CALS Curriculum Committee Meeting
November 20, 2020
2:00 p.m.

Via Zoom: https://ufl.zoom.us/j/355458614
Meeting ID : 355458614

Members: S. Ahn, J. Brendemuhl, D. Coenen, D. Gabriel, M. Gillen, V. Hull, P. Inglett, J. Larkin, L. Lundy, T. Martin, G. Nunez, K. Padgett-Pagliai, B. Pearson, W. Porter, N. Roberts, J. Scheffler, M. Sharp, J. Weeks (Chair), C. Wilson, A. Wysocki

Agenda and Index for Materials

Approve Minutes from October 23, 2020 meeting

Dr. Brendemuhl: Update from UCC

Graduate New Course Proposal

1. FOS 6XXX – Food Safety Systems (req. #15356)

Undergraduate New Course Proposal

2. FOS 4XXX – Principles of Food Safety Systems (req. #15355)

Certificate

3. Proposed Applications in AI-based SmartAg Systems Graduate Certificate (req. #15255)

Discussion

4. Proposed DEI addition to CALS Syllabus Statements

CALS Curriculum Committee Meeting
October 23, 2020
Submitted by James Fant

Members Present: S. Ahn, J. Brendemuhl, D. Coenen, D. Gabriel, M. Gillen, V. Hull, P. Inglett, J. Larkin, L. Lundy, T. Martin, G. Nunez, K. Padgett-Pagliai, B. Pearson, W. Porter, J. Scheffler, M. Sharp, J. Weeks,

Call to Order: The College of Agricultural and Life Sciences Curriculum Committee met via Zoom on October 23, 2020. Dr. Inglett called the meeting to order at 2:00 p.m.

Previous agenda items and supporting material can be found on the CALS College Committees homepage under document archives: https://cals.ufl.edu/faculty-staff/committees/

Approval of Minutes: A motion was made by Dr. Porter to approve the minutes from the September 25, 2020 meeting of the CALS CC. The motion was approved.

All items approved by the committee will be forwarded to either the Graduate Curriculum Committee (GCC), Graduate Council (GC) or the University Curriculum Committee (UCC) once any changes requested are made and the submission is complete.

Links: Grades – https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/
Syllabus Statements – https://cals.ufl.edu/content/PDF/Faculty_Staff/CALS-Syllabus-Policy.pdf
Absences & Make-Ups – https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx
Writing Learning Objectives - https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-course-objectives.pdf.

Update from UCC: Dr. Brendemuhl noted the following were **ALL APPROVED** at the **OCTOBER UCC** meeting; 1) **New Courses** – FYC 4XXX-Children: Trauma and Resiliency; MCB 4XXX-Applications and Technologies of Synthetic Biology; ORH 4804C-Annual and Perennial Gardening; WIS 4XXX-The Ecology of Climate Change; WIS 4XXX-Wetland Management (joint); ANS 4XXX-Genetic Analyses of Complex Traits in Livestock (joint); AEC 6XXX-Developing and Conducting Needs Assessment in Extension Settings; AGR 6XXX-Supervised Extension-Agronomy; AGR 6XXX-Plant Chromosomes and Genomes; SWS 6XXX-Professional Development in Soil, Water, and Ecosystem Sciences; and WIS 6XXX-Professional Communication in Wildlife Forensics Sciences. 2) **Changes to Courses** – ENY 4210-Insects and Wildlife. 3) **New Certificates –** Biosecurity and Biological Invasions (UG). 4) **Revised Certificates –** Plant Pest Risk Assessment and Management (GR). 5) **Academic Assessment Plans –** Forest Health and Resilience (GR); and 6) **General –** Name change for SFRC (School of Forest, Fisheries, and Geomatics Sciences. Other information included changes to the fall 2020 and spring 2021 academic calendars.

Undergraduate Certificate Proposal

1. Proposed Agroecology and Sustainable Food Systems Undergraduate Certificate (req. #15292)

A motion was made by Dr. Porter to approve this item with edits required. The motion was approved. Please remember to make edits to all documents submitted where necessary. The prerequisite section for the courses where it just states junior standing or sophomore standing need to have "or higher" added. An outside consultation from Horticultural Sciences is requested and a follow up conversation with Food and Resource Economics concerning the appropriate AEB courses to be included.

Curriculum

2. Proposed Soil and Water Sciences Research Concentration (req. #15272)

This item was reviewed along with item #3. All comments apply to both submissions unless otherwise stated. A motion was made by Dr. Porter to approve these items as submitted. The motion was approved.

3. Proposed Soil and Water Sciences MS Professional Concentration (req. #15273)

See item #2.

Recycled item

4. FOR 6XXX – Bark and Ambrosia Beetles (req. #14650)

This item was withdrawn by the department prior to the meeting.

Tabled item

5. Dr. Turner has asked that the committee to consider if a statement on diversity, equity and Inclusion should be added to the CALS Syllabus Statements.

Dr. Porter made a motion to approve the concept of this item. The motion was approved. Many edits and additions to the document were proposed. Dr. Brendemuhl took note of these suggestions and will make edits to the document. Once updated the document will be presented to the CALS Curriculum Committee members and Dr. Turner for her review.

Selection of Chair-Elect

All committee members who plan to serve during the 2021-2022 academic year are eligible. As chair you would be expected to serve from November 2021 through October 2022. Nominations or volunteers are appreciated.

A nomination for Dr. Larkin to serve as the next Chair-Elect was made by Dr. Sharp. Dr. Larkin accepted his nomination and the nomination was approved.

The meeting was adjourned at **2:56** p.m.

Cover Sheet: Request 15356

Food Safety Systems - New graduate course proposal

Info

Process	Course|New|Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Soohyoun Ahn sahn82@ufl.edu
Created	10/20/2020 1:57:00 PM
Updated	11/9/2020 11:06:36 AM
Description of request	This course has been taught as FOS6936. Instructors are seeking a permanent course number.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Food Science and Human Nutrition 60150000	Susan Percival		10/20/2020
CALS CC Checklist-FOS6xxx.pdf FOS 6936 syllabus 2020.docx					10/20/2020 10/20/2020
College	Pending	CALS - College of Agricultural and Life Sciences			10/20/2020
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

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Course|New for request 15356

Info

Request: Food Safety Systems - New graduate course proposal
Description of request: This course has been taught as FOS6936. Instructors are seeking a permanent course number.
Submitter: Soohyoun Ahn sahn82@ufl.edu
Created: 10/19/2020 2:34:41 PM
Form version: 1

Responses

Recommended Prefix FOS
Course Level 6
Course Number xxx
Category of Instruction Joint (Ugrad/Grad)
Lab Code None
Course Title Food Safety Systems
Transcript Title Food Safety Systems
Degree Type Graduate

Delivery Method(s) On-Campus
Co-Listing Yes
Co-Listing Explanation This course is for undergraduate and graduate students who are interested in pursuing careers in food safety management and quality control. Both undergraduate and graduate students will have 3 exams about the content presented in the lectures, which accounts for 60% of their final grade. Both undergrads and grads will be required to develop a food safety plan that address process control for a given food product and give a presentation and write a report (40% for undergraduates, 20% for graduate students). In addition, graduate students must work on a food safety plan addressing sanitation preventive controls (10% of grade) and food allergen preventive controls (10% of grade), which will be graded on a combination of class presentation and report. This project (40% of the final grade) will be an iterative process that will result in a comprehensive overview of the Food Safety Plan development and maintenance under the Food Safety Modernization Act of 2011, which is a major learning objective for this course.
Effective Term Fall
Effective Year Earliest Available
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 2

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 2
Course Description This course is designed to cover 1) current issues in food supply chain including security and safety in domestic and international food industry, 2) various food safety control systems, 3) principles of HACCP and FSMA Preventive controls. The course also provides hands-on practice in developing a food safety plan.
Prerequisites FOS3042
Co-requisites N/A
Rationale and Placement in Curriculum Food safety systems have become one of the most critical areas in Food Science. This course was specifically designed for students who are interested in careers in food quality control and food safety. Understanding key concepts to develop and manage food safety systems is highly desirable for food safety professionals, and this skill will keep students competitive in their careers in food safety and quality. This course provides an overview of food safety hazards and control measures, and develops skills in critical thinking of applying food safety principles in various real-life examples that are found in food processing industry.
Course Objectives After completing this course, students should be able to:
1. Recognize the importance of food safety to protect public health.

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2. Identify the types of hazards, and list the factors promoting those hazards.
3. Describe the importance of food safety in domestic and international food trade.
4. List and describe 7 principles of the HACCP system as a food protection tool.
5. Discuss the importance of risk analysis in food safety and how risk analysis can be done in food industry.
6. Identify hazards and develop process preventive controls for FSMA Food Safety Plan with a given food product example.
7. Develop a comprehensive food safety plan based on risk analysis and preventive controls under the FSMA Preventive Controls for Human Food Rule.
8. Describe the role of federal, state and local jurisdictions in regulating and monitoring food safety and security assurance.

Course Textbook(s) and/or Other Assigned Reading There is no required textbook for this course. However, following books are recommended as good resources for this course:

- FSMA and Food Safety Systems (Barach), Wiley
- HACCP: A Practical Approach, 3rd Ed. (Moltimore and Wallace), Springer
- Food Safety Management (King), Springer

These books can be accessed through library course reserves.
Supplemental reading materials will be posted on Canvas through each module page.
These materials include, but are not limited to 1) articles from recent literature; 2) regulations and/or guidance from government agencies (e.g. USDA FSIS and FDA); and 3) publications from food safety organizations (e.g. GFSI, FSSC).

Sample of these additional reading materials are listed below:

- "Quality Control: a model program for the food industry" 2010. WC Hurst, PT Tybor, AE Reynolds, and GA Schuler. University of Georgia, Cooperative Extension. (https://athenaeum.libs.uga.edu/bitstream/handle/10724/12251/B997.pdf)
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"Microbiological Criteria: Principles for their establishment and application in food quality and safety" 2020. L Perez-Lavalle, E Carrasco, and A Valero. 2020. Italian Journal of Food Safety, 9:8543. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7154603/)

- "Writing Sanitation Standard Operating Procedures (SSOPs)" 2018. KE Kaylegian, Penn State Extension.(https://extension.psu.edu/writing-sanitation-standard-operating-procedures-ssops)
- “Sanitation Standard Operating Procedures” 2019. USDA Food Safety and Inspection Service (FSIS). (https://www.fsis.usda.gov/wps/wcm/connect/4cafe6fe-e1a3-4fcf-95ab-bd4846d0a968/13a_IM_SSOP.pdf?MOD=AJPERES)
- “Understanding the Basics of Food Safety Regulations” 2018. D Detwiler, Northeastern University. (https://www.northeastern.edu/graduate/blog/understanding-basics-food-safety-regulations/)
- “A Historical Look at Food Safety" 2020. IFT Brain Food Blog (https://www.ift.org/news-and-publications/blog/2019/september/a-historical-look-at-food-safety)
- “Hazard Analysis and Risk-based Preventive Controls for Human Food: Draft Guidance for Industry” Chapter 1. The Food Safety Plan. 2018. FDA (https://www.fda.gov/media/99547/download)
- "FSMA Final Rule on Produce Safety" 2020 FDA. (https://www.fda.gov/food/food-safety-modernization-act-fsma/fsma-final-rule-produce-safety)
- "Auditing Food Safety" 2018. IFT. (https://www.ift.org/news-and-publications/food-technology-magazine/issues/2018/april/columns/food-safety-and-quality-auditing-food-safety)
- “The Role of Auditing, Food Safety, and Food Quality Standards in the Food Industry: A Review” 2017. KV Kotsanopoulos and IS Arvanitoyannis. Comprehensive Reviews in Food Science and Food Safety, 16(5): 760-775 (https://onlinelibrary.wiley.com/doi/full/10.1111/1541-4337.12293)

Weekly Schedule of Topics Week/ Module (Topic)
Week 1: Course Introduction; Food Safety Systems Overview
Week 2: Quality Control
Week 3: Prerequisite Programs (GMPs and SSOPs)
Week 4: Food Safety Regulations
Week 5: Introduction to HACCP
Week 6: HACCP Principles
Week 7: FSMA and Food Safety Plan Overview; Hazard Analysis
Week 8: Process Preventive Controls; Allergen Preventive Controls; Sanitation Preventive Controls
Week 9: Supply Chain Preventive Controls & Verification; Food Safety Plan Review
Week 10: Recall Plan

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Week 11: FSMA Produce Safety Rule
Week 12/13: Auditing and Inspection; GFSI and other food safety systems
Week 14/15: Final Project presentations
Grading Scheme In-class exams (3)* 60% (20% each)
Final Group Project (in lieu of final exam) 40%
Total 100%
*Each In-class exam will cover approximately 1/3 of the course materials and be equally weighted.

Grading Scale:
A= 89.5-100.0
B+= 86.5-89.4
B= 82.5-86.4
B-=79.5-82.4
C+= 76.5- 79.4
C= 72.5- 76.4
C-= 69.5- 72.4
D+=66.5-69.4
D=62.5-66.4
D-=59.5-62.4
E= <59.5

Final Group Project Details:
Students will be assigned to work in a group of 3-4 (depending on the final enrollment number). Each group will be given a specific food product scenario, and work together to develop a HACCP plan or Food Safety Plan under the FSMA Preventive Controls for Human Food Rule (based on your product). This will be an iterative process that will result in a comprehensive overview of the HACCP/Food Safety Plan development and maintenance, which is a major learning objective for this course.
Each group is encouraged to organize an online meeting or use discussion section on Canvas. If you need any assistance in organizing an online meeting, ask for help to instructors.

Grading rubric for Final Group Project:
Topic (Possible Points)
1. Preliminary steps – Include ingredients, product description, and expected consumer (5)
2. Flow chart – Include all process inputs (10)
3. Hazards analysis for product/process - Use the provided form (15)
4. HACCP/PC plan – Use the provided form (30) - Process PC only
5. HACCP Presentation (20)
6. Report organization and quality– Include overall plan summary (15)
7. Participation - graded individually (Use the provided form) (5)
8. (Grad Only) – HACCP/PC plan for Sanitation PC (25)
9. (Grad Only) – HACCP/PC plan for Sanitation PC (25)

Instructor(s) Soohyoun Ahn; Renee Goodrich
Attendance & Make-up Yes
Accomodations Yes
UF Grading Policies for assigning Grade Points Yes
Course Evaluation Policy Yes

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CALS Curriculum Committee
Submission Checklist

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (https://approval.ufl.edu/). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as "Proposal of a new undergraduate course" is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

_*SA*_ It is required when making a submission that you consult your department's representative to the CALS CC. A list of current members can be found on the committee site located at: https://cals.ufl.edu/faculty-staff/committees/.

_*SA*_ You MUST comply with the CALS Syllabus Policy, including items 1 through 8 and all standard syllabus statements. This document can be viewed at the committee site(https://cals.ufl.edu/faculty-staff/committees/) by clicking on the Curriculum Committee – Information & Documents heading and scrolling down to Forms, Checklists, and Other documents. The other items included here are all very helpful when making a curriculum submission. Some will be mentioned in other checklist items below.

_*SA*_ Joint course submissions must include both graduate and undergraduate syllabuses and a separate statement outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

_*SA*_ The course description on the UCC form and in the syllabus must match. Any other information you wish to include needs to be under a different heading such as background or additional information.

_*SA*_ The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-course-objectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

_*SA*_ The course schedule should be concise and include the appropriate number of weeks in the semester.

Original file: CALS CC Checklist-FOS6xxx.pdf

_***SA***_ All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

_**N/A**_ Outside consultations are required if there is a possibility of the proposed course covering material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: https://registrar.ufl.edu/pdf/uccconsult.pdf.

_***SA***_ Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable.

_***SA***_ Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

_***SA***_ The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this is included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

_***SA***_ The most recent version of the CALS Syllabus Statements boiler plate must be included in all syllabuses. This document is included in the CALS Syllabus Policy and can be copied and pasted to the syllabus. Do not use the boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Joel Brendemuhl (brendj@ufl.edu) for further instruction)

Original file: CALS CC Checklist-FOS6xxx.pdf

FOS 6XXX
Food Safety Systems

Course Hours & Location:

TR 5th Period (11:45 am to 12:35 pm)
Location: TBA

Instructors:

Dr. Soohyoun (Soo) Ahn (course organizer)
Food Science and Human Nutrition
Room 104A, Bldg. 120
E-mail: sahn82@ufl.edu (please, allow 24-48 hrs for a reply)
Phone: 352-294-3710
Office hours: M/T/R 9:00 to 10:30 am, all other times – by appointment only

Dr. Renee Goodrich-Schneider
Food Science and Human Nutrition
Room 329, FSHN Bldg.
E-mail: goodrich@ufl.edu (please, allow 24-48 hrs for a reply)
Phone: 352-294-3726
Office hours: W/R 1:00 to 3:00 pm, all other times – by appointment only.

Course Description:

This course is designed to cover 1) current issues in food supply chain including security and safety in domestic and international food industry, 2) various food safety control systems, 3) principles of HACCP and FSMA Preventive controls. The course also provides hands-on practice in developing a food safety plan.

Course Objectives and Learning Goals:

After completing this course, students should be able to:

1. Recognize the importance of food safety to protect public health.
2. Identify the types of hazards, and list the factors promoting those hazards.
3. Describe the importance of food safety in domestic and international food trade.
4. List and describe 7 principles of the HACCP system as a food protection tool.
5. Discuss the importance of risk analysis in food safety and how risk analysis can be done in food industry.

6. Identify hazards and develop process preventive controls for FSMA Food Safety Plan with a given food product example.
7. Develop a comprehensive food safety plan based on risk analysis and preventive controls under the FSMA Preventive Controls for Human Food Rule.
8. Describe the role of federal, state and local jurisdictions in regulating and monitoring food safety and security assurance.

Textbook and Additional Reading Materials:

There is no required textbook for this course. However, following books are recommended as good resources for this course:

- FSMA and Food Safety Systems (Barach), Wiley
- HACCP: A Practical Approach, 3rd Ed. (Moltimore and Wallace), Springer
- Food Safety Management (King), Springer

These books can be accessed through library course reserves.

Supplemental reading materials will be posted on Canvas through each module page.

These materials include, but are not limited to 1) articles from recent literature; 2) regulations and/or guidance from government agencies (e.g. USDA FSIS and FDA); and 3) publications from food safety organizations (e.g. GFSI, FSSC).

Sample of these additional reading materials are listed below:

- "Quality Control: a model program for the food industry" 2010. WC Hurst, PT Tybor, AE Reynolds, and GA Schuler. University of Georgia, Cooperative Extension. (https://athenaeum.libs.uga.edu/bitstream/handle/10724/12251/B997.pdf)
- "Microbiological Criteria: Principles for their establishment and application in food quality and safety" 2020. L Perez-Lavalle, E Carrasco, and A Valero. 2020. Italian Journal of Food Safety, 9:8543. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7154603/)
- "Writing Sanitation Standard Operating Procedures (SSOPs)" 2018. KE Kaylegian, Penn State Extension.(https://extension.psu.edu/writing-sanitation-standard-operating-procedures-ssops)
- "Sanitation Standard Operating Procedures" 2019. USDA Food Safety and Inspection Service (FSIS). (https://www.fsis.usda.gov/wps/wcm/connect/4cafe6fe-e1a3-4fcf-95ab-bd4846d0a968/13a_IM_SSOP.pdf?MOD=AJPERES)
- "Understanding the Basics of Food Safety Regulations" 2018. D Detwiler, Northeastern University. (https://www.northeastern.edu/graduate/blog/understanding-basics-food-safety-regulations/)
- "A Historical Look at Food Safety" 2020. IFT Brain Food Blog (https://www.ift.org/news-and-publications/blog/2019/september/a-historical-look-at-food-safety)

- “Hazard Analysis and Risk-based Preventive Controls for Human Food: Draft Guidance for Industry” Chapter 1. The Food Safety Plan. 2018. FDA (https://www.fda.gov/media/99547/download)
- "FSMA Final Rule on Produce Safety" 2020 FDA. (https://www.fda.gov/food/food-safety-modernization-act-fsma/fsma-final-rule-produce-safety)
- "Auditing Food Safety" 2018. IFT. (https://www.ift.org/news-and-publications/food-technology-magazine/issues/2018/april/columns/food-safety-and-quality-auditing-food-safety)
- “The Role of Auditing, Food Safety, and Food Quality Standards in the Food Industry: A Review” 2017. KV Kotsanopoulos and IS Arvanitoyannis. Comprehensive Reviews in Food Science and Food Safety, 16(5): 760-775 (https://onlinelibrary.wiley.com/doi/full/10.1111/1541-4337.12293)

Course Format:

Students will acquire knowledge of the current food safety issues and various systems to control these issues through the lectures, class discussions, reading, and assignments.

Fall 2020 only*: In Fall 2020, the lectures will be delivered 100% online due to the current pandemic. This will be a synchronous online course, in which the lectures are delivered through live online lectures on its class time. All lectures will be delivered through zoom meetings. If there is any issue during the lecture time (e.g. internet outage), lecture recordings will be provided as an alternative.

***COVID Response Statements (Fall 2020 only):**

Our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the “chat” feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Instruction Method:

The course is divided into 10 modules. Each week, students will get access to a new page that contains materials for the given week. Each page consists of a link to video lectures, presentation slides and handouts, recommended reading materials, and additional supplementary materials (videos and/or readings) relevant to the module.

The best way to study the course materials in each module is to begin with the learning goals. It will help you understand the important learning points for that specific module. Next, attend class. I recommend to print out the presentation handout prior to the lecture and take notes during the lecture. Presentation slides is a simple summary of what is being explained in the lecture. Much more details are explained in the lecture, and it will be helpful to take notes during the lecture.

Then, read the assigned reading materials or watch the supplementary videos that are posted (if any). These materials will provide details and support the lecture and expand your scope of learning. This course does not have a required textbook, but has recommended textbooks, which are electronically available through the course reserves.

Grading:

In-class exams (3)*	60% (20% each)
Final Group Project (in lieu of final exam)	
- Process PC	20%
- Sanitation PC	10%
- Food allergen PC	10%
Total	**100%**

*Each In-class exam will cover approximately 1/3 of the course materials and be equally weighted.

Grading scale:

Grade	**A**	**B+**	**B**	**B-**	**C+**	**C**	**C-**	**D+**	**D**	**D-**	**E**
Course Average %	89.5-100.0	86.5-89.4	82.5-86.4	79.5-82.4	76.5-79.4	72.5-76.4	69.5-72.4	66.5-69.4	62.5-66.4	59.5-62.4	<59.5

For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/.

Group Project Details:

Students will be assigned to work in a group of 2-3 (depending on the final enrollment number). Each group will be given a specific food product scenario, and work together to develop a HACCP plan or Food Safety Plan under the FSMA Preventive Controls for Human Food Rule (based on your product). This will be an iterative process that will result in a comprehensive overview of the HACCP/Food Safety Plan development and maintenance, which is a major learning objective for this course.
Each group is encouraged to organize an online meeting or use discussion section on Canvas. If you need any assistance in organizing an online meeting, ask for help to instructors.

Policy regarding Make-up exam / Late work submission:

Each exam will be given as scheduled in course outline (see below). Students must take the exams on the day scheduled. Make-up exams will be allowed only for the case of verifiable emergencies or legitimate reasons (illness, family emergency)**.** In those excusable circumstances, students should notify the instructor PRIOR TO the scheduled exam and provide proper proof afterwards. Instructor will refuse to give a chance to take a make-up exam unless a student provides the proof that the absence was excusable. All make-up exams MUST be taken within two days of the scheduled exam, whenever possible.

Due date will be given in advance for the project. All work must be completed by the designated due dates. No late work will be accepted unless arrangement is made with the instructor beforehand.

Attendance Policy:

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/.

Technology requirements:

Students must use their Gatorlink email account for this course. Students are recommended to check their email account daily for the duration of the course.

For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at:

- learning-support@ufl.edu
- (352) 392-4357 - select option 2
- lss.at.ufl.edu

Communication Policy:

Students will have multiple channels to communicate with instructors:

- E-mails (either direct emailing or through Canvas mail)
- Canvas course page - Q&A forum in Discussion
- After the lecture, instructors will be available to take any questions
- During the lecture, students can ask questions using “Chat” function in Zoom (Online lecture only)

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats.

Academic Honesty:

Student Honor and Conduct Code from University of Florida will be enforced on the case of infringement of academic integrity, including **plagiarism, cheating and prohibited collaboration or consultation**. Details can be found at: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/.

Disability Clause:

The Disability Resource Center provides services to students with physical, learning, sensory or psychological disabilities. These services include registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, and mediating any other disability-related issues. Disability Resource Center can be reached at 352-392-8565 or accessUF@ufsa.ufl.edu, and is located at 0001 Building 0020 (Reid Hall). Detailed information is available at: https://disability.ufl.edu/.

Software Policy:

All faculty, staff, and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Course Evaluation:

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expectedto provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, intheir Canvas course menu under GatorEvals, or viahttps://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at: https://gatorevals.aa.ufl.edu/public-results/

Online Security and Privacy Protection:

It is critical to protect your data and privacy. Since we use several online tools for this course (Canvas, Honorlock, Zoom), you should be mindful of protecting your own data.

- Do not share your personal information online.
- Do not share the password for zoom lectures (We don't want any stranger in our virtual classroom!)
- We will not record the zoom lectures, but if there is any need to record the lecture, you will be notified so you could turn off your camera if you don't want to get recorded.

For information about the privacy policies of the tools used in this course, see the links below:

- Instructure (Canvas)
  - Privacy Policy
  - Accessbility
- Zoom
  - Privacy Policy
  - Accessibility
- Honorlock
  - Privacy Policy
  - Accessibility

Campus Resources for Students:

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling& Wellness Centerprovidesconfidential counseling services at no cost for currently enrolled students. Resources are available on campus for students havingpersonal problems or lacking clear career or academic goals, which interfere with their academic performance.

Health and Wellness:

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit umatter.ufl.edu/ to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit counseling.ufl.edu/ or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit shcc.ufl.edu/.
- University Police Department: Visit https://police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room/Trauma Center: For immediate medical care, call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; https://ufhealth.org/emergency-room-trauma-center.

Academic Resources

- E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail athelpdesk@ufl.edu.

- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services; https://career.ufl.edu/.
- Library Support: various ways to receive assistance with respect to using the libraries or finding resources; https://cms.uflib.ufl.edu/ask
- Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring; https://teachingcenter.ufl.edu/
- Writing Studio:2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers; https://writing.ufl.edu/writing-studio/
- Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor- code-student-conduct-code/On-Line Students Complaints: https://distance.ufl.edu/student-complaint-process/

Flexibility Clause: Circumstances may arise during the course that may prevent the instructor from fulfilling each and every component of this syllabus; therefore, syllabus should be viewed as a guide and is subject to change. Students will be notified of any changes.

Tentative Course Outline:

Detailed course schedules are shown below. Please note that this represents current plans. As we go through the semester, these plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Module 1 – Course Introduction and Overview (wk 1)
Module 2 – Quality Control (wk 2)
Module 3 – Pre-requisites (wk 3)
Module 4 – Food Safety Regulations (wk 4)
Module 5 – HACCP (wk 5-6)
Module 6 – FSMA and Preventive Controls (wk 7-10)
Module 7– FSMA Produce Safety (wk 11)
Module 8 – Auditing and Inspection (wk 12)
Module 9 – Other systems (wk 12)
Module 10- Project work and presentation (wk 14-15)

Detailed outline and weekly course schedule is shown below:

Week (Dates)	Module /Topic	Assignments & Exams
1 **(Sep 1, 3)**	• Course introduction (Ahn/Goodrich) • Food Safety Systems Overview (Ahn)	
2 **(Sep 8, 10)**	• Quality Control (Guest lecture by Dr. Sims)	
3 **(Sep 15, 17)**	• Pre-requisites: GMPs and SSOPs (Ahn)	
4 **(Sep 22, 24)**	• Food Safety Regulations (Ahn)	
5 **(Sep 29, Oct 1)**	• Exam 1 • Intro to HACCP (Goodrich)	**Exam 1 (Sep 29)**
6 **(Oct 6, 8)**	• HACCP Principles (Goodrich)	
7 **(Oct 13, 15)**	• FSMA and Food Safety Plan overview (Ahn) • FSMA PC – Hazard analysis (Ahn)	
8 **(Oct 20, 22)**	• FSMA PC – Process Control (Ahn) • FSMA PC – Allergen & Sanitation Control (Ahn)	
9 **(Oct 27, 29)**	• FSMA PC – Supply Chain Control & Verification (Ahn) • FSMA PC – Food Safety Plan Review & Project Introduction (Ahn/Goodrich)	**Oct 29: Final Project Assignment posted (Due Dec 8)**
10 **(Nov 3, 5)**	• 6.7. FSMA PC - Recall Plan (Ahn) • Exam 2	**Exam 2 (Nov 5)**
11 **(Nov 10, 12)**	• FSMA Produce Safety Rule (TBA)	
12 **(Nov 17, 19)**	• Auditing and Inspection (Goodrich) • GFSI and other food safety systems (Goodrich)	
13 **(Nov 24)**	• Exam 3	**Exam 3 (Nov 24)**
14/15 **(Dec 1, 3, 8)**	• Final Project Presentation	**Final Project Presentation (Dec 1, 3, 8)** **Final Project Report (Due Dec 8)**

Cover Sheet: Request 15355

Principles of Food Safety Systems - New undergraduate course proposal

Info

Process	Course|New|Ugrad/Pro
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Soohyoun Ahn sahn82@ufl.edu
Created	10/20/2020 1:55:17 PM
Updated	11/9/2020 11:06:13 AM
Description of request	This course has been taught as FOS4936. Instructors are seeking a permanent course number.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Food Science and Human Nutrition 60150000	Susan Percival		10/20/2020
CALS CC Checklist-FOS4xxx.pdf FOS 4936 syllabus 2020.docx					10/20/2020 10/20/2020
College	Pending	CALS - College of Agricultural and Life Sciences			10/20/2020
No document changes					
University Curriculum Committee					
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Original file: Cover sheet.pdf

Course|New for request 15355

Info

Request: Principles of Food Safety Systems - New undergraduate course proposal
Description of request: This course has been taught as FOS4936. Instructors are seeking a permanent course number.
Submitter: Soohyoun Ahn sahn82@ufl.edu
Created: 4/24/2018 8:46:59 AM
Form version: 1

Responses

Recommended Prefix FOS
Course Level 4
Number XXX
Category of Instruction Joint (Ugrad/Grad)
Lab Code None
Course Title Principles of Food Safety Systems
Transcript Title Prin Food Safety Sys
Degree Type Baccalaureate

Delivery Method(s) On-Campus
Co-Listing Yes
Co-Listing Explanation This course is for undergraduate and graduate students who are interested in pursuing careers in food safety management and quality control. Both undergraduate and graduate students will have 3 exams about the content presented in the lectures, which accounts for 60% of their final grade. Both undergrads and grads will be required to develop a food safety plan that address process control for a given food product and give a presentation and write a report (40% for undergraduates, 20% for graduate students). In addition, graduate students must work on a food safety plan addressing sanitation preventive controls (10% of grade) and food allergen preventive controls (10% of grade), which will be graded on a combination of class presentation and report. This project (40% of the final grade) will be an iterative process that will result in a comprehensive overview of the Food Safety Plan development and maintenance under the Food Safety Modernization Act of 2011, which is a major learning objective for this course.
Effective Term Fall
Effective Year Earliest Available
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 2

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 2
Course Description This course is designed to cover 1) current issues in food supply chain including security and safety in domestic and international food industry, 2) various food safety control systems, 3) principles of HACCP and FSMA Preventive controls. The course also provides hands-on practice in developing a food safety plan.
Prerequisites FOS3042
Co-requisites None
Rationale and Placement in Curriculum Food safety systems have become one of the most critical areas in Food Science. This course was specifically designed for students who are interested in careers in food quality control and food safety. Understanding key concepts to develop and manage food safety systems is highly desirable for food safety professionals, and this skill will keep students competitive in their careers in food safety and quality. This course provides an overview of food safety hazards and control measures, and develops skills in critical thinking of applying food safety principles in various real-life examples that are found in food processing industry.
Course Objectives After completing this course, students should be able to:
1. Recognize the importance of food safety to protect public health.

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2. Identify the types of hazards, and list the factors promoting those hazards.
3. Describe the importance of food safety in domestic and international food trade.
4. List and describe 7 principles of the HACCP system as a food protection tool.
5. Discuss the importance of risk analysis in food safety and how risk analysis can be done in food industry.
6. Identify hazards and develop process preventive controls for FSMA Food Safety Plan with a given food product example.

Course Textbook(s) and/or Other Assigned Reading There is no required textbook for this course. However, following books are recommended as good resources for this course:
- FSMA and Food Safety Systems (Barach), Wiley
- HACCP: A Practical Approach, 3rd Ed. (Moltimore and Wallace), Springer
- Food Safety Management (King), Springer

These books can be accessed through library course reserves.
Supplemental reading materials will be posted on Canvas through each module page.
These materials include, but are not limited to 1) articles from recent literature; 2) regulations and/or guidance from government agencies (e.g. USDA FSIS and FDA); and 3) publications from food safety organizations (e.g. GFSI, FSSC).

Sample of these additional reading materials are listed below:
- "Quality Control: a model program for the food industry" 2010. WC Hurst, PT Tybor, AE Reynolds, and GA Schuler. University of Georgia, Cooperative Extension. (https://athenaeum.libs.uga.edu/bitstream/handle/10724/12251/B997.pdf)
- "Writing Sanitation Standard Operating Procedures (SSOPs)" 2018. KE Kaylegian, Penn State Extension.(https://extension.psu.edu/writing-sanitation-standard-operating-procedures-ssops)
- “A Historical Look at Food Safety" 2020. IFT Brain Food Blog (https://www.ift.org/news-and-publications/blog/2019/september/a-historical-look-at-food-safety)
- “Hazard Analysis and Risk-based Preventive Controls for Human Food: Draft Guidance for Industry” Chapter 1. The Food Safety Plan. 2018. FDA (https://www.fda.gov/media/99547/download)
- "FSMA Final Rule on Produce Safety" 2020 FDA. (https://www.fda.gov/food/food-safety-modernization-act-fsma/fsma-final-rule-produce-safety)
- "Auditing Food Safety" 2018. IFT. (https://www.ift.org/news-and-publications/food-technology-magazine/issues/2018/april/columns/food-safety-and-quality-auditing-food-safety)

Weekly Schedule of Topics Week/ Module (Topic)
Week 1: Course Introduction; Food Safety Systems Overview
Week 2: Quality Control
Week 3: Prerequisite Programs (GMPs and SSOPs)
Week 4: Food Safety Regulations
Week 5: Introduction to HACCP
Week 6: HACCP Principles
Week 7: FSMA and Food Safety Plan Overview; Hazard Analysis
Week 8: Process Preventive Controls; Allergen Preventive Controls; Sanitation Preventive Controls
Week 9: Supply Chain Preventive Controls & Verification; Food Safety Plan Review
Week 10: Recall Plan
Week 11: FSMA Produce Safety Rule
Week 12/13: Auditing and Inspection; GFSI and other food safety systems
Week 14/15: Final Project presentations
Links and Policies http://syllabus.ufl.edu/
Grading Scheme In-class exams (3)* 60% (20% each)
Final Group Project (in lieu of final exam) 40%
Total 100%
*Each In-class exam will cover approximately 1/3 of the course materials and be equally weighted.

Grading Scale:
A= 89.5-100.0
B+= 86.5-89.4
B= 82.5-86.4
B-=79.5-82.4
C+= 76.5- 79.4
C= 72.5- 76.4
C-= 69.5- 72.4

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D+=66.5-69.4
D=62.5-66.4
D-=59.5-62.4
E= <59.5

Final Group Project Details:
Students will be assigned to work in a group of 3-4 (depending on the final enrollment number). Each group will be given a specific food product scenario, and work together to develop a HACCP plan or Food Safety Plan under the FSMA Preventive Controls for Human Food Rule (based on your product). This will be an iterative process that will result in a comprehensive overview of the HACCP/Food Safety Plan development and maintenance, which is a major learning objective for this course. Each group is encouraged to organize an online meeting or use discussion section on Canvas. If you need any assistance in organizing an online meeting, ask for help to instructors.

Grading rubric for Final Group Project:
Topic (Possible Points)
1. Preliminary steps – Include ingredients, product description, and expected consumer (5)
2. Flow chart – Include all process inputs (10)
3. Hazards analysis for product/process - Use the provided form (15)
4. HACCP/PC plan – Use the provided form (30) - Process PC only
5. HACCP Presentation (20)
6. Report organization and quality– Include overall plan summary (15)
7. Participation - graded individually (Use the provided form) (5)

Instructor(s) Soohyoun Ahn; Renee Goodrich

Original file: Submitted form version 1.pdf

CALS Curriculum Committee
Submission Checklist

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (https://approval.ufl.edu/). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as "Proposal of a new undergraduate course" is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

_*SA*_ It is required when making a submission that you consult your department's representative to the CALS CC. A list of current members can be found on the committee site located at: https://cals.ufl.edu/faculty-staff/committees/.

_*SA*_ You MUST comply with the CALS Syllabus Policy, including items 1 through 8 and all standard syllabus statements. This document can be viewed at the committee site(https://cals.ufl.edu/faculty-staff/committees/) by clicking on the Curriculum Committee – Information & Documents heading and scrolling down to Forms, Checklists, and Other documents. The other items included here are all very helpful when making a curriculum submission. Some will be mentioned in other checklist items below.

_*SA*_ Joint course submissions must include both graduate and undergraduate syllabuses and a separate statement outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

_*SA*_ The course description on the UCC form and in the syllabus must match. Any other information you wish to include needs to be under a different heading such as background or additional information.

_*SA*_ The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-course-objectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

_*SA*_ The course schedule should be concise and include the appropriate number of weeks in the semester.

Original file: CALS CC Checklist-FOS4xxx.pdf

_***SA***_ All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

_**N/A**_ Outside consultations are required if there is a possibility of the proposed course covering material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: https://registrar.ufl.edu/pdf/uccconsult.pdf.

_***SA***_ Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable.

_***SA***_ Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

_***SA***_ The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this is included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

_***SA***_ The most recent version of the CALS Syllabus Statements boiler plate must be included in all syllabuses. This document is included in the CALS Syllabus Policy and can be copied and pasted to the syllabus. Do not use the boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Joel Brendemuhl (brendj@ufl.edu) for further instruction)

Original file: CALS CC Checklist-FOS4xxx.pdf

FOS 4XXX
Food Safety Systems

Course Hours & Location:

TR 5th Period (11:45 am to 12:35 pm)
Location: TBA

Instructors:

Dr. Soohyoun (Soo) Ahn (course organizer)
Food Science and Human Nutrition
Room 104A, Bldg. 120
E-mail: sahn82@ufl.edu (please, allow 24-48 hrs for a reply)
Phone: 352-294-3710
Office hours: M/T/R 9:00 to 10:30 am, all other times – by appointment only

Dr. Renee Goodrich-Schneider
Food Science and Human Nutrition
Room 329, FSHN Bldg.
E-mail: goodrich@ufl.edu (please, allow 24-48 hrs for a reply)
Phone: 352-294-3726
Office hours: W/R 1:00 to 3:00 pm, all other times – by appointment only.

Course Description:

This course is designed to cover 1) current issues in food supply chain including security and safety in domestic and international food industry, 2) various food safety control systems, 3) principles of HACCP and FSMA Preventive controls. The course also provides hands-on practice in developing a food safety plan.

Course Objectives and Learning Goals:

After completing this course, students should be able to:

1. Recognize the importance of food safety to protect public health.
2. Identify the types of hazards, and list the factors promoting those hazards.
3. Describe the importance of food safety in domestic and international food trade.
4. List and describe 7 principles of the HACCP system as a food protection tool.
5. Discuss the importance of risk analysis in food safety and how risk analysis can be done in food industry.
6. Identify hazards and develop process preventive controls for FSMA Food Safety Plan with a given food product example.

Textbook and Additional Reading Materials:

There is no required textbook for this course. However, following books are recommended as good resources for this course:

- FSMA and Food Safety Systems (Barach), Wiley
- HACCP: A Practical Approach, 3rd Ed. (Moltimore and Wallace), Springer
- Food Safety Management (King), Springer

These books can be accessed through library course reserves.

Supplemental reading materials will be posted on Canvas through each module page.

These materials include, but are not limited to 1) articles from recent literature; 2) regulations and/or guidance from government agencies (e.g. USDA FSIS and FDA); and 3) publications from food safety organizations (e.g. GFSI, FSSC).

Sample of these additional reading materials are listed below:

- "Quality Control: a model program for the food industry" 2010. WC Hurst, PT Tybor, AE Reynolds, and GA Schuler. University of Georgia, Cooperative Extension. (https://athenaeum.libs.uga.edu/bitstream/handle/10724/12251/B997.pdf)
- "Writing Sanitation Standard Operating Procedures (SSOPs)" 2018. KE Kaylegian, Penn State Extension.(https://extension.psu.edu/writing-sanitation-standard-operating-procedures-ssops)
- "A Historical Look at Food Safety" 2020. IFT Brain Food Blog (https://www.ift.org/news-and-publications/blog/2019/september/a-historical-look-at-food-safety)
- "Hazard Analysis and Risk-based Preventive Controls for Human Food: Draft Guidance for Industry" Chapter 1. The Food Safety Plan. 2018. FDA (https://www.fda.gov/media/99547/download)
- "FSMA Final Rule on Produce Safety" 2020 FDA. (https://www.fda.gov/food/food-safety-modernization-act-fsma/fsma-final-rule-produce-safety)
- "Auditing Food Safety" 2018. IFT. (https://www.ift.org/news-and-publications/food-technology-magazine/issues/2018/april/columns/food-safety-and-quality-auditing-food-safety)

Course Format:

Students will acquire knowledge of the current food safety issues and various systems to control these issues through the lectures, class discussions, reading, and assignments.

Fall 2020 only*: In Fall 2020, the lectures will be delivered 100% online due to the current pandemic. This will be a synchronous online course, in which the lectures are delivered through live online lectures on its class time. All lectures will be delivered through zoom meetings. If there is any issue during the lecture time (e.g. internet outage), lecture recordings will be provided as an alternative.

***COVID Response Statements (Fall 2020 only):**

Our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Instruction Method:

The course is divided into 10 modules. Each week, students will get access to a new page that contains materials for the given week. Each page consists of a link to video lectures, presentation slides and handouts, recommended reading materials, and additional supplementary materials (videos and/or readings) relevant to the module.

The best way to study the course materials in each module is to begin with the learning goals. It will help you understand the important learning points for that specific module. Next, attend class. I recommend to print out the presentation handout prior to the lecture and take notes during the lecture. Presentation slides is a simple summary of what is being explained in the lecture. Much more details are explained in the lecture, and it will be helpful to take notes during the lecture.

Then, read the assigned reading materials or watch the supplementary videos that are posted (if any). These materials will provide details and support the lecture and expand your scope of learning. This course does not have a required textbook, but has recommended textbooks, which are electronically available through the course reserves.

Grading:

In-class exams (3)*	60% (20% each)
Final Group Project (in lieu of final exam)	
- Process PC or HACCP Plan	40%
Total	**100%**

*Each In-class exam will cover approximately 1/3 of the course materials and be equally weighted.

Grading scale:

Grade	A	B+	B	B-	C+	C	C-	D+	D	D-	E
Course Average %	89.5-100.0	86.5-89.4	82.5-86.4	79.5-82.4	76.5-79.4	72.5-76.4	69.5-72.4	66.5-69.4	62.5-66.4	59.5-62.4	<59.5

For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/.

Group Project Details:

Students will be assigned to work in a group of 3-4 (depending on the final enrollment number). Each group will be given a specific food product scenario, and work together to develop a HACCP plan or Food Safety Plan under the FSMA Preventive Controls for Human Food Rule (based on your product). This will be an iterative process that will result in a comprehensive overview of the HACCP/Food Safety Plan development and maintenance, which is a major learning objective for this course.

Each group is encouraged to organize an online meeting or use discussion section on Canvas. If you need any assistance in organizing an online meeting, ask for help to instructors.

Policy regarding Make-up exam / Late work submission:

Each exam will be given as scheduled in course outline (see below). Students must take the exams on the day scheduled. Make-up exams will be allowed only for the case of verifiable emergencies or legitimate reasons (illness, family emergency)**.** In those excusable circumstances, students should notify the instructor PRIOR TO the scheduled exam and provide proper proof afterwards. Instructor will refuse to give a chance to take a make-up exam unless a student provides the proof that the absence was excusable. All make-up exams MUST be taken within two days of the scheduled exam, whenever possible.

Due date will be given in advance for the project. All work must be completed by the designated due dates. No late work will be accepted unless arrangement is made with the instructor beforehand.

Attendance Policy:

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/.

Technology requirements:

Students must use their Gatorlink email account for this course. Students are recommended to check their email account daily for the duration of the course.

For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at:

- learning-support@ufl.edu
- (352) 392-4357 - select option 2
- lss.at.ufl.edu

Communication Policy:

Students will have multiple channels to communicate with instructors:

- E-mails (either direct emailing or through Canvas mail)
- Canvas course page - Q&A forum in Discussion
- After the lecture, instructors will be available to take any questions
- During the lecture, students can ask questions using "Chat" function in Zoom (Online lecture only)

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats.

Academic Honesty:

Student Honor and Conduct Code from University of Florida will be enforced on the case of infringement of academic integrity, including **plagiarism, cheating and prohibited collaboration or consultation**. Details can be found at: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/.

Disability Clause:

The Disability Resource Center provides services to students with physical, learning, sensory or psychological disabilities. These services include registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, and mediating any other disability-related issues. Disability Resource Center can be reached at 352-392-8565 or accessUF@ufsa.ufl.edu, and is located at 0001 Building 0020 (Reid Hall). Detailed information is available at: https://disability.ufl.edu/.

Software Policy:

All faculty, staff, and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Course Evaluation:

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expectedto provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, intheir Canvas course menu under GatorEvals, or viahttps://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at: https://gatorevals.aa.ufl.edu/public-results/

Online Security and Privacy Protection:

It is critical to protect your data and privacy. Since we use several online tools for this course (Canvas, Honorlock, Zoom), you should be mindful of protecting your own data.

- Do not share your personal information online.
- Do not share the password for zoom lectures (We don't want any stranger in our virtual classroom!)
- We will not record the zoom lectures, but if there is any need to record the lecture, you will be notified so you could turn off your camera if you don't want to get recorded.

For information about the privacy policies of the tools used in this course, see the links below:

- Instructure (Canvas)
  - Privacy Policy
  - Accessbility
- Zoom
  - Privacy Policy
  - Accessibility
- Honorlock
  - Privacy Policy
  - Accessibility

Campus Resources for Students:

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling& Wellness Centerprovidesconfidential counseling services at no cost for currently enrolled students. Resources are available on campus for students havingpersonal problems or lacking clear career or academic goals, which interfere with their academic performance.

Health and Wellness:

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit umatter.ufl.edu/ to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit counseling.ufl.edu/ or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit shcc.ufl.edu/.
- University Police Department: Visit https://police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room/Trauma Center: For immediate medical care, call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; https://ufhealth.org/emergency-room-trauma-center.

Academic Resources

- E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail athelpdesk@ufl.edu.
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services; https://career.ufl.edu/.
- Library Support: various ways to receive assistance with respect to using the libraries or finding resources; https://cms.uflib.ufl.edu/ask
- Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring; https://teachingcenter.ufl.edu/
- Writing Studio:2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers; https://writing.ufl.edu/writing-studio/
- Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor- code-student-conduct-code/On-Line Students Complaints: https://distance.ufl.edu/student-complaint-process/

Flexibility Clause: Circumstances may arise during the course that may prevent the instructor from fulfilling each and every component of this syllabus; therefore, syllabus should be viewed as a guide and is subject to change. Students will be notified of any changes.

Tentative Course Outline:

Detailed course schedules are shown below. Please note that this represents current plans. As we go through the semester, these plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Module 1 – Course Introduction and Overview (wk 1)

Module 2 – Quality Control (wk 2)

Module 3 – Pre-requisites (wk 3)

Module 4 – Food Safety Regulations (wk 4)

Module 5 – HACCP (wk 5-6)

Module 6 – FSMA and Preventive Controls (wk 7-10)

Module 7– FSMA Produce Safety (wk 11)

Module 8 – Auditing and Inspection (wk 12)

Module 9 – Other systems (wk 12)

Module 10- Project work and presentation (wk 14-15)

Week (Dates)	Module /Topic	Assignments & Exams
1 **(Sep 1, 3)**	• 1.1. Course introduction (Ahn/Goodrich) • 1.2 Food Safety Systems Overview (Ahn)	
2 **(Sep 8, 10)**	• 2. Quality Control (Guest lecture by Dr. Sims)	
3 **(Sep 15, 17)**	• 3. Pre-requisites: GMPs and SSOPs (Ahn)	
4 **(Sep 22, 24)**	• 4. Food Safety Regulations (Ahn)	
5 **(Sep 29, Oct 1)**	• Exam 1 • 5.1. Intro to HACCP (Goodrich)	Exam 1 (Sep 29)
6 **(Oct 6, 8)**	• 5.2. HACCP Principles (Goodrich)	
7 **(Oct 13, 15)**	• 6.1. FSMA and Food Safety Plan overview (Ahn) • 6.2. FSMA PC – Hazard analysis (Ahn)	
8 **(Oct 20, 22)**	• 6.3. FSMA PC – Process Control (Ahn) • 6.4. FSMA PC – Allergen & Sanitation Control (Ahn)	
9 **(Oct 27, 29)**	• 6.5. FSMA PC – Supply Chain Control & Verification (Ahn) • 6.6. FSMA PC – Food Safety Plan Review & Project Introduction (Ahn/Goodrich)	Oct 29: Final Project Assignment posted (Due Dec 8)

10 **(Nov 3, 5)**	• 6.7. FSMA PC - Recall Plan (Ahn) • Exam 2	Exam 2 (Nov 5)
11 **(Nov 10, 12)**	• 7. FSMA Produce Safety Rule (TBA)	
12 **(Nov 17, 19)**	• 8. Auditing and Inspection (Goodrich) • 9. GFSI and other food safety systems (Goodrich)	
13 **(Nov 24)**	• Exam 3	Exam 3 (Nov 24)
14/15 **(Dec 1, 3, 8)**	• 10. Final Project Presentation	Final Project Presentation (Dec 1, 3, 8) Final Project Report (Due Dec 8)

Cover Sheet: Request 15255

New graduate certificate: Applications in AI-based SmartAg Systems

Info

Process	Certificate|New|Grad|Revised
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Jonathan Watson jaw7385@ufl.edu
Created	9/2/2020 9:48:22 AM
Updated	11/9/2020 10:48:30 AM
Description of request	Request for new graduate certificate targeting Applied Science students titled Applications in AI-based SmartAg Systems.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Agricultural and Biological Engineering 60070000	Kati Migliaccio		10/23/2020
SmartAg_Certificate_SFRC_Consult.pdf					9/2/2020
College	Pending	CALS - College of Agricultural and Life Sciences			10/23/2020
No document changes					
OIPR					
No document changes					
Graduate Council					
No document changes					
Graduate School Notified					
No document changes					
University Curriculum Committee Notified					
No document changes					
Office of the Registrar					
No document changes					
OIPR Notified					
No document changes					
Academic Assessment Committee Notified					
No document changes					
Student Academic Support System					
No document changes					
College Notified					
No document changes					

Original file: Cover sheet.pdf

Certificate|New for request 15255

Info

Request: New graduate certificate: Applications in AI-based SmartAg Systems
Description of request: Request for new graduate certificate targeting Applied Science students titled Applications in AI-based SmartAg Systems.
Submitter: Jonathan Watson jaw7385@ufl.edu
Created: 8/27/2020 9:28:59 AM
Form version: 1

Responses

Certificate Name Applications in AI-based SmartAg Systems
Transcript Title Applications in AI-based SmartAg Systems
Credits 12
Level Graduate
CIP Code 14.0301
Degree Program Agricultural and Biological Engineering
Effective Term Fall
Effective Year 2021
Certificate Description Science graduate students and professionals will be trained in areas relevant to modern computation-based innovations in agriculture termed SmartAg, which relies on Artificial Intelligence to implement hardware/software-based solutions. Students can select electives in their area of interest in precision agriculture, remote sensing, GIS, controlled environment, and crop simulation.
Requirements for Admission In addition to current prerequisites for listed courses, the required courses will follow the proposed tiered structure sequence, i.e. courses in Tier III will require Tier I and II, and Tier II will require Tier I courses. Faculty teaching courses in this Certificate will form a committee in charge of supervising the certificate curriculum and the core set of educational goals developed through the proposed course-track. It is expected that students pursuing this certificate have an undergraduate degree in a science discipline, and a foundational background in computer programming such as, C, C++, Python or Visual Basic. In addition, students should be familiar with Matlab, physics, and calculus, and will still be responsible for course prerequisites, and thus may be limited in the courses they can take.
Requirements for Completion A 3-tier sequence of courses was devised based on current catalog of courses with emphasis on precision agriculture and SmartAg concepts. The 3-tier sequence consists 12 credits composed of two required courses followed by two electives that can be selected according to the student's area of focus or interest. The first course, at Tier I, introduce students to design analysis, and evaluation of SmartAg methods for applications in production agriculture, biological and food engineering, forestry, land, and water resources At Tier II, the student will develop machine learning skills that can be applied to a broad ranges of applications in agriculture and life sciences . After completion of the first two courses, the student can select 2 additional specialized courses (electives) according to the student's area of focus or interest across different disciplines (see below). One such course is precision agriculture which introduces concepts such as data collection and mapping, yield monitoring, prescription application, temporal and spatial variability of soil, moisture and crop factors.

Tier I: AOM-5XXX Applied Methods in SmartAg Systems, 3 credit, and letter grade.
Tier II: ABE6933 Statistical Machine Learning, 3 credits, letter grade
Tier III: Choose two from AOM5435 Advanced Precision Agriculture, ABE6035 Advanced Remote Sensing, ABE6645C Computer Simulation Crop, ABE6933 Logistics of Agricultural Food Chains, GIS6116 GIS Analysis, SUR6502C Foundations of UAS Mapping, AOM6932 Controlled Environment Plant Production. All tier III courses are 3 credits and letter grade.

Rationale and Place in Curriculum In fall of 2017, the IEEE and ASABE societies organized a joint meeting at Michigan State University to launch a co-sponsored initiative termed SmartAg which would be identified as the Nexus of future technology development in agriculture combining aspects of previous trends such as Precision Agriculture, Digital Agricultural, Agriculture 4.0, Agricultural IOT, and Big Data into a new paradigm that would draw technical expertise and support from members of IEEE and ASABE interested in promoting sustainable food production through advanced smart technologies

Original file: Submitted form version 1.pdf

in agriculture. The initiative should open up new opportunities for funding, scientific collaboration, and employment. This concept was discussed by the ABE and AOM graduate faculty and a recommendation was made to create and launch a Certificate in SmartAg Systems. In order to better serve graduate students, a three level approach was conceived, where students could take level 1 and level 2 required classes in SmartAg applications and Machine Learning, respectively, and then select their final two certificates course from the list of electives. Key benefits of the Certificate are identified as followed:
- Campus-wide visibility for traditional students seeking expertise in using AI in modern PrecisionAg and SmartAg.
- The Certificate provides written recognition of this expertise at a cost similar to graduate minors.
- ABE grad students cannot get a minor in our department. A certificate would allow them to highlight a SmartAg specialty in the department.
- The Certificate provides a diploma offered by the Graduate School and Department which could be desirable for Professional (industry) and external students, at a limited cost (4 courses).
- The Certificate would showcase our strengths and expertise in particular areas for industry partners and other departments, and be an effective recruitment tool for top students into our Graduate program.
- The Certificate will allow improved coordination among ABE and AOM courses, ensuring basic requirements are meet, and thus improve educational outcomes of the enrolled students.

Student Learning Outcomes a) Outcome: The student will evaluate case studies in smart irrigation, environment control, climate decision support, process control, and then implement practical SmartAg algorithms using Python, C++ or Visual Basic, using AI-based approaches such as, fuzzy logic, PID control, and other statistical machine learning approaches.
Assessment: The student will create a portfolio of case studies and programming projects in their Tier I and Tier II course and submit it to the certificate mentoring committee for acceptance.
b) Outcome: Students will take two additional elective courses identified above and will complete all course work.
Assessment: The student will create a portfolio of homework and projects for each Tier III course and submit it to the certificate mentoring committee for acceptance.
c) Outcome: Students will evaluate a potential SmartAg application task and compose a recommended course of action to implement the task.
Assessment: A final project will have the student evaluate a novel SmartAg scenario. The student will then compose a project proposal and plan of work with sufficient detail to demonstrate a thorough understanding of the problem and thus convince a potential investor to adopt proposal. This project proposal will be presented to the Faculty Certificate Committee as a requirement for graduation from the SmartAg Systems Level I Certificate.

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CALS Curriculum Committee
Submission Checklist

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (https://approval.ufl.edu/). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as "Proposal of a new undergraduate course" is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

J.A.W. It is required when making a submission that you consult your department's representative to the CALS CC. A list of current members can be found on the committee site located at: https://cals.ufl.edu/faculty-staff/committees/.

N/A You MUST comply with the CALS Syllabus Policy, including items 1 through 8 and all standard syllabus statements. This document can be viewed at the committee site(https://cals.ufl.edu/faculty-staff/committees/) by clicking on the Curriculum Committee – Information & Documents heading and scrolling down to Forms, Checklists, and Other documents. The other items included here are all very helpful when making a curriculum submission. Some will be mentioned in other checklist items below.

N/A Joint course submissions must include both graduate and undergraduate syllabuses and a separate statement outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

N/A The course description on the UCC form and in the syllabus must match. Any other information you wish to include needs to be under a different heading such as background or additional information.

N/A The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-course-objectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

N/A The course schedule should be concise and include the appropriate number of weeks in the semester.

Original file: CALS CC Checklist - JAW.pdf

N/A All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

J.A.W. Outside consultations are required if there is a possibility of the proposed course covering material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: https://registrar.ufl.edu/pdf/uccconsult.pdf.

N/A Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable.

N/A Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

N/A The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this is included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

N/A The most recent version of the CALS Syllabus Statements boiler plate must be included in all syllabuses. This document is included in the CALS Syllabus Policy and can be copied and pasted to the syllabus. Do not use the boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Joel Brendemuhl (brendj@ufl.edu) for further instruction)

Original file: CALS CC Checklist - JAW.pdf

RE: Request # 15217

Dewitt,Bon A <bon@ufl.edu>

Mon 8/31/2020 6:52 PM

To: Migliaccio, Kati W <klwhite@ufl.edu>; Baker III,Terrell T <ttredbaker@ufl.edu>
Cc: Watson,Jonathan A <jaw7385@ufl.edu>

Hi Kati:

I checked with the instructors for the courses and here is what I found.

For GIS6116 – The instructor said he could accommodate 10 more students but he would like to cap it at that level for planning purposes. (This is the easy one.)

For SUR6502C – The principal instructor for this course just retired and we are on hold with a new position because of the hiring freeze. We have a team of instructors set up to offer the course in spring 2021 but they will be stretched very thin. They (somewhat reluctantly) agreed that they could handle about two more students, but that would be about it. Without more teaching personnel and possibly some more surveying equipment, we would be hard-pressed to give much more support than that.

Regards,
Bon

From: Migliaccio, Kati W <klwhite@ufl.edu>
Sent: Thursday, August 27, 2020 12:58 PM
To: Baker III,Terrell T <ttredbaker@ufl.edu>; Dewitt,Bon A <bon@ufl.edu>
Cc: Watson,Jonathan A <jaw7385@ufl.edu>
Subject: FW: Request # 15217

Red and Bon,
We have another request for review for a certificate. The information on the certificate is attached.

We need to check regarding two courses we included in the certificate that are Tier III. Students may select two from the list. The list includes: AOM5435 Advanced Precision Agriculture, ABE6035 Advanced Remote Sensing, ABE6645C Computer Simulation Crop, ABE6933 Logistics of Agricultural Food Chains, GIS6116 GIS Analysis, SUR6502C Foundations of UAS Mapping, AOM6932 Controlled Environment Plant Production

The question was raised whether or not the two courses (GIS6116 GIS Analysis, SUR6502C Foundations of UAS Mapping) Would have the capacity to potentially enroll more students that might result from approval of this certificate?

I think an email response will be sufficient.

Thank you,
Kati Migliaccio

From: Watson,Jonathan A <jaw7385@ufl.edu>
Sent: Thursday, August 27, 2020 12:46 PM
To: Burks,Thomas Francis <tburks@ufl.edu>; Migliaccio, Kati W <klwhite@ufl.edu>
Subject: Fw: Request # 15217

Original file: SmartAg_Certificate_SFRC_Consult.pdf

CALS SYLLABUS STATEMENT FOR CONSIDERATION

DIVERSITY, EQUITY ~~INCLUSION~~ AND INCLUSION~~EQUITY~~

The University of Florida's College of Agricultural and Life Sciences (CALS) ~~as well as College of Veterinary Medicine~~ supports the University of Florida's commitment to diversity, equity ~~inclusion~~, and inclusion~~equity~~. By fostering a sense of belonging for students, staff and faculty while leveraging the uniqueness of the people who study and work at the university, we believe our campus community is enriched and enhanced by diversity, including but not limited to race, ethnicity, national origin, gender, gender identity, sexuality, class, and religion. This~~Our~~ course will support~~help foster~~ an understanding of the diversity of our campus community as well as our ~~veterinary medicine,~~ agricultural and natural resource communities, locally and globally.

This course ~~We~~ will strive to create a learning environment for ~~our~~ students that supports a diversity of thoughts, perspectives, and experiences while honoring your identities. To accomplish this, please let the instructor~~us~~ know:

- If you have a name and/or set of pronouns that differ from those that appear in your official university records.
- If you believe your performance in this course ~~e-class~~ is being impacted by your experiences inside and/or outside the classroom~~of class.~~, ~~D~~do not hesitate to contact the instructor~~reach out and talk with us~~. Instructors in CALS are a great ~~We want to be a~~ resource for you and you may provide feedback anonymously. ~~Anonymous feedback may be submitted,~~ Feedback ~~which~~ may result in ~~lead us to make a~~ general announcements to the class, if necessary, or reporting to appropriate UF personnel to address your concerns.
- CALS instructors, ~~We,~~ like many people, are still in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that makes you feel uncomfortable, please discuss with your instructor.~~talk to us about it.~~

~~Contact us with any concerns regarding inclusion and equity, including accessibility of learning materials, equipment, and software.~~

Formatted: Centered

Commented [BH1]: Made this change to be consistent with most UF committees which are DEI.

Commented [UO2]: You may want to consider adding this statement at the beginning of this paragraph: "Racial, ethinic, cultural, and linguistic diverse students in our community demand us to meet the learning challenges with strength and relevance found in their cultural frame of reference."

Commented [AR3R2]: I like this suggestion from Qudus. I would rephrase as "The racial, ethnic, cultural, gender identity, sexuality, socioeconomic, and religious diversity in our community requires us to meet the unique learning challenges of these groups with strength and relevance found across diverse frames of reference."

Commented [UO4]: Consider adding this statement also: "if any of our learning and teaching aid says otherwise to our diversity, equity, and inclusion commitment."

Commented [AR5R4]: Maybe this could be broadened as 'if any course instructor, including teaching assistants, state or behave in a manner that is contrary to our commitment to diversity, equity, and inclusion'. It gets a little tricky though because this whole section says to contact the instructor with concerns. I believe that there should be a statement at the end that says that if any student has concerns that they do not feel comfortable sharing with the instructor, they can address those concerns to a member of the IFAS DEI committee or something like that.

Commented [R6]: Would it be worth adding that we expect all course participants to respectfully use preferred names and pronouns.

Commented [BH7]: This sentence repeats the above information in my opinion and accessibility related to equipment, software are covered elsewhere in a syllabus.