12/19/2017

Proposal for a New Academic Program

Institution: Oregon State University

College/School: College of Agricultural Sciences

Department/Program Name: Organic Agriculture

Degree and Program Title: Graduate Certificate

1. Program Description

a. Proposed Classification of Instructional Programs (CIP) number.

01.9999 Agriculture, Agriculture Operations, and Related Sciences, Other. Any instructional program in agriculture, agricultural operations, and related sciences not listed above. (Occupational Crosswalk)

b. Brief overview (1-2 paragraphs) of the proposed program, including its disciplinary foundations and connections; program objectives; programmatic focus; degree, certificate, minor, and concentrations offered.

The online Graduate Certificate in Organic Agriculture will address the current educational gap created by a rapidly-growing global industry and the needs of this industry for trained, experienced professionals. Courses for the certificate will be offered online, allowing students and professionals to access graduate study where they may otherwise not have access, as there is no other graduate-level program in Organic Agriculture in the US, Canada or Europe. The objective of this program is to provide this necessary expertise, and produce graduates who will then be able to effectively work in organic food production, processing, distribution, policy-making, education, or potentially beginning their own organic-related businesses.

This certificate will be a provided through the College of Agricultural Science with courses taught by several Departments and Programs across campus. This will allow us to build a graduate program with the potential for several areas of specialization within the Organic Agriculture Certificate. Courses offered in Anthropology, Food Systems, Food Culture and Social Justice, and Health and Human Sciences will give students perspective on the social and cultural impacts of the way organic foods are produced and consumed around the world; courses offered by the Departments of Horticulture, Crop and Soil Science, and Animal Science will allow students to understand organic production with the potential to specialize in several areas: whole farms systems management, organic livestock management, and specific crop types for which organic production is used.

c. Course of study – proposed curriculum, including course numbers, titles, and credit hours.

Required Core		
AGRI 5XX	Overview of Organic Food	3

	Production	
SOILS/CROP 5XX	Organic Soil and Crop Management	3
ANS 5XX	Organic Animal Production Systems	3
AGRI 506 (Unit based on topic)	Capstone project	3
Electives		
HORT 456/556	Berry Physiology and Production	4
ZZZ 5XX.	Organic Foods in Health and Nutrition, Dietary Intakes and the Food Environment	3
HORT 5XX	Organic Horticulture Systems Management	3
HORT/CROP 5XX	Selection and Breeding for Organic Systems	3
SOIL/CROP 5XX	Organic System Management	3
BOT/ENT 55X	Integrated Pest Management for Organic Systems	3
ENT 5XX	Organic Bee Keeping and Honey Production	3
FCSJ 554	International Perspectives on Food Systems	3
ANTH 586	Anthropology of Food	3
AGRI 511	Food Systems	3

d. Manner in which the program will be delivered, including program location (if offered outside of the main campus), course scheduling, and the use of technology (for both on-campus and off-campus delivery).

All of courses for the Graduate Certificate in Organic Agriculture will be offered online, though some courses will also be offered on the main Oregon State University main campus. E-campus will provide basic course development and production, project management, training, and document accessibility solutions to the faculty developing and revising courses as a part of the Graduate Certificate in Organic Agriculture. E-campus technology and the assistance provided by E-campus will be used by the faculty to enhance the learning experience for students enrolled in the certificate program on and off campus.

Once the courses are developed, the courses will be offered each at least once each academic year to meet the timeline needs of graduates enrolled in the program.

e. Adequacy and quality of faculty delivering the program.

All project participants have PhD in their fields of study. In addition, we recruited additional outstanding OSU faculty to help with course development and delivery. Almost all faculty have long experience with teaching at graduate level and some have experience teaching in the area of Organic Food Production. In addition, all faculty participating in the course development are well respected researchers in the specific discipline/area they will teach.

f. Adequacy of faculty resources – full-time, part-time, adjunct.

All project participants are full time faculty at OSU. Most of the additionally recruited faculty and staff are full time, and some are part-time employees of OSU.

g. Other staff. – n.a.

h. Adequacy of facilities, library, and other resources.

Oregon State University: http://main.oregonstate.edu/about
Oregon State University is a leading research university. Founded in 1868, Oregon State is the state's Land Grant University and is one of only two universities in the U.S. to have Sea Grant, Space Grant and Sun Grant designations. Oregon State is also the only university in Oregon to hold both the Carnegie Foundation's top designation for research institutions and its prestigious Community Engagement classification.

As Oregon's largest public research university, with $261.7 million in external funding in the 2011 fiscal year, Oregon State's impact reaches across the state and beyond. With 12 colleges, 15 Agricultural Experiment Stations, 35 county Extension offices, the Hatfield Marine Sciences Center in Newport and OSU-Cascades in Bend, Oregon State has a presence in every one of Oregon's 36 counties, with a statewide economic footprint of $2.06 billion.

Oregon State welcomes a diverse student body of over 26,000 students from across Oregon, all 50 states and more than 100 countries. They can choose from more than 200 undergraduate and more than 80 graduate degree programs, including over 30 degrees online offered through Oregon State Ecampus. Oregon State increasingly attracts high-achieving students, with nationally recognized programs in areas such as conservation biology, agricultural sciences, nuclear engineering, forestry, fisheries and wildlife management, community health, pharmacy and zoology.

OSU Graduate School: http://gradschool.oregonstate.edu/admissions/
Graduate education is a journey unlike any other. It is the pursuit of an intellectual passion, the opportunity to gain professional expertise, and the gateway to even greater opportunities for your future.

The mission of Oregon State University is rooted in the land-grant university tradition: *the creation and discovery of knowledge in service to the public good*. OSU graduate students, join this dynamic mission where the most lively and rigorous minds of several generations work to create new technologies, revive traditional industries, conserve our natural resources, inform public policy, and enrich the cultural life of Oregon and the world.

OSU offers more than 80 different graduate degree programs in fields such as engineering, forestry, agriculture, physical and life sciences, health-related studies, humanities, social sciences, family and consumer sciences, business, and education.
OSU Extended Campus (Ecampus): http://ecampus.oregonstate.edu/about/
Oregon State University is a major research university located in the heart of Oregon's Willamette Valley. Through our comprehensive online degree and certificate programs, Oregon State Ecampus provides learners with access to a high-quality OSU education no matter where they live.

Oregon State is an accredited university, and all Ecampus courses are developed by experienced OSU faculty who use innovative course delivery strategies. All Ecampus graduates receive the same OSU diplomas as campus-based students.

OSU Ecampus is consistently ranked among the nation's top 25 providers of online education for the quality and strength of its programs. In each of the last two years, Ecampus was placed in the top 10 nationally – including No. 8 for the 2012-13 school year – by SuperScholar.org, which bases its rankings on "degree selection diversity … market credibility and prestige, academic quality, student support, and student satisfaction."

OSU Ecampus currently offers 16 undergraduate degrees online, 18 online minors, distance graduate degrees and programs and online chemistry labs and courses. OSU is also a member of the Natural Resources Distance Learning Consortium (NRDLC), which includes 10 universities that work together to provide online courses and degrees in natural resources for agency professionals.

Oregon State also offers Professional & Noncredit Education courses and programs online. OSU feature courses that are designed for working adults interested in certificate programs, short courses and workshops, and others are geared toward organizations wanting to develop customized training opportunities for their employees.

Ecampus online courses are perfect for taking a class for professional development or personal enrichment.

OSU College of Agricultural Sciences: http://agsci.oregonstate.edu/
The College of Agricultural Sciences at Oregon State University is Oregon's principal source of knowledge relating to agricultural and food systems, and a major source of knowledge regarding environmental quality, natural resources, life sciences, and rural economies and communities worldwide. The College provides undergraduate and graduate education leading to baccalaureate and graduate degrees, and extended education programs throughout Oregon and beyond. Its research programs create knowledge to solve problems and to build a knowledge base for the future. It is a source of information and expertise in integrating and applying knowledge with benefits that are felt in domestic and international settings.

Oregon State has a long and rich history! As the state's Land Grant University, Oregon State was created to serve the needs of the people. Beginning in 1870 as Corvallis College, agricultural and natural resource programs were offered and have been a vital component ever since.

i. Anticipated start date.
   Fall 2018

2. Relationship to Mission and Goals

a. Manner in which the proposed program supports the institution's mission, signature areas of focus, and strategic priorities.

The Graduate Certificate in Organic Agriculture supports the commitment of Oregon State University to teaching and outreach, while complementing the current faculty research in organic agriculture components. By offering this degree through OPSU Ecampus we will be able to draw together an audience currently working in or interested in organic agriculture from across the country and the globe. Organic agriculture is very closely tied to "place" and being able to exchange information regarding experiences in organic agriculture across "spaces" will be very informative for students and participating faculty. The study of organic agriculture requires synthesis across all three Signature Areas of Distinction. The curriculum is designed to further enhance connections between sustainable agricultural production

(Advancing the Science of Sustainable Earth Ecosystems), human health (Improving Human Health and Wellness), and marketing (Promoting Economic Growth and Social Progress).

b. Manner in which the proposed program contributes to institutional and statewide goals for student access and diversity, quality learning, research, knowledge creation and innovation, and economic and cultural support of Oregon and its communities.

Delivery of the Graduate Certificate in Organic Agriculture allows the citizens of Oregon to participate in furthering their education and employability from their current location. The program is designed to specifically meet stakeholder requests to allow further education of their employees in key areas of organic agriculture. Working with Ecampus the delivery of this material will utilize best practices in online delivery to enhance student success and learning. The curriculum also requires a capstone project which allows students to engage with employers and stakeholders in applied and on-the-ground studies to enhance their connection to the disciplinary content and employment.

c. Manner in which the program meets regional or statewide needs and enhances the state's capacity to:

i. improve educational attainment in the region and state;

Meetings with current employers in the organic agriculture sector, as well as other stakeholders has provided valuable input to guide the student learning outcomes of each course and the overall program. The curriculum is designed to enhance the education and employability of students from a diverse set of educational background. In addition, students will have course choices, which allow them to focus on their intended employment goals.

ii. respond effectively to social, economic, and environmental challenges and opportunities; and

The Graduate Certificate in Organic Agriculture addresses the sustainability of production practices directly, as well as human health through its diverse set of courses and personal choice of capstone project. Both of these allow students to gain deeper understanding of the food system from soil to shelf.

iii. address civic and cultural demands of citizenship.

The sustainability of our agricultural system and its connection to human health and wellness are critical to any society. Recent concerns over the use of chemicals in production, the sustainability of soil quality, and use of natural resources has brought the food system to the forefront of social interest and culture. In addition, the connection of food to human health hare highlighted by concerns of obesity, diabetes, and other health topics.

3. Accreditation

a. Accrediting body or professional society that has established standards in the area in which the program lies, if applicable.

There is no professional society accrediting body. The program will be accredited with other College of Agricultural Sciences and Oregon State University degree programs by the Northwest Commission on Colleges and Universities (NWCCU). The Oregon State Board of Higher Education has authorized the university to offer undergraduate and graduate level certificates, baccalaureate, master's, doctorate and first professional degrees.

b. Ability of the program to meet professional accreditation standards. If the program does not or cannot meet those standards, the proposal should identify the area(s) in which it is deficient and indicate steps needed to qualify the program for accreditation and date by which it would be expected to be fully accredited.

There is no professional society accrediting body.

c. If the proposed program is a graduate program in which the institution offers an undergraduate program, proposal should identify whether or not the undergraduate program is accredited and, if not, what would be required to qualify it for accreditation.

There is no current undergraduate degree program in organic agriculture at Oregon State. The Certificate is designed to allow students with diverse undergraduate degrees to pursue studies in this area. The College of Agricultural Sciences and Oregon State University offer a number of accredited undergraduate programs which provide undergraduate foundation degrees and excellent teaching and research faculty for this certificate, including Crop and Soil Science, Animal Sciences, Horticulture, and Nutrition and Health Sciences. The Graduate Certificate meets the requirements set by Oregon State University and its accrediting body, NWCCU.

d. If accreditation is a goal, the proposal should identify the steps being taken to achieve accreditation. If the program is not seeking accreditation, the proposal should indicate why it is not.

The Graduate Certificate will conduct annual assessment and program review as required by Oregon State University and the NWCCU for accreditation.

4. Need

a. Anticipated fall term headcount and FTE enrollment over each of the next five years.

- At least 20-60 students matriculated in the certificate program (in years 2 and 3)
- At least 20 additional students taking single courses developed in this program every year, including 10 OSU campus graduate students

b. Expected degrees/certificates produced over the next five years.

- At least 20-60 students matriculated in the certificate program every year after year 3

c. Characteristics of students to be served (resident/nonresident/international; traditional/ nontraditional; full-time/part-time, etc.).

We anticipate students with a variety of backgrounds to be served by this degree, including residents, nonresidents and international; traditional but mostly nontraditional; full-time and part-time students.

d. Evidence of market demand.

OSU Ecampus in collaboration with Eduventures (http://www.eduventures.com/) conducted a market research study for MSc and Graduate Certificate in Organic Agriculture and similar fields of study. This market research study was completed in February and March, 2016, (prior to project submission to USDA NIFA), and the results are available from PD Valtcho Jeliazkov upon request. Please note this market study encompasses face to face and online degrees. Since there are no current online MSc or graduate certificates in Organic Agriculture, the study focused on similar areas that might include organic curriculum. The key findings of this market research study are summarized below:

- "For Master's degrees, three of the four degree areas examined experienced positive growth between 2010 and 2014.
  - Agroecology and Sustainable Agriculture and Sustainability Studies, while having fewer providers, particularly experienced very high growth, meaning that there could be a potential demand among students for a Master's in Organic Agriculture.
  - Agriculture, General, while a more crowded market in terms of providers, has seen a gradual decline in Master's conferrals since 2010, though this decline may be starting to plateau (287 conferrals in 2013 versus 282 in 2014).
- Available data is inconclusive regarding the certificate market, though the data on the Master's market can provide insight into student interest.
  - There were no conferrals in Agriculture, General and Agriculture, Agriculture Operations and Related Sciences, Other in 2014 and only one provider conferring certificates in Agroecology and Sustainable Agriculture.
  - While there were 99 certificate conferrals in Sustainability Studies, most of these programs were unrelated to Organic Agriculture (i.e. Graduate Certificate in Sustainable Urban Planning and Graduate Certificate in Global Leadership and Sustainable Development.)
- When examining the top 2014 national providers, very few offer a degree or focus in Organic Agriculture/Farming.
  - The most similar Master's programs are reported to Agroecology and Sustainable Agriculture: Iowa State University's M.S. in Sustainable Agriculture and Green Mountain College's M.S. in Sustainable Food Systems (offered online). While both programs are small, they have experienced positive growth in conferrals.
  - Since both Green Mountain College and Washington State University did not report conferrals in 2010, they are likely new programs to the market.
- Most programs did not report a specialization in Organic Agriculture/Farming though occasionally have related courses available or noted activities related to the topic, such as organic farm projects for students and faculty research.
  - This may be evidence of a growing interest by students in this area.
- Regarding the labor market, all four occupations profiled are expected to experience positive growth between 2014 and 2024.
  - However, Farmers, Ranchers, and Other Agricultural Managers as well as Agricultural Inspectors are expected to grow slower than average."

e. If the program's location is shared with another similar Oregon public university program, the proposal should provide externally validated evidence of need (e.g., surveys, focus groups, documented requests, occupational/employment statistics and forecasts).

There is no other Graduate Certificate in Organic Agriculture at an Oregon public university.

f. Estimate the prospects for success of program graduates (employment or graduate school) and consideration of licensure, if appropriate. What are the expected career paths for students in this program?

The graduate certificate will be designed to better prepare people for careers in agricultural business, public/non-profit agricultural and natural resource professions, consulting, and farming. To our knowledge there is no such offering in North America and Europe. The credits earned in this graduate certificate will be counted towards further graduate degree in OA or similar field.

As indicated in the Expected Outcomes:

- Students are better qualified for employment as agricultural professionals in Organic Agriculture related businesses due to:
  - Increased understanding of how organic farming systems function

- o Enhanced capacity to solve organic farming system dilemmas
- o Improved ability to develop and evaluate organic systems management plans
- o Expanded awareness of careers in the organic food and agricultural professions.
- o Awareness of consumer interest and perceptions about organic food, and nutrient differences between organic and conventional foods
- The diversity and capacity of future agricultural professionals is increased
- Organic Food Production system productivity and sustainability are improved

5. Outcomes and Quality Assessment

a. Expected learning outcomes of the program.

1. Evaluate and apply the rules and regulations on the production, handling, labeling and enforcement of organic products;

2. Analyze the complex interactions in organically produced food systems across multiple perspectives and disciplines;

3. Appraise consumer sales and design marketing plans for organic agriculture;

4. Integrate knowledge of production management programs based on the conceptual and practical production management knowledge in the areas of organic crops, soils, livestock, and societal impacts;

5. Effectively communicated scientific, economic, and environmental impacts of organic products.

b. Methods by which the learning outcomes will be assessed and used to improve curriculum and instruction.

The project will evaluate the quality of the program including its impact on the capacity of the of the graduates from this certificated to be successful in the workplace through curriculum development evaluations (Quality Matters, E-campus), course evaluation (Student Evaluation of Teaching, OSU), exit interviews (Project Coordinator with Evaluator), and follow-up surveys where students will be interviewed on year after graduation about how well the program prepared them for their current position (Project Coordinator). Additionally, an Advisory Committee of stakeholders from the organic products industry is being formed to inform course development and to evaluate the program and its efficacy in increasing the knowledge and quality of employees as graduates move into the organic agriculture industry.

c. Nature and level of research and/or scholarly work expected of program faculty; indicators of success in those areas.

This will be in two areas:
(1) Student capstone projects. As indicated in the project proposal, "Student capstone projects will be deposited at OSU Library ScholarsArchive@OSU. Selected peer-reviewed student project manuscripts (with help from the project faculty) will be published in eOrganic/eXtension". In addition, the PD of the project will lead the development of review paper to compile the information in the student reports into a peer-review publication.

(2) Program coursework evaluation. As indicated in the project proposal, "Year 2 will see the delivery and evaluation of coursework. The focus will be on sharing experiences, evaluating the online courses and their implementation, and planning how to expand the graduate certificate program into a future online MSc program in OA." Project participants will utilize this information to develop a review manuscript to be published in a peer-review journal.

6. Program Integration and Collaboration

a. Closely related programs in this or other Oregon colleges and universities.

Currently, there are no online graduate programs in Organic Agriculture (OA) in the United States, although there are several undergraduate degree in OA offering institutions such as at Washington State University. Please see 4D Market Demand above, about the marketing study and similar programs across the nation.

b. Ways in which the program complements other similar programs in other Oregon institutions and other related programs at this institution. Proposal should identify the potential for collaboration.

The program complements current programs at OSU Crop and Soil Sci Department, Horticulture, Anthropology Dep at OSU College of Liberal Arts, OSU College of Public Health and Human Sciences. Some of the courses to be developed within this certificate program may also be taken by students from other colleges. Also, the certificate program will utilize already developed or to be developed online courses by other OSU colleges. Therefore, the Online Graduate Certificate in OA program will quickly develop relevant collaborations with other programs within the OSU.

c. If applicable, proposal should state why this program may not be collaborating with existing similar programs.

The program will be collaborating with other existing programs.

d. Potential impacts on other programs.

The potential impact on other OSU programs is expected to be positive. This Online Graduate Certificate in Organic Agriculture will develop more than 10 graduate level courses that can be taken by students enrolled in other programs.

7. External Review

If the proposed program is a graduate level program, follow the guidelines provided in *External Review of New Graduate Level Academic Programs* in addition to completing all of the above information.

See attached Letter of Support