Research Resources

Office of Research

Old Dominion University is classified as a Research Institution having high research activity, according to the Carnegie Foundation. In FY 2013, its total research and development (R&D) including institutionally-financed expenditures amounted to $99.14 million. In an effort to sustain, enhance and grow its research enterprise, Old Dominion’s Office of Research serves the faculty, staff, and students by providing basic research administrative services. The office also provides interface with public and private members of the external community as well as federal and state agencies that have a vested interest in research. The office is led by the Vice President for Research and includes staff members who are able to leverage a breadth of experience and convey quality services related to development of research programs, regional economic development, compliance in the conduct of research, grant writing and development, intellectual property, technology transfer, and governance issues related to sponsored programs. Sponsored research administration services, encompassing the range of pre- and post-award grant and contract administration, in particular, are provided by the ODU Research Foundation.

While most of Old Dominion’s research enterprise centers and entities are housed within specific colleges, the ones that are the most diverse in terms of their research focus and/or scope are configured within the Office of Research. The Virginia Modeling, Analysis, and Simulation Center (VMASC), the Frank Reidy Research Center for Bioelectrics, the Virginia Coastal Energy Research Consortium (VCERC), the Animal Facility and the Orchid Conservatory are five such entities.

VMASC is a multi-disciplinary modeling, simulation and visualization collaborative research center of Old Dominion University. With more than 100 industry, government, and academic partners, VMASC furthers the development and application of modeling, simulation, and visualization as an enterprise decision-making tool and promotes economic development through the transition of intellectual property to the commercial sector. Its core capabilities are: military modeling and simulation (primarily combat simulations), homeland security and homeland defense, medical simulations, social system modeling, transportation, serious gaming, virtual environments, and business and supply chain modeling. VMASC creates computer simulations and conducts program analyses to meet stakeholders’ needs. Computer simulations provide the capability to: quickly and economically test theories and ideas; help visualize and understand complex situations; prioritize labor and capital investment opportunities; and reduce the risk inherent in business decisions. The research interests and capabilities of VMASC include: simulation methodologies, mathematical modeling, simulation inter-operability, verification and validation, distributed simulation, computer visualization, immersive virtual environments, human factors, social behavior, performance analysis, intelligent systems, decision support and collaboration methodologies, and modeling and simulation systems integration.

The Frank Reidy Research Center for Bioelectrics (FRRCB) is internationally recognized as a leader in the understanding of the interaction of electromagnetic fields and ionized gases with biological cells and the application of this knowledge to the development of medical diagnostics, therapeutics, and environmental decontamination. The center is part of an International Consortium for Bioelectrics that includes universities and research institutes from Japan, Germany, France and the United States. The objectives of the center are to perform leading edge interdisciplinary and multi-institutional research, recruit top faculty and exceptional graduate students, support regional, national and international programs, and increase multi-institutional research, recruit top faculty and exceptional graduate students, support regional, national and international programs, and increase students, support regional, national and international programs, and increase students, support regional, national and international programs, and increase students, support regional, national and international programs, and increase external funding and institutional visibility. Research conducted at the FRRCB has already attracted substantial federal agency support including multiple grants from the National Institutes of Health, Department of Defense and the National Science Foundation. The FRRCB has expertise in pulsed power technology for biological and medical applications in the subnanosecond to the millisecond range and includes the design and modeling of pulse delivery systems. A wide range of research is conducted at the center including new cancer therapies, wound healing, decontamination, imaging and cardiovascular applications. As one of the first institutions to apply this technology in medicine and biology, Old Dominion University anticipates the potential for proprietary use of the technology with both marketing and licensing opportunities.

The Virginia Coastal Energy Research Consortium (VCERC) is a multidisciplinary research unit charged by the Commonwealth to study and identify alternative solutions to problems arising from over-dependence on fossil fuels that is unsustainable and has become the single biggest threat to our environment, economy, and national security. Virginia, with its vast coastline, natural waterways and abundant sunshine, is ideally suited for a number of alternative energy applications. VCERC seeks out and develops new alternative energy research directions and evaluates viable renewable energy sources for Virginia with an initial focus on offshore winds and the conversion of coastal algal biomass to biofuels. At Old Dominion University, VCERC involves faculty researchers from the Batten College of Engineering and Technology and the College of Sciences, and is structured to operate in partnership with a number of Virginia institutions: Virginia Tech – Alexandria Research Institute, Virginia Institute of Marine Science, Norfolk State University, James Madison University, Virginia Commonwealth University, University of Virginia, and Hampton University.

This statewide, inter-university network seeks to become a leader in the research and development of numerous alternative energy projects that are of direct benefit to local employment, manufacturing groups, state institutions, the students and staff of Virginia universities, and the public.

Research and Enterprise Centers

The University has established a number of research and enterprise centers. Please check the web pages of the Office of Research www.odu.edu/research and those of the individual colleges for information regarding centers in specific areas.

Research Policies

Students who receive compensation through sponsored research, tuition/fee waivers, scholarships, assistantships, or other financial arrangements are covered by Old Dominion University’s Policy on Intellectual Property. This policy covers the ownership and use of copyrighted works, inventions, and any other form of intellectual property. In those cases where the University has a vested interest in intellectual property, the policy specifies how any revenues derived will be distributed between the inventor/author and the University. The policy can be found in its entirety at http://www.odu.edu/content/dam/odu/offices/bov/policies/1400/bov1424.pdf.

Students engaged in scientific research or other scholarly activity at Old Dominion University should also be aware of the University’s Policy, Procedures and Timeline for Responding to Allegations of Misconduct in Scientific Research and Scholarly Activity. The policy can be found in its entirety in the Board of Visitors manual section on Research Policies at http://www.odu.edu/about/policiesandprocedures/bov.

Research Foundation

The Old Dominion University Research Foundation is a separate, private, not-for-profit corporation chartered under the laws of the Commonwealth of Virginia in 1965. The foundation serves as the fiscal and administrative agent to manage research and sponsored programs and aid in technology commercialization for Old Dominion University. The foundation’s purpose is to promote the education, research and public service objectives of Old Dominion University by encouraging, advancing, fostering, and conducting research and sponsored programs in engineering, the physical and life sciences, the humanities, education, and all other branches of learning.

The foundation is the contracting agent for University research grants and contracts with external funding agencies. In fiscal year 2013, the Research Foundation received $116 million in awards for research and sponsored programs. Research and sponsored program activity for fiscal year 2013, measured by amount of expenditures, totaled $74 million for projects sponsored by federal, state, and local government agencies and a variety of corporations and private foundations.

Technical direction of a sponsored program remains the responsibility of the principal investigator. The foundation supports the University and assists investigators by providing a broad range of administrative and technical
support services. Among these services are: financial administration, budget preparation and monitoring, financial compliance guidance, proposal preparation and submission assistance, project payroll and human resources, financial reporting, technical reporting support, intellectual property administration, procurement and equipment inventory control.