OTHER DEGREES & PROGRAMS WITHIN THE COLLEGE OF AGRICULTURAL SCIENCES

Undergraduate Programs

Majors

- Bioresource Research Undergraduate Major (BS, HBS) (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs)

Options

- Animal Reproduction and Development
- Applied Genetic (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs/applied-genetics-option)
- Bioenergy (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs/bioenergy-option)
- Bioproducts (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs/bioproducts-option)
- Biotechnology (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs/biotechnology-option)
- Climate Biosystems Modeling (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs/climate-biosystems-modeling-option)
- Environmental Chemistry (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs/environmental-chemistry-option)
- Food Quality (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioresource-research-bs-hbs/food-quality-option)
- Genomics/Bioinformatics
- Pest Biology and Management
- Plant Growth and Development
- Sustainable Ecosystems
- Toxicology
- Water Resources
- International Studies Undergraduate Major (BA, HBS)
  - See International Programs (https://catalog.oregonstate.edu/college-departments/international-programs) for information on the International Studies Degree.

- Sustainability Undergraduate Major (BS, HBS) (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/sustainability-bs-hbs)

Minors

- Bioenergy (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/bioenergy-minor)
- Sustainability (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/other-degrees-programs/sustainability-minor)

College of Agricultural Science Courses

AGRI 199. SPECIAL TOPICS. (1-3 Credits)
This course is repeatable for 8 credits.

AGRI 299. SPECIAL TOPICS. (1-4 Credits)
Targeted courses that focus on specific topics in agriculture and natural resources. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.
This course is repeatable for 8 credits.

AGRI 399. SPECIAL TOPICS. (1-4 Credits)
Targeted courses that focus on specific topics in agriculture science. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.
This course is repeatable for 8 credits.

AGRI 402. INDEPENDENT STUDIES. (1-16 Credits)
Graded P/N.
This course is repeatable for 16 credits.

AGRI 407. SEMINAR. (1-16 Credits)
This course is repeatable for 16 credits.

AGRI 411. INTRODUCTION TO FOOD SYSTEMS: LOCAL TO GLOBAL. (3 Credits)
What is a food system, what does it look like, and how does it work? How do our food choices shape our world? Food systems, farm to plate, operate within social, political, economic, and natural environments, at multiple scales. This multidisciplinary course will introduce students to the complex topic of food systems, at different scales and from a variety of perspectives. (Bacc Core Course)
Attributes: CSST – Core, Synthesis, Science/Technology/Society

AGRI 438. EXPLORING WORLD AGRICULTURE. (2 Credits)
Global practices of food production are highly diverse. However, there are also many common global issues related to agriculture, food, and natural resources. Speakers with international backgrounds and experiences will present material, as well as student teams who will research a topic of personal interest. In addition, opportunities for global study, internship, and research will be explored.

AGRI 499. SPECIAL TOPICS. (1-4 Credits)
Targeted courses that focus on specific topics in agriculture and natural resources. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.
This course is repeatable for 8 credits.

AGRI 511. INTRODUCTION TO FOOD SYSTEMS: LOCAL TO GLOBAL. (3 Credits)
What is a food system, what does it look like, and how does it work? How do our food choices shape our world? Food systems, farm to plate, operate within social, political, economic, and natural environments, at multiple scales. This multidisciplinary course will introduce students to the complex topic of food systems, at different scales and from a variety of perspectives.
AGRI 520. INTRODUCTION TO ORGANIC FOOD PRODUCTION. (3 Credits)
History of organic farming, advantages and disadvantages, review of long-term studies comparing organic and conventional production systems, a review of the federal organic production guidelines, methods and applications for organic production facilities, crop nutrition, compost and manure utilization, organic amendments, organic field crop production, organic gardening, organic livestock production, weed and pest control in organic systems, and marketing of organic produce.
Recommended: CROP 200 or SOIL 205 or BI 213 or introductory biology

AGRI 599. SPECIAL TOPICS. (1-4 Credits)
Targeted courses that focus on specific topics in agricultural science. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.
This course is repeatable for 8 credits.

Bioresource Research Courses

BRR 100. GREAT EXPERIMENTS IN BIORESOURCE SCIENCES. (1 Credit)
For students interested in BRR and undergraduate research, to introduce the research process and help them start defining research interests and project areas. Faculty describe research projects and experimental approaches, and pose interesting political and ethical questions related to scientific research. Students work with junior and senior student mentors already involved in research projects. Offered fall term.
This course is repeatable for 2 credits.

BRR 200. DEVELOPING A RESEARCH PROPOSAL: THEORY AND PRACTICE. (1 Credit)
An introduction to conceptual issues for organizing, planning, designing and conducting research in biological and agricultural sciences and natural resources disciplines. Students will master methods and philosophy of research, and then apply them by working in teams to analyze a timely and relevant problem and formulate experimental approaches to address it.
This course is repeatable for 2 credits.

BRR 299. SPECIAL TOPICS. (1-16 Credits)
This course is repeatable for 16 credits.

BRR 325. ENERGY TECHNOLOGY AND SOCIAL CHANGE. (3 Credits)
Science and technology co-evolve with a prosperous human society. The course discusses key issues surrounding the interaction between social changes and energy technologies. (Bacc Core Course)
Attributes: CSST -- Core, Synthesis, Science/Technology/Society
Recommemded: One term physical science with lab.

BRR 350. INTRODUCTION TO REGIONAL BIOENERGY. (2 Credits)
Field trips to visit regional industry and research facilities will introduce bioenergy core concepts and technologies. Guest lecturers will provide technical background and discuss economic, environmental and socio-cultural sustainability of bioenergy. Course projects will analyze and present each facility in the context of regional bioenergy issues. Lec/lab.

BRR 399. SPECIAL TOPICS. (0-4 Credits)
This course is repeatable for 6 credits.

BRR 401. RESEARCH AND SCHOLARSHIP. (1-16 Credits)
Undergraduate mentored research. Students select a faculty research mentor (from 7 OSU colleges) and complete 14 credits of research. Students follow established guidelines to prepare project proposals, progress reports, and a thesis; learn research methods applicable to their chosen field; gain professional skills and contacts. Students are evaluated on their ability to develop and complete a research project proposal, learn and develop research methodologies, conduct research and trouble-shooting procedures, and demonstrate responsible and ethical participation in the research project. Offered all terms.
This course is repeatable for 99 credits.

BRR 403. THESIS. (4 Credits)
BRR students independently interpret and present their research in writing. Students write the thesis in a style appropriate for submission to a peer-reviewed journal in their chosen scientific discipline. Students receive a letter grade based on their final thesis. Timeliness of reports is factored in student assessments. The student’s faculty mentor and the BRR Director provide a consensus grade when the thesis is completed. Offered all terms. (Writing Intensive Course)
Attributes: CWIC -- Core, Skills, WIC
This course is repeatable for 16 credits.

BRR 404. WRITING AND CONFERENCE. (1-3 Credits)
Thesis writing for Bioenergy minor and other students.
This course is repeatable for 3 credits.

BRR 405. READING AND CONFERENCE. (1-16 Credits)
This course is repeatable for 16 credits.

BRR 406. PROJECTS-DATA PRESENTATIONS. (1 Credit)
For any student doing research, to learn to develop and evaluate poster and slide presentations containing scientific data. Students are exposed to a variety of scientific disciplines as they prepare and critique their own and other students’ posters and oral presentations. Students improve written and oral communication skills. Letter grade is based on participation, improvement, and the quality of a final poster project and oral presentation. Offered winter term. CROSSLISTED as HORT 406.
Equivalent to: HORT 406

BRR 407. SEMINAR. (1 Credit)
For BRR students, to encourage excellence in public speaking. Exposes students to a variety of current seminar topics and provides them with the opportunity to evaluate components of good public seminars. Students receive a grade only after completing a public seminar on their own research (final research seminar). Offered spring term.

BRR 409. PRACTICUM: TEACHING AND PEER MENTORING. (1-2 Credits)
Upper-division BRR students are grouped with lower-division students in BRR 100 to facilitate discussion and encourage dialogue about current research topics. Juniors and seniors. Juniors and seniors continue to learn new ways to teach and communicate science issues in written and verbal formats. Offered fall term.
This course is repeatable for 16 credits.

BRR 410. INTERNSHIP. (1-12 Credits)
Supervised internship allowing students to gain off-campus work experience for credit. Under direction and approval of the program director, students will submit a statement of intent, identify employer contact, and provide a written report upon completion.
This course is repeatable for 16 credits.
BRR 450. INTERDISCIPLINARY RESEARCH: BIOENERGY FOCUS. (2 Credits)
Bioenergy research presentations and papers introduce scientific inquiry, the research process, research seminars, papers and proposals. Analysis of different disciplines' approaches to research tools and data sources (e.g., quantitative versus qualitative approaches). Student teams write research proposals. Second core class in the Bioenergy minor.

BRR 499. SPECIAL TOPICS. (2 Credits)
This course is repeatable for 4 credits.