

Facilities and Other Resources

The Ohio State University is one of America's largest and most comprehensive public universities, the 2012 edition of U.S. News & World Report ranked 16 of Ohio State's graduate programs in the top 10. More than 55,000 students select from 14 colleges, 175 undergraduate majors, and 240 masters, doctoral, and professional degree programs. Ohio State conferred 15,732 degrees in 2010-2011, including more than 6,000 in STEM (science, technology, engineering, and math).

The **Ohio Agricultural Research and Development Center** (OARDC) in Wooster, Ohio is the research branch of OSU's College of Food, Agricultural, and Environmental Sciences (CFAES). Based on the Wooster campus and with operations in Columbus and 10 other locations throughout the Buckeye state, the OARDC is one of the country's largest university agricultural bioscience research centers. The OARDC supports over 200 faculty members, including 60 faculty members on the 2000 acre Wooster campus. This research campus includes core facilities required to support greenhouse, field, and laboratory investigations, including the Molecular and Cellular Imaging Center. The **College of Food, Agricultural, and Environmental Sciences** also supports several Centers of Innovation, focused collaborative research centers designed to address the most critical research areas 1) food security, production, and human health, 2) environmental quality and sustainability, and, 3) advanced bioenergy and bio-based products.

The Ohio State University offers technology support through the **Office of the Chief Information Officer** to enhance learning experiences, with innovative technology resources, like Internet 2 networks. In addition, the College of Food, Agricultural, and Environmental Sciences provides additional technological and web conferencing support through the **Section of Communications and Technology (CommTech)**. CommTech provides expert assistance to faculty in creating and delivering course materials through several on-site classroom and distance education electronic formats. In addition, digital video recording equipment and editing software, as well as web development, and podcast editing software are available to aid in the online course development (Camtasia). For evaluation efforts, CommTech provides software for online survey design and data collection. Researchers also have access to the computing systems of the Ohio Supercomputer Center, located near the OSU Columbus campus.

Learning Technology services include eLearning, multimedia, and classroom technology consultation; visual and information design support; audio/video production advice; professional development grants for faculty and staff; and research and development of eLearning strategies. Specifically, the Quality Matters program is used to peer review online or blended courses to ensure quality courses and continuous improvement on those courses. Adobe Connect is also used as the web conferencing service for real-time, online course/meeting delivery.

Carmen Learning Management System: Carmen, Ohio State's learning management system is used by instructors and teaching assistants to create and share materials. Carmen automatically

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creates a blank course shell, complete with a class roster and a set of course tools, for every course in the Registrar's Master Schedule. Instructors can distribute instructional materials, e-mail students, create and manage groups, engage students in discussions and online chats, administer quizzes and surveys, track student progress, and manage grades and optionally transfer final grades to the Registrar. Students can use Carmen to access course content, check their grades, view alerts for class activities, submit assignments electronically, and communicate with each other.

Moodle is an Open Source Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). Instructors have the option of using Moodle to deliver their online courses to students beyond Ohio State.

The Digital Union provides support for teaching and learning with technology. Instructors can find help with instructional design and educational technology. In addition, the Digital Union is the place where faculty, students, and staff explore emerging teaching and learning technologies. Members of the university community can consult with expert staff and use production facilities and training resources to complete multimedia projects.

UCAT – University Center for the Advancement of Teaching provides assistance to instructors by providing information on teaching, consultation services, and events on teaching. UCAT is available to help instructors develop their classes and then evaluate them.

A number of established programs at OSU and in the CFAES are aimed at developing the capacity of graduate students to fill management and leadership roles in the food and agricultural science disciplines. **The OSU Leadership Center** (<http://leadershipcenter.osu.edu>) is nationally and internationally recognized for making a positive difference in the lives of individuals, families, organizations, and communities through leadership education and research.

OSU has a vast infrastructure to support doctoral education and research at the highest level. The **OSU Library** (ranked 12th strongest research library of 122 in North America by the Association of Research Libraries) was recently renovated and has more than six million volumes catalogued into a single, on-line, computerized retrieval system. University Technology Services provides several mainframe computer systems for instructional and research uses. It also maintains 29 microcomputer laboratories for student use on campus with 3,400 seats and supports a wide range of computer software packages for graduate students.

The Ohio State University has trained staff to complete all purchase and reimbursement transactions, make travel arrangements, and provide human resources services. The **Ohio State University Office of Research** provides pre-award and post-award services for externally funded projects. A program director is assigned to each research group to assist with researcher questions, and to have oversight for budgets and fidelity to funding guidelines. A service of the

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University research office is an on-line PI-Portal where principal investigators have daily access to their budgets and various approvals that must be maintained as a function of funded research.

The Department of Entomology: Ohio State's Entomology Department is ranked within the top 10 in the US in terms of the National Research Council and Research Productivity. The Department has just completed the development of a new graduate curriculum which incorporates modern biotechnology and includes several professional development courses, which are included as either core or elective courses for the MPH program. There are 6 lecture/laboratory rooms used for distance education delivery between Wooster and Columbus campuses. These rooms also include microscopes with video ability and computational software for recording lectures.

The Department of Plant Pathology: Ohio State's Plant Pathology PhD Program is among the top 5 in the U.S., as ranked by the National Research Council. Notable strengths include Research and Student Support, which affirms our strong commitment to education, teaching and outreach, with several courses developed to train the plant health management practitioner. These courses are part of the core for the Masters in Plant Health Management Program. There are 6 lecture/laboratory rooms dedicated for distance delivery between the Wooster and Columbus Campuses, using the video link PolyCom system. Three of these rooms have microscopes with video/camera capabilities to provide real-time close-ups of pathogens and/or insects to students at other location(s). The facilities are also connected with several OARDC outlying research branches and The C. Wayne Ellet Plant and Pest Diagnostic Clinic.

The Department of Agricultural Communication, Education, and Leadership: The Department of Agricultural Communication, Education, and Leadership (ACEL) houses the Agricultural and Extension Education (AEE) graduate program where two of the Co-PIs teach and the Program Manager and Doctoral Student assigned to this project will be housed. The foundation for graduate study in the Department includes the behavioral and social sciences and the history and philosophy of education and communication. Education and communication, as branches of knowledge and learning, are complementary as both draw from similar philosophical, theoretical, and empirical foundations and each contributes to the study and practice of the other. Students pursuing graduate study in the Department learn to understand and use knowledge grounded in foundation disciplines for planning, implementing, and evaluating educational and communication programs in the food, agricultural, and environmental sciences.

ACEL will provide office space and access to supporting resources for ACEL graduate students, staff, and faculty supporting the project. ACEL will also provide access to recently renovated classrooms with state-of-the art educational technology and distance education capabilities. This also includes the new Agricultural Communications laboratory, which includes high-end Apple

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computers, digital video and editing software, web development software, and podcast editing software.