric decision support tools and systems-of-systems engineering for defense partners.

• **Maritime Autonomous Systems Test Site (MASTS):** A dedicated waterfront testing facility established at Willoughby Spit in partnership with the City of Norfolk, designed to accelerate the development, live field testing, and commercialization of uncrewed surface vessels (USVs), underwater robotics, and maritime autonomous systems.
• **Digital Engineering and AI Laboratory:** Established in partnership with Valkyrie Enterprises to modernize naval defense technology, systems engineering, digital shipbuilding, and fleet sustainment capabilities.
• **DOE Cybersecurity Center for Offshore Wind Energy:** Houses a $1 million Department of Energy grant-funded research facility dedicated to securing digital energy infrastructure and offshore grid connectivity.

Workforce & Regional Impact

• **High Degree & Credential Conferred Volume:** Confers more than 1,000 maritime-aligned degrees and graduate certificates annually across civil, coastal, electrical, and mechanical engineering; cybersecurity; data science; and maritime supply chain and logistics.
• **Primary Shipyard Talent Pipeline:** Serves as the single largest university alumni provider to Newport News Shipbuilding, with more than 1,000 ODU graduates currently employed at the shipyard.
• **Trades Curriculum & Community Engagement:** ODU-NSI centers have engaged over 59,200 individuals, developed 33 maritime curricula and workshops, and created Level 2/3 Marine Trades Training courses in Welding, Structural Fitting, Marine Electricity, and Coatings for regional community colleges.
• **Defense & Applied Research Sponsorship:** ODU-NSI centers have secured over $18 million in research awards supporting digital shipbuilding transformation, 3D modeling, and fleet resilience initiatives.
• **Military & Veteran Integration:** Recognized as a top-rated veteran-friendly institution with military-connected students comprising over 12% of the undergraduate student body in a defense corridor where Department of Defense spending accounts for 45.6% of regional economic activity.

Strategic Outlook

Strategically positioned within the nation's premier naval and maritime corridor, Old Dominion University connects academic rigor with the operational demands of the domestic maritime industrial base. By expanding live testing at the MASTS autonomous waterfront range,

accelerating AI integration through the Valkyrie Enterprises partnership, and conferring over 1,000 specialized degrees annually, ODU strengthens the technological superiority and supply chain resilience of U.S. naval fleet operations, commercial ship repair, and Mid-Atlantic port infrastructure.