

AGRICULTURAL FACULTY MEETING

Wednesday, December 1, 2021

3:00 p.m. – 4:30 p.m.

PFEN 241 or Zoom:

<https://purdue-edu.zoom.us/j/97105744480?pwd=NUtjcUV6MjJBVXJsa25QNmdYbXZGQT09>

Meeting ID: 971 0574 4480

Passcode: 113883

1. Call to Order – Dean Karen Plaut
2. Approval of Agenda
3. Shared Governance
4. Announcement of College of Agriculture Faculty Awards – John Lumkes
5. Consent Agenda – Action Items
 - Approval of Minutes of March 23, 2021 Agricultural Faculty Meeting
 - Document I – Agriculture
 - Document II – Animal Sciences
 - Document III – Biochemistry
 - Document IV – Botany and Plant Pathology
 - Document V – Entomology
 - Document VI – Forestry and Natural Resources
 - Document VII – Horticulture and Landscape Architecture
 - Document VIII – Natural Resources and Environmental Sciences
 - Document IX – Curriculum and Student Relations Committee
 - Part I – Update to Core Curriculum Lists
 - Part II – Deletion of courses
 - Part III – Modification of courses
 - Approval of 2021 December Degree Candidates
6. Memorial Resolutions
7. Report Items
 - University Senate Report – Robert Pruitt
 - Dean’s Comments – Karen Plaut
8. Other Business

Department of Agriculture

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: AGR 20500

Long Title: Dean's Scholars Seminar

B. CURRICULAR CHANGES (If new major, concentration or minor, need plan of study, description, proposed head count, UEAC justification [See CSRC Box for example])

Justification/Rationale: Removing MA 16020 in the Pre-vet curriculum to better align with veterinary medical school requirements. Adding 3 credits of selectives to replace the 3 credits of calculus.

Expected Impact to other Programs: Reducing the number of students that would be taking MA 16020.

Supporting Document

A. Short Title: Dean's Scholars Seminar

B. Semester(s) Offered: Fall

C. Schedule Type and Hours: 50/1/16

D. Credits: 1.0

E. Justification for the course: This course has been taught for the last couple of years and is used to introduce students to the Dean's Scholars program, help transition them to life at Purdue, and familiarize students with the opportunities available to them in regards to academic excellence, issues engagement, professional development, and undergraduate research.

F. Expected Impact to other Programs: None

G. Course Description for University Catalog: Students are introduced to the breadth and mission of the College of Agriculture. Specific areas discussed include the diversity of career opportunities within agriculture, the relationships between different areas of agriculture, ethics, the opportunities within undergraduate research, and the challenges facing the food, agricultural, and natural resource system. Students will be exposed to a series of guest lecturers to gain an overview of the various fields within the college and undergraduate research or scholarly work opportunities.

H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req): Must be part of the Dean's Scholars Learning Community

I. Restrictions: Instructor permission.

J. Learning Outcomes:

Students will: Have an increased appreciation for the diversity of disciplines in agriculture and the contributions that a specific discipline can make to addressing human issues; Gain an interdisciplinary understanding of Purdue Agriculture through research, scholarly article reviews, common reading experiences, group discussions and project work; Work collaboratively with fellow students and peer mentors; Develop a relationship with a small group of Dean's Scholars thus enhancing own college experience and learning skills; Understand the requirements for the Dean's Scholars program including honors coursework, undergraduate honors research or scholarly project.

K. Applicable to College of Agriculture Core

This course will **will not** be nominated for inclusion on College of Agriculture Core.

L. Instructor Information: Dr. Christine Wilson & Elizabeth Byers-Doten

M. Link to curriculog (if applicable):

Name: _____ PUID: _____ Date: _____

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
0.5	AGR 10100 Introduction to the College of Agriculture and Purdue University		4	BIOL 11100 Fundamentals of Biology II	BIOL 11000
0.5	AGR 12400 Introduction to Pre-Veterinary Medicine		4	CHM 11600 General Chemistry	CHM 11500
4	BIOL 11000 Fundamental of Biology I		3	COM 11400 Fundamentals of Speech Communication or COM 21700 Science Writing and Presentation or EDPS 31500 Collaborative Leadership: Interpersonal Skills	
4	CHM 11500 General Chemistry		3	MA 16020 Applied Calculus II	MA 16010
3	ENGL 10600 First Year Composition or ENGL 10800		1	VM 10200 Careers in Veterinary Medicine	
3	MA 16010 Applied Calculus I	ALEKS 75+	3	Economics Selective	
15			15		
Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	ANSC 22100 Principles of Animal Nutrition	CHM 11100	3	AGRY 32000 Genetics	BIOL 11100
3	BIOL 23100 Biology III: Cell structure and function	BIOL 11100	1	AGRY 32100 Genetics Laboratory	
2	BIOL 23200 Laboratory in Biology III: Cell structure and function		3	CHM 25600 Organic Chemistry	CHM 25500
3	CHM 25500 Organic Chemistry	CHM 11600	1	CHM 25601 Organic Chemistry Laboratory	
1	CHM 25501 Organic Chemistry Laboratory		3	Agricultural Selective	
3	UCC Science Technology, & Society Selective		3	Written or Oral Communication Selective	
			3	Selective	
15			17		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	BCHM 30700 Biochemistry	CHM 25600	4	BIOL 22100 Microbiology	BIOL 11100
4	PHYS 22000 General Physics		4	PHYS 22100 General Physics	PHYS 22000
3	STAT 30100 Elementary Statistical Methods		3	Humanities or Social Science Selective	
3	Agricultural Selective		3	Economics Selective	
3	Selective				
16			14		

Pre-veterinary medicine is not really a major, but rather is a collection of prerequisites for admission to Purdue's College of Veterinary Medicine. Students may enter the College of Agriculture in Pre-Vet, but later must pick a major to pursue. Students pursuing a wide variety of curricula may apply and be admitted to a veterinary college.

The pre-veterinary medicine curriculum includes courses that are required for admission to the Doctor of Veterinary Medicine degree program offered by the Purdue College of Veterinary Medicine. This program of study, coordinated by the College of Agriculture Office of Academic Programs, emphasizes the biological and physical sciences that are foundations for successful study of veterinary medicine. Also, the curriculum includes courses in communication and the social science.

Department of Animal Sciences

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: ANSC 51600
Long Title: Molecular Microbiome Analysis

B. CURRICULAR CHANGES

None

Supporting Document

- A. Short Title:** Molecular Microbiome Analysis
- B. Semester(s) Offered:** Spring
- C. Schedule Type (e.g. Lecture/Lab) and Hours:** LEC/75 min per mtg/2 mtgs per week/16 weeks per term
- D. Credits:** 3.0
- E. Justification for the course:** With the recent rapid advances in sequencing technology, inclusion of the study of microbial communities has become very common in systems biology research. Many students from many departments and colleges at Purdue often lack the knowledge and confidence to undertake an analysis of next-gen sequencing data and must have an understanding of both how to perform the computation and how to interpret the results. In consultation with the faculty involved in microbial ecology (microbiome) research and as a part of the integrative data science ecosystem initiative, it was decided that this course would fill a critical need at Purdue University. This course will enable students to be comfortable analyzing large amplicon sequence datasets and to have confidence to learn and use additional computation tools in the future.
- F. Impact to other CoA programs:** ANSC 51600 was developed in consultation with CoA microbiome core faculty and in consideration of existing courses to fill a need within the CoA microbiome curriculum. ANSC 51600 is expected to have no impact on other programs in CoA.
- G. Course Description for University Catalog):** Molecular microbiome analysis will provide students with an advanced understanding of microbial communities associated with animal, soil, insect or plants and how to analyze next-generation sequencing data of amplicon libraries. Students will participate in activities including classroom lecture, group discussion, critical reading of literature, written assignments and exams, and student projects. Knowledge of microbiology, statistics, and experimental data management is expected.
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None
- I. Restrictions:** Restricted to graduate students and senior level undergraduates. Undergraduates seeking to enroll in the course will need to have instructor permission.
- J. Learning Outcomes:** 1. Understand and critically review peer-reviewed publications in microbiome studies. 2. Design a microbiome experiment, with considerations for microbiome controls and reproducibility. 3. Analyze next-gen sequencing data from gene amplicon libraries 4. Use R to manage datasets, perform analyses, and produce descriptive graphics 5. Develop basic computational literacy in bash and R scripting, and cluster computing.
- K. Applicable to College of Agriculture Core**

This course **will** **will not** be nominated for inclusion on College of Agriculture Core.

L. Instructor Information: Tim Johnson, Department of Animal Sciences
john2185@purdue.edu, (765) 494-8019

M. Link to curriculog (if applicable): [Click here to enter text.](#)

Department of Biochemistry

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: BCHM 39100

Long Title: Internship in Biochemistry

B. CURRICULAR CHANGES (If new major, concentration or minor, need plan of study, description, proposed head count, UEAC justification (See CSRC Box for example))

Add CS 15900 and CS 18000 as alternative courses to Bioinformatics minor.

Justification/Rationale: Add alternative CS courses to Bioinformatics minor to accommodate computer science and engineering majors who take those courses instead of CS 17700. Not allowing courses to be taken pass/no pass provides a more rigorous experience and is in line with course expectations in our department.

Minor requirements should now read:

Bioinformatics Minor

Requirements for the Minor (16 credits)

Required Courses (13 credits)

BCHM 42100 - R For Molecular Biosciences

BCHM 42200 - Computational Genomics

BCHM 52100 - Comparative Genomics

CS 17700 - Programming With Multimedia Objects **or CS 15900 - C Programming or CS 18000 - Problem Solving And Object-Oriented Programming** or CS 19000 – DEP (Data Science in Python)

Bioinformatics Elective - Choose One: (3 credits)

BCHM 61200 - Bioinformatic Analysis of Genome Scale Data

BIOL 47800 - Introduction to Bioinformatics

BIOL 56310 - Protein Bioinformatics

CHM 57900 - Computational Chemistry

CS 47800 - Introduction to Bioinformatics

HORT 53000 - Introduction To Computing For Biologists

All courses for the minor must be taken for a grade (no pass/not-pass courses).

Add a statement to the Biochemistry minor, “All courses for the minor must be taken for a grade (pass/not-pass courses not allowed).”

Justification/Rationale: Not allowing courses to be taken pass/no pass provides a more rigorous experience and is in line with course expectations in our department.

Impact to other CoA programs: Including CS 15900 and CS 18000 as alternative courses to CS 17700 and CS 19000 is anticipated to have no negative impacts on programs utilizing these courses. Expanding the options will only ease the ability of students in other programs, such as ABE, to enroll in these BCHM courses by making use of coursework already in their curriculum. A potential positive impact is an increase in enrollment in the bioinformatics minor.

BCHM faculty member with 25% appointment in CS has approved content of CS courses as being equivalent for purposes of the bioinformatics minor. This document has been provided to the CS Department Head (Sunil Prabhakar) and Assistant Head for Academic Programs (Monica Shively) who have approved this change. Currently, there are 8 students in the Bioinformatics minor. Emails dated: Thu 9/30/2021 4:55 PM.

Supporting Documents

- A. Short Title:** Intern in Biochem
- B. Semester(s) Offered:** Fall, Spring, Summer
- C. Schedule Type (e.g. Lecture/Lab) and Hours:** Experiential/Independent Study (hours vary)
- D. Credits:** 0.0
- E. Justification for the course:** A relatively small, but growing, number of biochemistry students are performing 6-month internships with companies. In the past, we have utilized CHM 18300 for these students, but the Department of Chemistry requested that we no longer do this and therefore we need to create our own departmental course number. The purpose of this course number is to keep students in full-time standing during an internship/coop. Students will not earn academic credit for this course number.
- F. Course Description for University Catalog):** Professional internship with biochemistry-related employers in industry, government, or small business. Permission of department required.
- G. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None
- H. Restrictions:** Departmental Permission
- I. Learning Outcomes:** 1. Contribute toward the student's development in the College of Agriculture outcomes related to professional preparation, critical thinking and problem solving, communication, and teamwork. 2. Contribute to program outcomes related to understanding the contributions of our discipline to society, appreciating the ethical issues facing professionals in the life sciences, communicating scientific knowledge, performing a wide variety of biochemical and molecular techniques, and understanding the scientific method. **Evaluation of outcomes:** The student will meet with instructor before starting the internship to discuss their expectations and the impact the opportunity will have on their professional development. As part of the follow-up meeting with the instructor at the end of the experience, the student will orally present a summary of their experience to the instructor, that will include what the student learned, how this experience has contributed to the student's professional development, and how it impacted the student's career goals.
- J. Applicable to College of Agriculture Core**
This course will will not be nominated for inclusion on College of Agriculture Core.
- K. Instructor Information:** Heidi Fornes
- L. Link to curriculog (if applicable):** Click here to enter text.

Impact to other CoA programs: Replacing CHM 18300 with BCHM 39100 is anticipated to have no impact on other programs in CoA. However, this replacement will have a positive impact on the Department of Chemistry because they will no longer be responsible for managing the paperwork associated with an intern experience by our students. A positive impact may be to increase the number of students that participate in an internship or coop while in the Biochemistry program as a result of associating the experience with a BCHM course designation. This course does not fall into the “cooperative course” category.

Department of Botany and Plant Pathology

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: BTNY 29800

Long Title: Undergraduate Research

B. CURRICULAR CHANGES

None

Supporting Document

- A. Short Title:** Undergraduate Research
- B. Semester(s) Offered:** F, Sp, Su
- C. Schedule Type and Hours:** Arranged hours
- D. Credits:** 1.0-3.0
- E. Justification for the course:** This course will provide an opportunity for 1st and 2nd year undergraduate students to participate in an independent research experience that prepares them for their capstone research experience in BTNY 49800.
- F. Expected Impact to other Programs:** None
- G. Course Description for University Catalog:** Supervised individual laboratory or field research for freshmen and sophomore undergraduate students. A written report of work accomplished will be required. Up to 3.0 credits can be earned in BTNY 29800. Permission of department required.
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None
- I. Restrictions:** Permission of department required
- J. Learning Outcomes:** 1) Define and explain the scientific method as it applies to plant science research. 2) identify and practice research ethics and responsible conduct in research. 3) Reflect on their own research, identifying lessons learned, strengths, and ways to improve.
- K. If Applicable to College of Agriculture Core**
This course will will not be nominated for inclusion on College of Agriculture Core.
- L. Instructor Information:** Individual instructors
- M. Link to curriculog (if applicable):** Click here to enter text.

Department of Entomology

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: ENTM 60900

Long Title: Writing Science

B. CURRICULAR CHANGES

None

Supporting Document

- A. **Short Title:** Writing Science
- B. **Semester(s) Offered:** Fall semester, even years
- C. **Schedule Type and Hours:** LEC/50min per mtg/1mtg per wk/16 wks per semester
- D. **Credits:** 1.0
- E. **Justification for the course:** Graduate students in the college have taken writing courses throughout their K–12 and undergraduate careers; however, very few have taken formal instruction on how to write for a scientific audience. We argue that science writing is a fundamentally different style and tone compared to general writing and students who are preparing their thesis/dissertation chapters for publication in journals stand to benefit from learning how to prepare an effective manuscript or grant. The fact that this course has filled enrollment caps and received highly positive student evaluations in prior offerings further justifies the need for this course in the college. This course has been offered several times under a temporary 69200 number and requires a permanent number to continue being offered.
- F. **Expected Impact to other Programs:** In previous offerings of this course during recent years, we drew enrollment from grad students in other non-ENTM departments in the college; primarily FNR and ANSC, as well as some from BIOL. Thus, we expect that this course will serve a role in helping to improve communication skills for a wider diversity of students in the CoA outside of entomology. This is particularly true since, although ENTM is the host department, the content is not discipline-specific to insects. To our knowledge, there is not a similar course currently being offered by other departments. We expect no impact to other programs.
- G. **Course Description for University Catalog:** This course is designed for graduate students (MS or PhD) at any stage in their professional career who are seeking formal training in manuscript and grant writing for a scientific audience. Students will be required to attend class and prepare for in-class group discussions and writing activities by reading assigned sections of the text or associated papers. Students will also be required to prepare a written assignment (manuscript or grant) over the course of the semester, which they will use to practice and hone newly acquired skills, as well as participating in peer-evaluation of one another's writing.
- H. **Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None
- I. **Restrictions:** None
- J. **Learning Outcomes:** The goals of this course are to guide and enable students to 1) utilize resources and approaches (e.g. online tools, peer-writing groups, time

management skills) to develop regular writing habits, 2) perform critiques of scientific manuscripts and research proposals, 3) provide constructive criticism to fellow students on writing assignments, 3) learn steps and basic principles (e.g. language, narrative structure, revision process) used to write clear and concise scientific papers for a variety of audiences, and 4) apply principles of science writing to develop a complete draft of a specific section(s) of the MS/PhD research proposal, critical literature review, manuscript or other academic work (with instructor permission).

K. Applicable to College of Agriculture Core

This course will **will not** be nominated for inclusion on College of Agriculture Core.

L. Instructor Information: Co-instructors: Dr. Laramy Enders, Dr. Ian Kaplan

M. Link to curriculog (if applicable): [Click here to enter text.](#)

Department of Forestry & Natural Resources

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: FNR 57400

Long Title: Big Data, AI, and Forests

B. CURRICULAR CHANGES (If new major, concentration or minor, need plan of study, description, proposed head count, UEAC justification [See CSRC Box for example])

Aquatic Science Major Changes:

Proposed Changes: Both concentrations in the FNR Aquatic Sciences Major (i.e., Fisheries and Marine and Freshwater Biology) currently include FNR 48800 Global Environmental Issues as an alternate for FNR 23000 World's Forests and Society. We propose to remove FNR 48800 as an alternate for FNR 23000 for both concentrations.

Justification/Rationale: FNR 48800 is slated to be deleted from the course catalog, and the option for Aquatic Sciences students to take this course instead of FNR 23000 needs to be removed from the curriculum.

Expected Impact to other Programs: No impact expected

Furniture Design Minor changes:

Proposed Changes: The revision of Furniture Design Minor is proposed to consist of four core courses (12 CR) and two selectives (6 CR, chosen from a recommended list) for a total of 18 credits. Recommended courses were selected with the aim to strengthen the design, graphical and visualization skills of students in this minor. Proposed changes were discussed and approved by AD cooperators. The revised structure should benefit the broader population of students interested in the Furniture Design Minor.

Justification/Rationale: The current Furniture Design Minor was composed of 6 courses (18 credits, all required), including two FNR courses that are no longer offered (FNR 41800 and 42500). The content of the deleted courses was absorbed by three FNR courses that are included in the minor core (FNR 31110; FNR 41910; FNR 48410). AD 53500 was previously used as a core course but was reevaluated. We propose to replace

this course in the core with a lower level Furniture Development course (AD 34000) and allow students to take the more advanced Furniture Design course (AD 53500) as a selective. The structure of the current Furniture Design Minor and proposed revisions are shown below. Furniture Design minor is small, and there should be no impact or very minimal impact on selective courses.

Expected Impact to other Programs: The Furniture Design minor is small, and there should be no impact or very minimal impact on selective courses.

Supporting Document

- A. Short Title: Big Data in Forest Research**
- B. Semester(s) Offered: Spring**
- C. Schedule Type and Hours: LEC/75/2/16)**
- D. Credits: 3.0**
- E. Justification for the course:** Data science-focused courses are core to the Ag Research and Graduate Education's initiative on Preparing Graduate Students for Our Data-Rich Future. However, forestry courses in which data sciences are central are limited, especially at the graduate level. FNR 59800 Big Data, AI, and forests is developed as a data science-central course to prepare graduate students for the upcoming challenges and opportunities in data-driven research.
- F. Expected Impact to other Programs:** We do not anticipate any impacts to other programs resulting from adding this course.
- G. Course Description for University Catalog:** This course is focused on big data analysis and its application in ecological research. The lecture will cover the challenges we encounter in big data ecological research, and the approaches to overcome these challenges. Real-time forest inventory and wildlife survey data at national and continental levels will be utilized in this course, and actual high-impact research projects will be introduced as case studies to inform students of the state-of-the-art in this subject area. High-performance computing clusters will be utilized for big data analysis. This course is also open to non-forestry majors. We will introduce basic machine learning techniques that are applicable to other subject areas. Guest lectures will cover big data analyses in microbiomes, internet-of-things, and data management and optimization/decimation for collaborative Virtual Reality experiences. The class will be evaluated through a final project, for which students will work in a group setting to develop a 'mini' research manuscript with a title of their own selection. All the groups are encouraged to submit their manuscript for publication at peer-reviewed journals, and those whose manuscripts have passed the initial journal screening will get extra bonus points.
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req): N/A**
- I. Restrictions: None**
- J. Learning Outcomes:** This course seeks to provide students with exposure to and understanding of ecological research in the big data era. The students who have completed this course are expected to be able to: 1. Define big data, 2. Think critically about unique challenges involved with big data, 3. Use problem-solving skills to overcome big-data challenges, 4. Compile and error-check big data, 5. Use statistics to analyze big data, 6. Use machine learning to analyze big data, 7. Acquire basic skills to publish big data studies, 8. Use high-performance computing (HPC) for big data analysis.

K. If Applicable to College of Agriculture Core

This course will **will not** be nominated for inclusion on College of Agriculture Core.

L. Instructor Information: Jingjing Liang, Ph.D., Assistant Professor, Dept. of Forestry & Natural Resources; Office: PFEN G021B, Email: jjliang@purdue.edu

M. Link to curriculog (if applicable): [Click here to enter text.](#)

FURNITURE DESIGN MINOR*

FNR & AD Departments

Credit hours Required: 18

Minor Code: FURN

Credits	Course #	Title	
		Required Courses	
(3)	AD 53500	Furniture Design	Recommended lower level
(3)	AD 34000	Furniture Development	
(3)	FNR 31110	Structure, Identification, and Properties of Woody Biomaterials	
(3)	FNR 41910	Furniture Product Development and Strength Design	
(3)	FNR 48410	Sustainable Furniture Design for CNC Manufacturing	
(3)	FNR 41800	Properties of Wood Related to Manufacturing	Not offered
(3)	FNR 42500	Secondary Wood Products Manufacturing	Not offered
(6)	Selective Courses		
		Recommended Selective Courses	
(3)	AD 21500	Materials and Processing	
(3)	AD 22800	Visual Communication Design Computing	
(3)	AD 25600	Presentation Techniques	
(3)	AD 53500	Furniture Design	
(3)	CGT 10301	Geometric Modeling Applications	
(3)	MET 10200	Production Design and Specifications	
(3)	FNR 49800	Topical Problems in Furniture Design (with FNR approval)	

Notes: Other FNR 49800 or FNR 59800 courses, with FNR approval may be used.

Name: _____ PUID: _____ Date: _____

Required Major Courses (60 credits)

- _____ (3) FNR 12500 Environmental Science & Conservation (satisfies Science, Technology & Society Selective for core)
- _____ (3) FNR 20100 Marine Biology
- _____ (3) FNR 21000 Natural Resources Information Management
- _____ (3) FNR 22310 or POL 22300 Introduction to Introduction to Environmental Policy
- _____ (3) FNR 23000 World's Forests and Society **or FNR 48800 Global Environmental Issues**
- _____ (3) FNR 24150 Ecology & Systematics of Fishes, Amphibians, and Reptiles
- _____ (1) FNR 24250 Laboratory in Ecology & Systematics of Fishes, Amphibians, and Reptiles
- _____ (3) FNR 25150 Ecology & Systematics of Mammals and Birds
- _____ (1) FNR 25250 Laboratory in Ecology & Systematics of Mammals and Birds
- _____ (3) FNR 30500 Conservation Genetics
- _____ (3) FNR 35100 Aquatic Sampling Techniques ^{cc}
- _____ (1) FNR 37010 Natural Resource Practicum
- _____ (5) FNR 37100 Fisheries and Aquatic Sciences Practicum
- _____ (3) FNR 37500 Human Dimensions of Natural Resource Management
- _____ (3) FNR 38400 Statistics for Natural Resources
- _____ (4) FNR 38500 Fish Biology & Ecology
- _____ (3) FNR 40100 Limnology
- _____ (3) FNR 45200 Aquaculture
- _____ (4) FNR 45600 Fish and Marine Population Dynamics
- _____ (2) FNR 45700 Practical Fisheries Management (**Capstone**)
- _____ (1) FNR 47000 Fundamentals of Planning
- _____ (2) FNR 52700 Ecotoxicology or FNR 52800 Wildlife and Environmental Forensics or FNR 52900 Disease Ecology

Major Selectives (6 credits)

- _____ (3) Aquatics Selective
- _____ (3) Aquatics Selective

Other Departmental/ Program Course Requirements (50-51 credits)

- _____ (0.5) AGR 10100 Introduction to the College of Agriculture and Purdue University
- _____ (0.5) AGR 11900 Introduction to FNR Academic Programs
- _____ (3) AGECE 20300 Intro Microecon for Food and Agribusiness or AGECE 20400 Intro to Resources Economics and Environ Policy or ECON 25100 Microecon
- _____ (3) AGRY 25500 Soil Science Or AGRY 27000 Forest Soils
- _____ (4) BIOL 11000 Fundamentals of Biology I
- _____ (2) BIOL 28600 Introduction to Ecology and Evolution
- _____ (4) BTNY 11000 Introduction to Plant Science
- _____ (3) CHM 11100 General Chemistry (*satisfies Science #1 for core*)
- _____ (3) CHM 11200 General Chemistry (*satisfies Science #2 for core*)
- _____ (3) ENGL 10600 First-Year Composition or ENGL 10800 Accel First-Yr Compos or HONR 19903 Interdisc Approach to Writing
- _____ (3) MA 16010 Applied Calculus I (*satisfies Quantitative Reasoning for core*)
- _____ (3) PHIL 11000 Ethics or PHIL 28000 Ethics and Animals or PHIL 29000 Environmental Ethics
- _____ (3) Physical Science Selective³
- _____ (3) STAT 30100 Elementary Statistical Methods (*satisfies Information Literacy for core*)
- _____ (3) COM 11400 Fundamentals of Speech Communication or COM 21700 Science Writing and Presentation or EDPS 31500 Collaborative Leadership: Listening (*satisfies Oral Communication for core*)
- _____ (3) Written or Oral Communications Selective²
- _____ (3) Humanities or Social Science Selective¹
- _____ (3) Humanities or Social Science Selective¹

Electives (4 credits)

- _____ (4) Elective

University Core Requirements (<http://www.purdue.edu/provost/initiatives/curriculum/course.html>)

Human Cultures Humanities	<input type="checkbox"/>	_____	Science, Technology & Society Selective	<input type="checkbox"/>	_____
Human Cultures Behavioral/Social Science	<input type="checkbox"/>	_____	Written Communication	<input type="checkbox"/>	_____
Information Literacy	<input type="checkbox"/>	_____	Oral Communication	<input type="checkbox"/>	_____
Science Selective	<input type="checkbox"/>	_____	Quantitative Reasoning	<input type="checkbox"/>	_____
Science Selective	<input type="checkbox"/>	_____			

College of Agriculture & University Level Requirements (https://ag.purdue.edu/oap/Pages/core_requirements.aspx)

3 credits Multicultural Awareness	<input type="checkbox"/>	_____			
9 credits International Understanding	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
9 credits of Hum. And/or Social Sciences outside the College of Agriculture	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
3 credits of Hum. And/or Social Science at 30000 or higher	<input type="checkbox"/>	_____			

Aquatic Sciences – Fisheries

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
0.5	AGR 10100 Introduction to the College of Agriculture and Purdue University		4	BTNY 11000 Introduction to Plant Science	
0.5	AGR 11900 Introduction to FNR Academic Programs		3	CHM 11200 General Chemistry II	CHM 11100
4	BIOL 11000 Fundamentals of Biology I		3	COM 11400 Fundamentals of Speech or COM 21700 Science Writing and Presentation or EDPS 31500 Collaborative Leadership: Listening	
3	CHM 11100 General Chemistry I		3	FNR 12500 Environmental Science & Conservation	
3	ENGL 10600 First-Year Composition or ENGL 10800 Accel First-Yr Compos or HONR 19903 Interdisc Approach to Writing		4	Elective	
3	MA 16010 Applied Calculus I	ALEKS 75+			
14			17		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	Economics Selective		3	AGRY 25500 Soil Science of AGRY 27000 Forest Soils	CHM 11100
3	FNR 20100 Marine Biology	C- or better in BIOL 11000	2	BIOL 28600 Introduction to Ecology and Evolution	BIOL 11000
3	FNR 24150 Ecology & Systematics of Fishes, Amphibians, and Reptiles		3	FNR 21000 Natural Resource Information Management	
1	FNR 24250 Laboratory in Ecology & Systematics of Fishes, Amphibians, and Reptiles	C- or better in BIOL 11000	3	FNR 25150 Ecology & Systematics of Mammals and Birds	C- or better in BIOL 11000
3	STAT 30100 Elementary Statistical Methods		1	FNR 25250 Laboratory in Ecology & Systematics of Mammals and Birds	BIOL 11000 or BTNY 11000
3	Written or Oral Communication Selective		3	FNR 35100 ^{cc} Aquatic Sampling Techniques	C- or better in FNR 24250, FNR 25250 MA 16010, STAT 30100
16			15		

Credits	Summer Session	Prerequisite
1	FNR 37010 Natural Resource Practicum	FNR 21000, 35100
5	FNR 37100 Fisheries & Aquatic Sciences Practicum	FNR 24250, 37010, 35100
6		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	FNR 22310 Introduction to Environmental Policy Or POL 22300 Introduction to Environmental Policy		3	FNR 30500 Conservation Genetics	BIOL 28600, STAT 30100
4	FNR 45600 Fish and Marine Population Dynamics		3	FNR 38400 Statistics for Natural Resources	
3	Humanities or Social Science Selective		4	FNR 38500 Fish Biology and Ecology	
3	FNR 23000 World's Forests and Society or FNR 48800 Global Environmental Issues		3	FNR 40100 Limnology	
13			13		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	Aquatics Selective		2	FNR 52700 Ecotoxicology or FNR 52800 Wildlife and Environmental Forensics or FNR 52900 Disease Ecology	
3	Aquatics Selective		3	PHIL 11000 Ethics or PHIL 28000 Ethics and Animals or PHIL 29000 Environmental Ethics	
2	FNR 45700 Practical Fisheries Management (capstone)		3	FNR 37500 Human Dimensions of Nat Res Mgmt.	
1	FNR 47000 Fundamentals of Planning		3	FNR 45200 Aquaculture	
3	Physical Science Elective		3	Humanities or Social Sciences Selective	
12			14		

- 1) 120 credits listed above are required for Bachelor of Science degree.
- 2) 2.0 Graduation GPA required for Bachelor of Science degree.
- 3) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.
- 4) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).
- 5) CC = is considered a critical course

See next page for all supplemental information

The student is ultimately responsible for knowing and completing all degree requirements.
myPurdue Plan is knowledge source for specific requirements and completion

Aquatic Sciences – concentration Fisheries

All prerequisites must be met

¹Humanities and Social Science Selective (6 credits)

See approved list at: https://ag.purdue.edu/oap/pages/core-social_humanities.aspx

²Written or Oral Communication Selective (3 credits)

AGR 20100 Communication Across Culture
ASL 10000-59900

COM 20000-59900
ENGL 20000-59900

YDAE 44000 Methods of Teaching
Agriculture Education

³FNR Physical Science Selective (3 credits)

AGRY 10000-59999
ASTR 10000-59999
CHEM 10000-59999
EAPS 10000-59999
PHYS 10000-59999

⁴Aquatic Selective (6 credits)

AGRY 33700 Environmental Hydrology
FNR 37800 Marine Biology Practicum
FNR 45300 Fish Physiology

FNR 45800 Advanced Marine Biology
FNR 52700 Ecotoxicology
FNR 52800 Wildlife and Environmental Forensics

FNR 52900 Disease Ecology
FNR 54300 Conservation Biology
SFS 31100 Aquaponics

Name: _____ PUID: _____ Date: _____

Required Major Courses (61 credits)

- _____ (3) FNR 12500 Environmental Science & Conservation (satisfies Science, Technology & Society Selective for core)
- _____ (3) FNR 20100 Marine Biology
- _____ (3) FNR 21000 Natural Resources Information Management
- _____ (3) FNR 22310 or POL 22300 Introduction to Introduction to Environmental Policy
- _____ (3) FNR 23000 World's Forests and Society **or FNR 48800 Global Environmental Issues**
- _____ (3) FNR 24150 Ecology & Systematics of Fishes, Amphibians, and Reptiles
- _____ (1) FNR 24250 Laboratory in Ecology & Systematics of Fishes, Amphibians, and Reptiles
- _____ (3) FNR 25150 Ecology & Systematics of Mammals and Birds
- _____ (1) FNR 25250 Laboratory in Ecology & Systematics of Mammals and Birds
- _____ (3) FNR 30500 Conservation Genetics
- _____ (3) FNR 35100 Aquatic Sampling Techniques^{cc}
- _____ (1) FNR 37010 Natural Resource Practicum
- _____ (5) FNR 37100 Fisheries & Aquatic Sciences Practicum
- _____ (3) FNR 37500 Human Dimensions of Natural Resource Management
- _____ (3) FNR 37800 Marine Biology Practicum
- _____ (3) FNR 38400 Statistics for Natural Resources
- _____ (4) FNR 38500 Fish Biology & Ecology
- _____ (3) FNR 40100 Limnology
- _____ (4) FNR 45600 Fish and Marine Population Dynamics
- _____ (3) FNR 45800 Advanced Marine Biology (**Capstone**)
- _____ (1) FNR 47000 Fundamentals of Planning
- _____ (2) FNR 52700 Ecotoxicology or FNR 52800 Wildlife and Environmental Forensics or FNR 52900 Disease Ecology

Major Selectives (3 credits)

- _____ (3) Aquatics Selective³

Other Departmental/ Program Course Requirements (50-51 credits)

- _____ (3) AGECE 20300 Introductory Microeconomics Food and Agribusiness or AGECE 20400 Introduction to Resources Economics and Environmental Policy or ECON 25100 Microeconomics (satisfies Human Culture Behavioral/Social Science for core)
- _____ (0.5) AGR 10100 Introduction to the College of Agriculture and Purdue University
- _____ (0.5) AGR 11900 Introduction to FNR Academic Programs
- _____ (3) AGRY 25500 Soil Science Or AGRY 27000 Forest Soils
- _____ (4) BIOL 11000 Fundamentals of Biology I
- _____ (2) BIOL 28600 Introduction to Ecology and Evolution
- _____ (4) BTNY 11000 Introduction to Plant Science
- _____ (3) CHM 11100 General Chemistry (*satisfies Science #1 for core*)
- _____ (3) CHM 11200 General Chemistry (*satisfies Science #2 for core*)
- _____ (3) COM 11400 Fundamentals of Speech Communication or COM 21700 Science Writing and Presentation or EDPS 31500 Collaborative Leadership: Listening (*satisfies Oral Communication for core*)
- _____ (3) EAPS 40300 Physical Oceanography
- _____ (3) ENGL 10600 First-Year Composition or ENGL 10800 Accel First-Yr Compos or HONR 19903 Interdisc Approach to Writing
- _____ (3) MA 16010 Applied Calculus I (*satisfies Quantitative Reasoning for core*)
- _____ (3) PHIL 11100 Ethics or PHIL 28000 Ethics and Animals or PHIL 29000 Environmental Ethics (satisfies Human Cultures Humanities for core)
- _____ (3) STAT 30100 Elementary Statistical Methods (*satisfies Information Literacy for core*)
- _____ (3) Humanities or Social Science Selective¹
- _____ (3) Humanities or Social Science Selective¹
- _____ (3) Written or Oral Communications Selective²

Electives (6 credits)

- _____ (6) Elective

University Core Requirements (<http://www.purdue.edu/provost/initiatives/curriculum/course.html>)

Human Cultures Humanities	<input type="checkbox"/>			Science, Technology & Society Selective	<input type="checkbox"/>	
Human Cultures Behavioral/Social Science	<input type="checkbox"/>			Written Communication	<input type="checkbox"/>	
Information Literacy	<input type="checkbox"/>			Oral Communication	<input type="checkbox"/>	
Science Selective	<input type="checkbox"/>			Quantitative Reasoning	<input type="checkbox"/>	
Science Selective	<input type="checkbox"/>					

College of Agriculture & University Level Requirements (https://ag.purdue.edu/oap/Pages/core_requirements.aspx)

3 credits Multicultural Awareness	<input type="checkbox"/>				
9 credits International Understanding	<input type="checkbox"/>		<input type="checkbox"/>		
9 credits of Hum. And/or Social Sciences outside the College of Agriculture	<input type="checkbox"/>		<input type="checkbox"/>		
3 credits of Hum. And/or Social Science at 30000 or higher	<input type="checkbox"/>				

Aquatic Sciences –Marine and Freshwater Biology

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
0.5	AGR 10100 Introduction to the College of Agriculture and Purdue University		4	BTNY 11000 Introduction to Plant Science	
0.5	AGR 11900 Introduction to FNR Academic Programs		3	CHM 11200 General Chemistry II	CHM 11100
4	BIOL 11000 Fundamentals of Biology I		3	COM 11400 Fundamentals of Speech or COM 21700 Science Writing and Presentation or EDPS 31500 Collaborative Leadership: Listening	
3	CHM 11100 General Chemistry I		3	FNR 12500 Environmental Science & Conservation	
3	ENGL 10600 First-Year Composition or ENGL 10800 Accel First-Yr Compos or HONR 19903 Interdisc Approach to Writing		4	Elective	
3	MA 16010 Applied Calculus I	ALEKS 75+			
14			17		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	AGEC 20300 Introductory Microeconomics Food and Agribusiness or AGECE 20400 Introduction to Resources Economics and Environmental Policy or ECON 25100 Microeconomics (satisfies Human Culture Behavioral/Social Science for core)		3	AGRY 25500 Soil Science of AGRY 27000 Forest Soils	CHM 11100
3	FNR 20100 Marine Biology	C- or better in BIOL 11000	2	BIOL 28600 Introduction to Ecology and Evolution	BIOL 11000
3	FNR 24150 Ecology & Systematics of Fishes, Amphibians, and Reptiles		3	FNR 21000 Natural Resource Information Management	
1	FNR 24250 Laboratory in Ecology & Systematics of Fishes, Amphibians, and Reptiles	C- or better in BIOL 11000	3	FNR 25150 Ecology & Systematics of Mammals and Birds	C- or better in BIOL 11000
3	STAT 30100 Elementary Statistical Methods		1	FNR 25250 Laboratory in Ecology & Systematics of Mammals and Birds	BIOL 11000 or BTNY 11000
3	Written or Oral Communication Selective		3	FNR 35100 ^{CC} Aquatic Sampling Techniques	C- or better in FNR 24250, FNR 25250 MA 16010, STAT 30100
16			15		

Credits	Summer Session	Prerequisite
1	FNR 37010 Natural Resource Practicum	FNR 21000, 35100
5	FNR 37100 Fisheries & Aquatic Sciences Practicum	FNR 24250, 37010, 35100
6		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	FNR 22310 Introduction to Environmental Policy Or POL 22300 Introduction to Environmental Policy		3	FNR 30500 Conservation Genetics	BIOL 28600, STAT 30100
3	FNR 37800 Marine Biology Practicum		3	FNR 38400 Statistics for Natural Resources	
4	FNR 45600 Fish and Marine Population Dynamics		4	FNR 38500 Fish Biology and Ecology	
3	FNR 23000 World's Forests and Society or FNR 48800 Global Environmental Issues		3	FNR 40100 Limnology	
13			13		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4 th Year	Prerequisite
3	Aquatics Selective		2	FNR 52700 Ecotoxicology or FNR 52800 Wildlife and Environmental Forensics or FNR 52900 Disease Ecology	
3	EAPS 40300 Physical Oceanography		3	FNR 37500 Human Dimensions of Nat Res Mgmt.	
3	PHIL 11100 Ethics or PHIL 28000 Ethics and Animals or PHIL 29000 Environmental Ethics (satisfies Human Cultures Humanities for core)		3	FNR 45800 Advanced Marine Biology (capstone)	
1	FNR 47000 Fundamentals of Planning		3	Humanities or Social Sciences Selective	
3	Humanities or Social Science Selective		2	Elective	
13			13		

- 1) 120 credits listed above are required for Bachelor of Science degree.
- 2) 2.0 Graduation GPA required for Bachelor of Science degree.
- 3) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.
- 4) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).
- 5) CC = is considered a critical course

See next page for all supplemental information

The student is ultimately responsible for knowing and completing all degree requirements.
myPurdue Plan is knowledge source for specific requirements and completion

Aquatic Sciences – concentration Marine and Freshwater Biology

All prerequisites must be met

¹Humanities and Social Science Selective (6 credits)

See approved list at: https://ag.purdue.edu/oap/pages/core-social_humanities.aspx

²Written or Oral Communication Selective (3 credits)

AGR 20100 Communication Across Culture
ASL 10000-59900

COM 20000-59900
ENGL 20000-59900

YDAE 44000 Methods of Teaching
Agriculture Education

³Aquatic Selective (3 credits)

AGRY 33700 Environmental Hydrology
FNR 45200 Aquaculture
FNR 45300 Fish Physiology

FNR 45700 Practical Fisheries Management
FNR 52700 Ecotoxicology
FNR 52800 Wildlife and Environmental Forensics

FNR 52900 Disease Ecology
FNR 54300 Conservation Biology
SFS 31100 Aquaponics

Department of Horticulture and Landscape Architecture

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: SFS 41100
Long Title: Structural Racism in US Agriculture

Prefix and Course Number: SFS 41200
Long Title: Colonialism, Globalization, and Food Justice

Prefix and Course Number: SFS 41300
Long Title: The Cultures and Agricultures of the United States

Prefix and Course Number: HORT 57200 (Cross list with NRES 57200)
Long Title: Stakeholder Involvement in Landscape Management

B. CURRICULAR CHANGES (If new major, concentration or minor, need plan of study, description, proposed head count, UEAC justification [See CSRC Box for example])

Major requirement changes: Sustainable Food and Farm Systems

Justification/Rationale: Curricular changes represent a modest 5-year update of the SFS program based on student comments as well as the replacement of classes lost over the years due to reallocation of teaching duties or retirements in other departments. They also correct the alignment and streamlining of classes in response to student feedback, promote classes from selectives lists into the core-required list, and introduce new classes teaching diversity, equity, and inclusion. The revised curriculum will be more easily customized. Flexibility has been important for SFS students to date, and they have added various double-major, minor, and certificate options to their programs. These changes will maintain a rigorous program while enabling students to customize and add value.

Expected Impact to other Programs: None

Additions:

- **AGEC 20400 Introduction to Resource Economics and Environmental Policy**
Previously, AGEC 20300 was the requirement to meet the College of Agriculture economics selective for SFS students. AGEC 20400 is being added as another option to meet the COA economics selective. The addition of AGEC 20400 is expected to result in an additional four to six seats per semester in the course. Discussions with AGEC indicate seats should be available.

- **ANSC 24000 Principles of Animal Production (new course)**
Previously, ANSC 10200 was sole requirement; now either ANSC 10200 or 24000 will satisfy requirement. This could result in a yearly split of the six-ten students between the two courses (percentage split could be smaller). Impact minimal.
- **HORT 43500; SFS 48500; HORT Selective**
All are internal and have no impact to other programs.

Changes/removals:

- **Biological Sciences Selective**
Adding BTNY 12000 will facilitate students changing majors more easily; moving from requiring BIOL 11100 and BTNY 11000 to a biological selective list (choose two of three courses listed) will have minimal impact.
- **Agronomy/ Horticulture Selective to Elective**
Previously, 20 courses were listed in this category for students to achieve three credits. Change to free elective will have minimal impact.
- **AGRY 10500 removal**
Result in six-ten fewer seats required each semester.
- **Animal Sciences Selective**
Previously, six courses were listed to choose one course. Removal will have minimal impact.
- **Business Management Selective**
Previously, 12 courses listed to choose one course. Removal will have minimal impact.
- **Economics Selective**
Previously, five courses listed to choose one course. Removal will have minimal impact.
- **Ecology/ Environment Selective**
Change from six credits required to three credits required. Removal will have minimal impact.
- **Food Science Selective**
Previously, ten courses listed to choose one course. Removal will have minimal impact.
- **Physiology or Production Selective**
Previously, four courses to choose one course. Removal will have minimal impact.

Supporting Document
SFS 41100

- A. Short Title:** Structural Racism in US Ag
- B. Semester(s) Offered:** Spring
- C. Schedule Type and Hours:** LEC/50min per mtg/1 mtg per wk/16 wks per term
- D. Credits:** 1.0
- E. Justification for the course:** It is necessary for students to uncover the mechanisms through which Indigenous and Black Americans have lost land and farms through time, and white Americans have gained them. It is essential that our undergraduate students understand the institutional and social structures that have led to low diversity, extreme levels of inequality and a lack of inclusiveness in American agriculture if they are to become agents of change. Individual actions are necessary but insufficient. The governmental, institutional, and social structures that lead to racist outcomes must also be challenged. This course will link directly with two other courses: 1) Colonialism, Globalization, and Food Justice, and 2) The Cultures and Agricultures of the United States, to present our undergraduates with a 3-credit sequences of classes on the subjects of race-in-agriculture that will provide a solid basis for understanding the inequities existing in American agriculture and the means through which they might be remediated.
- F. Expected Impact to other Programs:** This knowledge will complement other courses that aim to increase students' understanding of DEI issues, particularly AGR 20100 Communicating Across Cultures, that provide vital education in areas such as racism, bias, and white privilege. Here, however, we will bring these issues to light in an explicitly agricultural context.
- G. Course Description for University Catalog:** A discussion-based exploration of the history and legacies of structural racism in American agriculture. We will analyze the barriers to success faced by non-white farmers in the US, the structures that have oppressed minority groups in agriculture, and ways in which these forces might be reversed or resisted.
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None
- I. Restrictions:** None
- J. Learning Outcomes:** 1) To deepen an understanding of racism, bias, and white privilege. 2) To develop an understanding of the governmental, institutional, and social structures that have led to racial and ethnic inequities in American agriculture. 3) To understand the relationship of all peoples with American agriculture, whether indigenous or arriving as enslaved person or immigrant, and the legacies of those relationships. 4) To analyze the ways in which immigration and foreign policy impact the US food system. 5) To learn to communicate issues of structural racism in American agriculture effectively. 6) To construct ideas that might promote a more equitable food system.

K. If Applicable to College of Agriculture Core

This course **will** **will not** be nominated for inclusion on College of Agriculture Core.

College of Agricultural Core	Check all that apply
1. Mathematics and Sciences	<input type="checkbox"/>
2. Written and Oral Communication	<input type="checkbox"/>
3. Humanities and Social Sciences	<input type="checkbox"/>
4. Multicultural Awareness	<input checked="" type="checkbox"/>
5. International Understanding	<input type="checkbox"/>
6. Capstone	<input type="checkbox"/>

L. Instructor Information: Steve Hallett and Linda Prokopy, HLA.

M. Link to curriculog (if applicable): [Click here to enter text.](#)

Supporting Document
SFS 41200

- A. Short Title:** Colonial Globaln Food Justice
- B. Semester(s) Offered:** Spring
- C. Schedule Type and Hours:** LEC/50min per mtg/1 mtg per wk/16 wks per term
- D. Credits:** 1.0
- E. Justification for the course:** One of the most powerful ways to draw students to a deeper understanding of modern injustices is to draw a historical through-line to their origins. The modern injustices under consideration here are those faced by the citizens of poverty-stricken countries and the poverty-stricken citizens of wealthy countries such as the United States. The origins under consideration here are the European colonial empires of the 16-20th centuries. This course will link the problems of structural racism, poverty, and food insecurity to the larger forces that have driven the development of global and national agricultural and food policy, and will encourage students to consider what changes might be possible. This course will link directly with two other courses: 1) Structural Racism in American Agriculture, and 2) The Cultures and Agricultures of the United States, to present our undergraduates with a 3-credit sequences of classes on the subjects of race-in-agriculture that will provide a solid basis for understanding the inequities existing in American agriculture and the means through which they might be remediated.
- F. Expected Impact to other Programs:** This knowledge will complement other courses that aim to increase students' understanding of DEI issues, particularly AGR 20100 Communicating Across Cultures that provide vital education in areas such as racism, implicit bias, and white privilege. Here, however, we will bring these issues to light in an explicitly agricultural context.
- G. Course Description for University Catalog:** This course will uncover the foundations of inequities in access to healthy, nutritious food from the first era of colonization to the modern era of globalization. The course will make students aware of the racial and ethnic inequities in farming and food systems and consider mechanisms of decolonization: resistance against the status quo and the development of new food systems.
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None
- I. Restrictions:** None
- J. Learning Outcomes:** 1) Understand the emergence of modern food systems through the eras of colonization and globalization. 2) Analyze the factors that contribute to inequities in access to healthy, nutritious food. 3) Investigate global and local food justice movements. 4) Evaluate the legacies of colonialism in today's food deserts. 5) Investigate local food movements, such as urban agriculture, represent attempts at decolonization. 6)

Investigate the activism of indigenous groups around the world seeking decolonization and food justice. 7) Consider policies to reduce inequities in food systems

K. If Applicable to College of Agriculture Core

This course **will** **will not** be nominated for inclusion on College of Agriculture Core.

College of Agricultural Core	Check all that apply
1. Mathematics and Sciences	<input type="checkbox"/>
2. Written and Oral Communication	<input type="checkbox"/>
3. Humanities and Social Sciences	<input type="checkbox"/>
4. Multicultural Awareness	<input checked="" type="checkbox"/>
5. International Understanding	<input type="checkbox"/>
6. Capstone	<input type="checkbox"/>

L. Instructor Information: Theoneste Nzaranyimana, Kathryn Orvis, and Steve Hallett, HLA

M. Link to curriculog (if applicable): [Click here to enter text.](#)

Supporting Document
SFS 41300

- A. Short Title:** Cultures and Agricultures US
- B. Semester(s) Offered:** Spring
- C. Schedule Type and Hours:** LEC/50min per mtg/1 mtg per wk/16 wks per term
- D. Credits:** 1.0
- E. Justification for the course:** This course will link directly with two other courses: 1) Colonialism, Globalization, and Food Justice, and 2) Structural Racism in American Agriculture, to present our undergraduates with a solid basis for understanding the inequities existing in American agriculture, and the means through which they might be remediated.
- F. Expected Impact to other Programs:** This knowledge will complement other courses that aim to increase students' understanding of DEI issues, particularly AGR 20100 Communicating Across Cultures that provide vital education in areas such as racism, implicit bias, and white privilege. Here, however, we will bring these issues to light in an explicitly agricultural context.
- G. Course Description for University Catalog:** The United States is a vast country encompassing many climates, geographies, and human histories. This course will investigate the diversity of the United States by examining a dozen locations with respect to people-and-place. How have people shaped these places, and how have these places shaped the people who have lived in them?
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None
- I. Restrictions:** None
- J. Learning Outcomes:** 1) Understand the different types of land use, especially agriculture, in different regions of the United States, and consider their sustainability. 2) Investigate the cultures and agricultures of American Indian tribes prior to first contact with Europeans. 3) Analyze the displacement and relocation of American Indian tribes in specific regions. 4) Analyze the nature and legacies of slavery, and the means by which African Americans have been excluded from land ownership since reconstruction. 5) Consider the contributions of Asian Americans to the cultures and agricultures of the United States. 6) Investigate changes to the natural, built, and cultural landscapes of the United States through time. 7) Consider how the sustainability of cultures, economies, environmental health, and agriculture can (or cannot) be sustained in different regions of the United States

K. If Applicable to College of Agriculture Core

This course **will** **will not** be nominated for inclusion on College of Agriculture Core.

College of Agricultural Core	Check all that apply
1. Mathematics and Sciences	<input type="checkbox"/>
2. Written and Oral Communication	<input type="checkbox"/>
3. Humanities and Social Sciences	<input type="checkbox"/>
4. Multicultural Awareness	<input checked="" type="checkbox"/>
5. International Understanding	<input type="checkbox"/>
6. Capstone	<input type="checkbox"/>

L. Instructor Information: Steve Hallett, HLA.

M. Link to curriculog (if applicable): [Click here to enter text.](#)

**Supporting Document
HORT 57200**

- A. Short Title:** Stakeholder Involvement Land Mgmt
- B. Semester(s) Offered:** Fall
- C. Schedule Type (e.g. Lecture/Lab) and Hours:** LEC/110/1/16
- D. Credits:** 2.0
- E. Justification for the course:** Engaging the public in natural resource decision making is an increasingly important and complex task. Virtually every state and federal agency mandates some form of public involvement in decision making. Public participation involves any process that enables people to contribute to policies and plans. Increasingly participation is moving from a two-way sharing of information to a more collaborative structure where diverse stakeholders work together to reach mutually agreeable solutions.
- F. Expected Impact to other Programs:** This course does not duplicate other efforts on campus. It will enhance educational opportunities for students who want to learn more about engaging with the public and other stakeholders.
- G. Course Description for University Catalog:** Engaging the public in natural resource decision making is an increasingly important and complex task. This course provides an overview of how to include diverse stakeholders in decision making, collaboration, and conflict resolution through readings, class discussions, and role plays.
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None.
- I. Restrictions:** None.
- J. Learning Outcomes:** 1. Discuss the complexity of involving stakeholders in decisions about landscape management; 2. Understand the factors that make collaborative management successful and unsuccessful; 3. Use proven techniques for resolving conflicts; 4. Demonstrate knowledge of a variety of participatory and facilitation techniques.
- K. Applicable to College of Agriculture Core**
This course will **will not** be nominated for inclusion on College of Agriculture Core.
- L. Instructor Information:** Dr. Linda Prokopy Professor and Department Head Purdue University, lprokopy@purdue.edu
- M. Link to curriculog (if applicable):** [Click here to enter text.](#)

Name: _____ PUID: _____ Date: _____

Required Major Courses (13 ~~16~~-credits)

- _____ (3) SFS 21000^{cc} Small Farm Experience I (Spring)
- _____ (3) SFS 21100^{cc} Small Farm Experience II (Fall)
- _____ (3) SFS 30100 Agroecology
- _____ (3) SFS 30200 Principles of Sustainability
- _____ (1) SFS 35100 SFS Capstone Project

Other Departmental/Program Course Requirements (100-102 ~~85-86~~ credits) (See Advising Resources)

- _____ (3) AGEC 20300 Introduction to Microeconomics or AGEC 20400 Introduction to Resource Economics and Environmental Policy
(satisfies College of Ag Economics Selective and UCC Human Cultures: Behavioral/Social Sciences for-core)
- _____ (0.5) AGR 10100 Introduction to the College of Agriculture and Purdue University
- _____ (0.5) AGR 12000 Introduction to Horticulture and Landscape Architecture Academic Programs
- _____ (3) AGRY 25500^{cc} Soil Science or AGRY 27000 Forest Soils
- _____ (3) AGRY 32000 Genetics
- _____ (3) ANSC 10200 Introduction to Animal Agriculture *(satisfies UCC Science, Technology & Society Selective for core)*
or ANSC 24000 Principles of Animal Production *(does not satisfy UCC Science, Technology & Society Selective)**
- _____ (4) BIOL 11000 Fundamentals of Biology or BTNY 11000 Introduction to Plant Sciences or BTNY 12000 Principles of Plant Biology I
- _____ (4) BIOL 11000 Fundamentals of Biology or BTNY 11000 Introduction to Plant Sciences or BTNY 12000 Principles of Plant Biology I
- _____ (3-4) BTNY 20700 The Microbial World or BIOL 22100 Introduction to Microbiology
- _____ (3) CHM 11100 General Chemistry *(satisfies UCC Science #1 for-core)*
- _____ (3) CHM 11200 General Chemistry *(satisfies UCC Science #2 for-core)*
- _____ (3) ~~AGRY 10500 Crop Production~~ or HORT 10100 Fundamentals of Horticulture
- _____ (4) HORT 43500 Developing an Agricultural Startup
- _____ (3) MA 15800 Precalculus – Functions and Trigonometry *(satisfies UCC Quantitative Reasoning for-core)*
- _____ (3) SFS 48500 Environmental Communication *(satisfies Written or Oral Communication Selective 20000+level English or Communication Selective)*
- _____ (3) STAT 30100 Elementary Statistics Methods *(satisfies UCC Information Literacy for-core)*
- _____ ~~(3) Agronomy/Horticulture Selective²~~
- _____ ~~(3) Animal Science Selective³~~
- _____ ~~(3) Business Management Selective~~
- _____ ~~(6 3) Ecology/Environment Selective²~~
- _____ (3) Horticulture Selective³
- _____ ~~(3) Economics Selective⁶~~
- _____ ~~(3) Food Science Selective⁷~~
- _____ (6) Pest Management Selectives⁵
- _____ ~~(3 4) Physiology or Production Selective~~
- _____ (3) Soil Science Selective⁶
- _____ (6) Systems Modules Selectives⁷
- _____ (3) Humanities or Social Sciences Selective⁴
- _____ (3) Humanities or Social Sciences Selective⁴
- _____ (3) Humanities or Social Sciences Selective (30000+level)⁴
- _____ (3) UCC Human Cultures: Humanities Selective *(satisfies UCC Human Cultures: Humanities for-core)⁸*
- _____ (3) COM 11400 Fundamentals of Speech Communication or COM 21700 Science Writing and Presentation or EDPS 31500 Collaborative Leadership: Interpersonal Skills *(satisfies UCC Oral Communication for-core)*
- _____ (3) ENGL 10600 First-Year Composition or ENGL 10800 Accelerated First-Year Composition or HONR 19903 Interdisciplinary Approaches in Writing *(satisfies UCC Written Communication for-core, satisfies UCC Information Literacy Selective for-core)*

Electives (5-7 ~~21-22~~ credits)

_____ (5-7 ~~21-22~~) Electives

University Core Requirements (<http://www.purdue.edu/provost/students/s-initiatives/curriculum/coreCurriculum.html>)

Human Cultures Humanities	<input type="checkbox"/>	Science, Technology & Society Selective	<input type="checkbox"/>
Human Cultures Behavioral/Social Sciences	<input type="checkbox"/>	Written Communication	<input type="checkbox"/>
Information Literacy	<input type="checkbox"/>	Oral Communication	<input type="checkbox"/>
Science Selective	<input type="checkbox"/>	Quantitative Reasoning	<input type="checkbox"/>
Science Selective	<input type="checkbox"/>		

College of Agriculture & University Level Requirements (https://ag.purdue.edu/oap/Pages/core_requirements.aspx)

3 credits - Multicultural Awareness	<input type="checkbox"/>		<input type="checkbox"/>
9 credits - International Understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 credits - Humanities and/or Social Sciences outside the College of Agriculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 credits - Humanities and/or Social Sciences at 30000+level or higher	<input type="checkbox"/>		

*Select HORT 12100 as Systems Module Selective or a Humanities/Social Science Selective or Elective to meet UCC STS.

Suggested Arrangement of Courses

Credits	Fall 1 st Year	Prerequisite	Credits	Spring 1 st Year	Prerequisite
0.5	AGR 10100 Introduction to the College of Agriculture and Purdue University		3	AGRY 10500 Crop Production or HORT 10100 Fundamentals of Horticulture	
0.5	AGR 12000 Introduction to Horticulture and Landscape Architecture Academic Programs		4	BIOL 11000 Fundamentals of Biology or BTNY 11000 Introduction to Plant Sciences or BTNY 12000 Principles of Plant Biology I	
4	BIOL 11000 Fundamentals of Biology or BTNY 11000 Introduction to Plant Sciences or BTNY 12000 Principles of Plant Biology I		3	CHM 11200 General Chemistry	CHM 11100
3	CHM 11100 General Chemistry		3	SFS 21000 ^{cc} Small Farm Experience	
3	COM 11400 Fundamentals of Speech Communication or COM 21700 Science Writing and Presentation or EDPS 31500 Collaborative Leadership: Interpersonal Skills (UCC Oral Communication Selective)		3	ENGL 10600 First-Year Composition or ENGL 10800 Accelerated First-Year Composition or HONR 19903 Interdisciplinary Approaches in Writing (UCC Written Communication Selective, UCC Information Literacy Selective)	
3	MA 15800 Precalculus-Functions and Trigonometry				
14			16		

Credits	Fall 2 nd Year	Prerequisite	Credits	Spring 2 nd Year	Prerequisite
3	ANSC 10200 Introduction to Animal Sciences (UCC Science, Technology & Society) or ANSC 240 Principles of Animal Production (Does not count for UCC Science, Technology & Society)		3	AGEC 20300 Introductory Microeconomics or AGECEC 20400 Introduction to Resource Economics and Environmental Policy (UCC Human Cultures: Behavioral/Social Sciences)	
3	SFS 21100 ^{cc} Small Farm Experience		3	AGRY 25500 ^{cc} Soil Science or AGRY 27000 Forest Soils	CHM 11100
3	SFS 30100 Agroecology		3-4	BTNY 20700 The Microbial World or BIOL 22100 Introduction to Microbiology	
3	Systems Modules Selective ⁷		3	SFS 30200 Principles of Sustainability	
3	Agronomy/Horticulture Selective² Elective		3	Systems Modules Selective ⁷	
15			15-16		

Credits	Fall 3 rd Year	Prerequisite	Credits	Spring 3 rd Year	Prerequisite
3	Pest Management Selective ⁵		3	AGRY 32000 Genetics	BTNY 11000 and HORT 30100
3	Soil Science Selective ⁶		3	STAT 30100 Elementary Statistics Methods	
3	UCC Humanities Selective ⁸		3	Animal Science Selective³ Horticulture Selective ³	
3	SFS 48500 Environmental Communication (Meets Written or Oral Communication Selective 20000+ level English or Communication Selective)		3	Humanities or Social Sciences Selective ⁴	
3 4	Physiology or Production Selective^{3,3} Elective		3	Elective	
15			15		

Credits	Fall 4 th Year	Prerequisite	Credits	Spring 4 th Year	Prerequisite
4	Business Management Selective⁵ HORT 43500 Developing an Agricultural Startup		3	Ecology/Environment Selectives ²	
1	SFS 35100 SFS Capstone Project		3	Humanities or Social Sciences Selective ⁴	
3	Humanities or Social Sciences (30000+level) ⁴		2-4 7-8	Elective	
3	Economics Selective⁵ Pest Management Selective ⁵		3	Ecology/Environment Selectives⁵	
3 5	Elective		3	Food Science Selective²	
16			13-14		

- 1) 120 credits listed above are required for Bachelor of Science degree.
- 2) 2.0 graduation GPA required for Bachelor of Science degree.
- 3) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.
- 4) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I and IF).
- 5) ^{cc} = is considered a critical course.

See next page for all supplemental information.

The student is ultimately responsible for knowing and completing all degree requirements.
myPurdue Plan is a knowledge source for specific requirements and completion.

SFS Supplemental Information

All prerequisites must be met.

¹Employment of eight weeks (320 hours) in a sustainable food and farming systems enterprise is required any time before SFS 35100 (senior year).

²Ecology/Environment Selectives (6 3 credits)

AGRY 12500 Environmental Science and Conservation
AGRY 33500 Weather and Climate
AGRY 33700 Environmental Hydrology
AGRY 33800 Environmental Hydrology Lab
ASM ~~33600~~ 23600 Environmental Systems Management
BTNY 30200 Plant Ecology
EAPS 12500 Environmental Science and Conservation

EAPS 32000 Physics of Climate
ENTM 31100 Insect Ecology
FNR 21000 Natural Resource Information Management
FNR 37500 Human Dimensions of Natural Resource Management
FNR 54300 Conservation Biology I
~~NRES-29000 Introduction to Environmental Science~~ NRES 12500
Environmental Science and Conservation
POL 22300 Introduction to Environmental Policy

³Horticulture Selectives (3 credits)

HORT 20100 Plant Propagation
HORT 31800 Field Production of Horticultural Crops
HORT 31900 Controlled Environment Production of Horticultural Crops

⁴Humanities and Social Sciences Selectives (9 credits)

(9 credits of Humanities and/or Social Sciences must be taken outside the College of Agriculture)

See approved list at: https://ag.purdue.edu/oap/pages/core-social_humanities.aspx

⁵Pest Management Selectives (6 credits)

BTNY 30100 Introductory Plant Pathology
BTNY 30400 Introductory Weed Science
~~BTNY/ENTM 44600 Integrated Plant Health Management for Ornamental Plants~~
BTNY 51700 Diseases of Agronomic Crops
BTNY 53500 Plant Disease Management

ENTM 20600 General Entomology
ENTM 20700 General Entomology Lab
ENTM 41000 Applied Insect Biology
ENTM 41001 Insects of Urban Landscapes
ENTM 41002 Insects of Agricultural Crops
ENTM 51000 Insect Pest Management

⁶Soil Science Selectives (3 credits)

AGRY 34900 Soil Ecology
AGRY 36500 Soil Fertility
AGRY 45000 Soil Conservation and Water Management

AGRY 56500 Soils and Landscapes
AGRY 58000 Soil Microbiology

⁷Systems Modules (6 credits)

HORT 12100 Medicine in the Garden
SFS 31100 Aquaponics or HORT 31110 Aquaponics or FNR 31300
Aquaponics
SFS 31200 Urban Agriculture
SFS 31300 Farm-to-Fork
~~SFS 31400 Comparative Livestock Production Systems~~

SFS 31500 Principles of Permaculture
~~SFS 31600 Decisions through Systems Analysis~~
SFS 41100 Structural Racism in US Agriculture
SFS 41200 Colonialism, Globalization, and Food Justice
SFS 41300 The Cultures and Agricultures of the United States

⁸University Core Curriculum (UCC) Human Cultures: Humanities Selective (3 credits)

See approved Humanities list at: <http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>

(Some course subjects will also count toward the College of Agriculture humanities selectives requirement https://ag.purdue.edu/oap/pages/core-social_humanities.aspx.)

Program in Natural Resources and Environmental Science

Proposed Course and Curricular Changes
(College of Agriculture Undergraduate/Graduate)

A. COURSES TO BE ADDED

Prefix and Course Number: NRES 57200 (Cross list with HORT 57200)

Long Title: Stakeholder Involvement in Landscape Management

B. CURRICULAR CHANGES

None

Supporting Document

- A. Short Title:** Stakeholdr Involvmnt Land Mgmt
- B. Semester(s) Offered:** Fall
- C. Schedule Type (e.g. Lecture/Lab) and Hours:** LEC/110/1/16
- D. Credits:** 2.0
- E. Justification for the course:** Engaging the public in natural resource decision making is an increasingly important and complex task. Virtually every state and federal agency mandates some form of public involvement in decision making. Public participation involves any process that enables people to contribute to policies and plans. Increasingly participation is moving from a two-way sharing of information to a more collaborative structure where diverse stakeholders work together to reach mutually agreeable solutions.
- F. Expected Impact to other Programs:** This course does not duplicate other efforts on campus. It will enhance educational opportunities for students who want to learn more about engaging with the public and other stakeholders.
- G. Course Description for University Catalog:** Engaging the public in natural resource decision making is an increasingly important and complex task. This course provides an overview of how to include diverse stakeholders in decision making, collaboration, and conflict resolution through readings, class discussions, and role plays.
- H. Requisites (Pre-Reqs/Co-Reqs/concurrent pre-req):** None.
- I. Restrictions:** None.
- J. Learning Outcomes:** 1. Discuss the complexity of involving stakeholders in decisions about landscape management; 2. Understand the factors that make collaborative management successful and unsuccessful; 3. Use proven techniques for resolving conflicts; 4. Demonstrate knowledge of a variety of participatory and facilitation techniques.
- K. Applicable to College of Agriculture Core**
This course will will not be nominated for inclusion on College of Agriculture Core.
- L. Instructor Information:** Dr. Linda Prokopy Professor and Department Head Purdue University, lprokopy@purdue.edu
- M. Link to curriculog (if applicable):** Click here to enter text

**CoA Curriculum and Student Relations Committee
Approved Curricular Changes**

Part I. Update to Core Curriculum Lists (For Information Only)

The Agricultural Faculty authorized the Curriculum and Student Relations Committee to adjust the lists of courses that may fulfill core curriculum requirements in undergraduate plans of study and to report changes to the total faculty. The Curriculum and Student Relations Committee has approved the following additions to the core curriculum lists.

International Understanding

POL 42300 – International Environmental Policy

Multicultural Awareness

If the following courses are approved as new courses, they will be approved to be on the multicultural awareness list of courses.

SFS 41100 – Structural Racism in US Agriculture

SFS 41200 – Colonialism, Globalization, and Food Justice

SFS 41300 – Stakeholder Involvement in Landscape Management

For 2021 through approximately Spring 2024 EDCI 28500 will be taught in both 2 and 3 credit formats to accommodate current students and new students under revised plans of study. During this time both the existing 3 credit EDCI 28500 and proposed combination (2 credits EDCI 28500 + 1 credit EDCI 35000) can fulfill the Multicultural Awareness requirement. This change maintains the 3 credits requirement while accounting for the drop from 3 to 2 credits of a course already on the approved list.

Proposed Change to use of CHM 12901 towards fulfillment of CoA General Chemistry Requirement

Current:

- Passing CHM 12901 (5 credit course) is a direct substitute for CHM 11100 & CHM 11200, and will reduce CoA graduation requirement by 1 credit hour.
- Passing CHM 12901 plus the CHM 11500 test out (5 credits + 4 credits) will substitute for CHM 11500 and CHM 11600 (4 + 4 credits), with the one additional credit usable for Math/Science requirements or any free elective
- If a student starts with CHM 12901 and transfers to a new plan of study, they must still meet the requirements for their new Departmental home.
- If a student does not pass the CHM 11500 test out he/she will then need to complete that course or an equivalent to meet the plan of study requirements.

Proposed:

CHM 12901 will be used in CoA plans of study as follows:

- Passing CHM 12901 (5 credit course) is a direct substitute for the CoA General Chemistry requirement. If a student starts with CHM 12901 and transfers to a new plan of study, they must still meet the requirements for their new Departmental home. Departments requiring CHM 11500 may determine if CHM 12901 alone is sufficient to satisfy the general chemistry requirement.
- Passing CHM 12901 (5 credit course) is a direct substitute for CHM 11100 & CHM 11200, and will reduce CoA graduation requirement by 1 credit hour.
- If a student has credit for both CHM 11500 (4 credits) (AP, dual credit, transfer credit, etc.) and CHM 12901 (5 credits), this will substitute for CHM 11500 and CHM 11600 (4 + 4 credits), with the one additional credit usable for Math/Science requirements or any free elective.
- If a department requires CHM 11500 (**for departments not utilizing CHM 12901 alone for the CoA General Chemistry requirement**) and a student does not pass the CHM 11500 test out the student will then need to complete that course or an equivalent to meet the plan of study requirements.

Impact to other CoA programs: None expected. This change allows ANSC and BCHM students to select CHM 12901 as an alternative to CHM 11500 and CHM 11600, and is mostly used for students who CODO into the BCHM major from other programs such as BIOL that recommend CHM 12901. There is no impact on other departments in CoA because of clause #1 in the document allowing departments to determine which CHM courses meet the general chemistry requirement for CoA. Positive impact on CoA undergraduates in BCHM expected because there will not be a need to take the CHM 11500 test, which now has an associated fee. Advisors will communicate this policy with affected students and recommend appropriate CHM course selections. This advice will include appropriate guidance for pre-professional students (medical, veterinary, etc.).

Pass/No Pass Policy

Undergraduate Students enrolled in the College of Agriculture (CoA) may take courses under the Pass/Not-Pass (P/NP) option subject to the following regulations:

- A. A student must be classified as a sophomore or higher and have a minimum 2.0 graduation index.
- B. A student may elect the P/NP option for free elective* courses and selective⁺ courses only;
 - i. a department/academic unit can prohibit/limit the courses on departmental selective lists that are eligible to be taken P/NP for students in their department's plans of study.
 - ii. if a department requires a course that is only offered via the P/NP grade mode then the student may use that option for the course on the plan of study.
- C. A maximum of 18 credits of free elective*/selective⁺ courses under the P/NP grading option can be used toward graduation requirements.

- D. Courses that are required as part of a CoA minor cannot be taken using the P/NP option. Courses that are selectives in a minor may be taken P/NP, unless otherwise stipulated by the department granting the minor. No more than half the total credits required for a CoA minor can be taken P/NP.
- E. Standard registration procedures, such as the rules governing drop/add, withdrawal from courses, etc., will be followed. The deadlines for when the grade mode of a course can be modified can be found on the [drop/add/modify calendar](#).
- F. A student who, while enrolled in another school or college at Purdue University, passes a course under the P/NP option which is part of the CoA Core or a department/academic unit and subsequently switches/CODOs into a CoA program that requires that course, must seek college/departmental/academic unit approval (as appropriate**) to use the P/NP grade in the course to satisfy a program requirement.
- G. When a student repeats a course, P/NP cannot be used to replace a previous letter grade. If a student repeats a course in which they already received a P/NP, their grade mode will be P/NP by default. Students who need a letter grade in the repeated course must contact the registrar's office directly to seek an exception.
- H. Unusual circumstances may be appealed to the Senior Assistant Director and Head Academic Advisor in OAP.

⁺Selective course is defined as a course that is on a list of three or more courses, any one of which may be used to satisfy a requirement in a plan of study-

*Free electives are defined as any credits that are not required for your degree program except to meet the minimum credits required for graduation (e.g 120, 124, 128).

** College requirements need college-level approval; department/ unit requirements only require department/ unit-level approval.

Part II. Expiration of a course (For Information Only)

The Agricultural Faculty authorized the Curriculum and Student Relations Committee to approve expiration of courses and to report these to the total faculty. The Curriculum and Student Relations Committee has approved expiration of the following courses:

FNR 48800 – Practical Molecular Biology

Justification: the instructor for that course because the head of a different department and the course now duplicates other offerings across campus

Approved 11/09/2021

NRES 21000 –Natural Resource Information Management

Justification: This course is a cross-list with FNR 21000, which is the lead course. Although FNR used to prioritize access to this class for NRES students, due to increases in demand for this course within their own program, FNR is rarely able to accommodate students from other departments and programs. They have asked that NRES expire this cross-list.

Approved 11/09/2021

Expected Impact to other Programs: There has been a significant impact to the NRES program due to the lack of capacity in FNR 21000 for our students. Fortunately, we have been able to work with libraries, and encourage them to offer a new introductory GIS class, that will be offered for the first time in Spring 2022. This change should have a positive impact across the university, in increasing access to GIS education to all students.

Part III. Modifications of a course (For Information Only)

BCHM 42100 - R For Molecular Biosciences

Proposed Change: Adding CHE 32000 and BIOL 13100 as alternative pre-requisites to accommodate engineering and biology majors who take those courses instead of STAT 30100 and BIOL 11100, respectively. New pre-requisite should read: “(Undergraduate level STAT 30100 Minimum Grade of D-or Undergraduate level STAT 50100 Minimum Grade of D-or Undergraduate level STAT 50300 Minimum Grade of D-or Undergraduate level STAT 51100 Minimum Grade of D-or Undergraduate level CHE 32000 Minimum Grade of D-) and (Undergraduate level BIOL 11100 Minimum Grade of D-Undergraduate level BIOL 13100 Minimum Grade of D-or Undergraduate level BCHM 30700 Minimum Grade of D-)”

Justification: Adding CHE 32000 and BIOL 13100 as alternative pre-requisites to accommodate engineering and biology majors who take those courses instead of STAT 30100 and BIOL 11100, respectively. Increasing the number of possible pre-requisites for BCHM42100and BCHM42200is anticipated to have no negative impacts on programs utilizing these courses. Expanding the pre-requisites will only ease the ability of students in other programs to enroll in these BCHM courses by making use of coursework already in their curriculum.

Expected Impact to other Programs: BCHM 42100 and BCHM 42200 are not required in any other curriculum. A potential positive impact is an increase in enrollment in the bioinformatics minor.

Approved 11/09/2021

BCHM 42200 - Computational Genomics

Proposed Change: Adding BIOL 23000 as alternative pre-requisite to accommodate engineering majors who take that course instead of BIOL 23100. New pre-requisite should read: “Undergraduate level BIOL 23100 Minimum Grade of D-or Undergraduate level BIOL 23000 Minimum Grade of D-or Undergraduate level BCHM 30700 Minimum Grade of D-or Undergraduate level STAT 30100 Minimum Grade of D-or Undergraduate level STAT 50300 Minimum Grade of D-or Undergraduate level STAT 35000 Minimum Grade of D-or Undergraduate level STAT 51100 Minimum Grade of D-or Undergraduate level CS 18200 Minimum Grade of D-or Undergraduate level CS 24000 Minimum Grade of D-

Justification: Adding BIOL 23000 as alternative pre-requisite to accommodate engineering majors who take that course instead of BIOL 23100. Increasing the number of possible pre-requisites for BCHM42100and BCHM42200is anticipated to have no negative impacts on programs utilizing these courses. Expanding the pre-requisites will only ease the ability of students in other programs to enroll in these BCHM courses by making use of coursework already in their curriculum.

Expected Impact to other Programs: BCHM 42100and BCHM 42200 are not required in any other curriculum. A potential positive impact is an increase in enrollment in the bioinformatics minor.

Approved 11/09/2021

ENTM 31200 –Insect Chemical Ecology

Proposed Change: Title change to Plant-Insect Chemical Ecology

Justification: The changed title would be a better description of the content covered in the course.

Expected Impact to other Programs: No negative impacts. May help bring plant –herbivore interactions to a wider audience across the College.

Approved 11/09/2021

HORT 10100 - Fundamentals of Horticulture

Proposed Change: Remove the statement, “Requires class trips. Students will pay individual lodging or meal expenses when necessary,” from the course description.

Justification: Class trips are no longer a requirement.

Expected Impact to other Programs – None

Approved 11/09/2021

HORT 20100 - Plant Propagation

Proposed Change: Prerequisite: BTNY 11000 for level UG with minimum grade of D- or BTNY 12000 for level UG with minimum grade of D- or BTNY 21000 for level UG with minimum grade of D- or HORT 10100 for level UG with minimum grade of D- or HORT 10200 for level UG with minimum grade of D-

Justification: To accommodate students completing BTNY 12000.

Expected Impact to Other Programs - To help alleviate workflow overrides.

Approved 11/09/2021

HORT 30100 Plant Physiology

Proposed Change: Prerequisite ((BIOL 11000 for level UG with minimum grade of D- or BTNY 11000 for level UG with minimum grade of D- or BTNY 12000 for level UG with minimum grade of D- or BTNY 21000 for level UG with minimum grade of D-) or (BIOL 13100 for level UG with minimum grade of D-)) and (CHM 25500 for level UG with minimum grade of D- or CHM 25700 for level UG with minimum grade of D- or CHM 26200 for level UG with minimum grade of D- or CHEM C3410 for level UG with minimum grade of D- or CHEM C3420 for level UG with minimum grade of D-)

Justification: To accommodate students completing BTNY 12000.

Expected Impact to Other Programs - To help alleviate workflow overrides.

Approved 11/09/2021

HORT 31800 – Field Production of Horticultural Crops

Proposed Change: Prerequisite BIOL 11000 for level UG with minimum grade of D-or BTNY 11000 for level UG with minimum grade of D- or BTNY 12000 for level UG with minimum grade of D- or HORT 10100 for level UG W with minimum grade of D-

Justification: To accommodate students completing BTNY 12000.

*Expected Impact to Other Programs –*To help alleviate workflow overrides.

HORT 31900 – Controlled Environment Production of Horticultural Crops

Proposed Change: Prerequisite BIOL 11000 for level UG with minimum grade of D-or BTNY 11000 for level UG with minimum grade of D- or BTNY 12000 for level UG with minimum grade of D- or HORT 10100 for level UG with minimum grade of D-

Justification: To accommodate students completing BTNY 12000.

Expected Impact to Other Programs –To help alleviate workflow overrides.

Approved 11/09/2021

HORT 43500 – Developing an Agricultural Startup

Proposed Change: Prerequisite (AGEC 20300 for level UG W with minimum grade of D- or AGECE 20400 for level UG with minimum grade of D- or AGECE 21700 for level UG with minimum grade of D- or ECON 21000for level UG with minimum grade of D-

Justification: New instructor does not require AGECE 33000 or ENTR 20000 as a prerequisite. Adding AGECE 20400 and ECON 21000as another prerequisite option.

Expected Impact to other Programs – None

Approved 11/09/2021

LA22700 - Planting Design I

Proposed Change: Prerequisite LA 10600 for level UG with minimum grade of D- or LA 21600 for level UG with minimum grade of D- and HORT 21700 for level UG with minimum grade of D- (may be taken concurrently)

Justification: HORT 31500 no longer taught and HORT 21700 is now a prerequisite and not a co-requisite.

Expected Impact to other Programs–None

Approved 11/09/2021

LA 30900 - Co-op Preparation

Proposed Change: Prerequisite LA 22600 for level UG with minimum grade of D-and LA 34600 for level UG with minimum grade of D-

Justification: LA 34600 is part of the course sequence for co-op preparation.

Expected Impact to other Programs - None

Approved 11/09/2021

LA 32500 - Planting Design II

Proposed Change: Prerequisite LA 10600 for level UG with minimum grade of D- or LA 21600 for level UG with minimum grade of D- and LA 22700 for level UG with minimum grade of D- and HORT 21700 for level UG with minimum grade of D-

Justification: HORT 31500 is no longer offered replaced with LA 22700 is Planting Design I.

Expected Impact to other Programs - None

Approved 11/09/2021

LA 34600 - Site Systems

Proposed Change: Semester Offered. Change to Typically offered Spring.

Justification: LA 34600 moved to the fourth semester in the LA course sequence.

Expected Impact to other Programs - None

Approved 11/09/2021

LA 42600 - Capstone Course in Landscape Architecture

Proposed Change: Prerequisite LA 41600 for level UG with minimum grade of D- and LA 50100

Justification: LA 41600 and LA 50100 are both prerequisites for the capstone course.

Expected Impact to other Programs – None

Approved 11/09/2021

SFS 30100 - Agroecology

Proposed Change: Prerequisite BTNY 11000 for level UG with minimum grade of D- or BTNY 12000 for level UG with minimum grade of D-

Justification: BTNY 12000 is being added as a choice for the SFS Biological Sciences Selective. Adding BTNY 12000 will also alleviate workflow overrides for students who opted to take BTNY 12000.

Expected Impact to other Programs - None

Approved 11/09/2021

College of Agriculture
2021 December Graduation Candidate Roster
As of November 22, 2021

Subject to the approval of the Agricultural Faculty, the following graduation candidates who complete degree requirements during the current semester will be recommended to the Board of Trustees to receive their degrees as of December 18, 2021. Also the Dean of Agriculture, or her designee shall be authorized to act for the faculty regarding the certification of qualified candidates.

Name	Degree	Major	Conc 1	Minor 1	Minor 2
Ade, Kacie E.	BS	ASCI	PROD		
Altum, Lauren E.	BS	HOSC	HPMK	NREV	
Ayo, Adriana	BS	WLDL		NREV	
Becker, Austin J.	BS	AQSC	MAFB		
Berenda, Austin B.	BS	AGEC	QUAN	POL	
Binkley, Allison T.	BS	ASCI	PRDT		
Black, Micah L.	BS	ASCI	BISC		
Borhart, Abra N.	BS	HOSC	HPMK		
Brann, Mia A.	BS	PLSC		NREV	
Brent, Rachel I.	BS	WLDL			
Brinkman, Robert N.	BS	WLDL			
Brown, Danielle P.	BS	AGEC	APAE		
Buono, Nicholas S.	BS	WLDL			
Burchett, Kyle S.	BS	AGED			
Cambra, Alyssa F.	BS	AGBS	AGMG	COMU	FARM
Claycamp, Cassandra A.	BS	AGEC	APAE	POL	NREV
Cloud, Mary M.	BS	WLDL			
Dodson, Melinda R.	BS	ASCI	PROD	ANTR	
Drake, Loggan B.	BS	AGEC	CMRK	CRPS	FARM
Dugger, Abigail E.	BS	ASCI	BISC	BIOS	HIST
Eltzroth, McKenna S.	BS	SUAS	AMGT		
Emerich, Katarina L.	BS	AGBS	AGMR	ANSC	FARM
Epstein, Allison M.	BS	ASCI	BEHV		
Fager, Sarah A.	BS	ASCI	BEHV		
Farmer, Derek J.	CERT	IDSL			
Fazekas, Ashley J.	BS	WLDL			
Felger, Shannon N.	BS	NREV	LDRS	ENPP	
Flinders, Mckinley N.	BS	ASCI	PRDT	SOC	
Flor, Kathryn E.	BS	ASCI	PRMD	FRSC	BIOS
Fox, Ryan C.	BS	ASCI	ANAG	FDAG	
Franz, Laura J.	BS	SUAS	AMGT	PLBI	WDSC
Frix, Aubree C.	BS	INAG		PSY	

Name	Degree	Major	Conc 1	Minor 1	Minor 2
Gadberry, John A.	BS	AQSC	FISH		
Garcia, Shelby N.	BS	ASCI	ANAG		
George, Grace M.	BS	ASCI	BISC		
Goetz, Morgan E.	CERT	IDSL			
Gunapati, Neha	BS	NREV	WQTY	EEE	DDAG
Hahn, Samuel A.	BS	AGCM			
Hatfield, Annika R.	BS	ASCI	PRMD		
Heideman, Amanda S.	BS	NREV	ENPE	AQSC	
Henderson, Brandi E.	BS	AGED		CRPS	
Henderson, Lane M.	BS	AGBS	AGMG		
Herron, Collin S.	BS	ASCI	PRMD	BIOS	
Himes, Audrey M.	BS	ASCI	PROD	FDAG	
Hinshaw, William M.	BS	WLDL		FOEC	
Hoevener, Kalynda L.	BS	AGED			
Horvath, Courtney A.	BS	INAG		ASM	
Howe, Benjamin B.	BS	AGBS	CMRK	MILT	
Hulse, Daphne L.	BS	NREV	WQTY		
Jackson, Cassie R.	BS	ASCI	PROD	IBIO	
Johnson, Dylan M.	BS	AGBS	AGMG	FARM	
Jones, Christopher R.	BS	SHSC		NREV	
Jones, Danielle M.	BS	WLDL			
Jones, Makena C.	BS	ASCI	PROD		
Julio, Mateo	BS	AGBS	AGMG		
Kenyon, Madison N.	BS	FDSC		OLSV	FERM
Kerby, Alex R.	BS	ASM			
Kowalskyj, Lydia	BS	BCHM		NAVL	
Kresel, Tricia S.	BS	ASCI	PROD	FDAG	
Kroger, Carl A.	BS	ASCI	BISC		
Lahrman, Brooklynn K.	BS	AGBS	AGMG		
Li, Wenbo	BS	IBIO			
Lineback, Travis M.	BS	ASM			
Lovold, Samuel A.	BS	WLDL			
Mandel, Brett R.	BS	NREV	WQTY		
Mann, Adrianna R.	BS	ASCI	PRMD	OLSV	BIOS
Marshall, Krista D.	BS	WLDL			
McCoy, Grace V.	BS	AGCM			
McKee, Michael D.	BS	PLSC			
McKesson, Mitchell P.	BS	IBIO			
McNurlan, Jenna G.	BS	ASCI	BEHV	PSY	
Mehringner, Hannah R.	BS	AGED			
Michienzi, Julia A.	BS	NREV	WQTY	ENPP	
Miller, Stephanie K.	BS	INAG			
Muller, Selena M.	BS	ASCI	BISC		
Neff, Maraya A.	BS	WLDL			

Name	Degree	Major	Conc 1	Minor 1	Minor 2
Nemali, Ajay Kiran	BS	AGBS	AGMG		
Norton, Mikayla L.	BS	ASCI	ANAG	FDAG	
Nydegger, Karissa N.	BS	INAG		ANSC	
O'Brien, Alexis M.	BS	PLSC			
Oyler, Nicholas C.	BS	TMGT			
Palmore, Jaila M.	BS	ASCI	PRDT		
Patterson, Kayla E.	BS	AGED		HORT	
Pearson, Tucker J.	BS	AGBS	AGMG	CRPS	
Pettiner, Alyssa M.	BS	ASCI	PROD		
Pham, Audrey H.	BS	ASCI	PRMD		
Rambis, Savannah B.	BS	ASCI	PRMD	ANTR	
Reardon, Patrick J.	BS	NREV	EMEC		
Reed, Joseph D.	BS	NREV	LDRS		
Reid, Hannah R.	BS	ASCI	BISC		
Ripberger, Jacob T.	BS	FARM		CRPS	
Roberts, Josaphine J.	BS	ASCI	BISC		
Ronk, Mallory P.	BS	SUAS	AMGT		
Rose, Kylie	BS	AGBS	AGMG	HORT	
Rotich, Justin K.	BS	PGBB			
Ruiz, Angela J.	BS	ASCI	PRMD	BIOS	
Ryver, Brianna N.	BS	WLDL			
Schloemer, Claire M.	BS	SUAS	IAGR	SPNS	
Schwimmer, Alex E.	BS	INAG		WLFS	
Sherman, Regan E.	BS	ASCI	BISC	BIOS	
Shoop, Raymie L.	BS	AGCM			
Sierzputowski, Trevor J.	BS	ASCI	BISC		
Smith, Kathryn P.	BS	AGED		CRPS	
Smith, Steven D.	BS	SUAS	AMGT		
Speer, Heidi V.	BS	AGBS	AGMG	CRPS	
Staack, Baylee N.	BS	AGBS	AGMR		
Suris, Emma M.	BS	ASCI	PRMD	BIOS	
Swafford, Justin R.	BS	AQSC	MAFB		
Taylor, David J.	BS	AGEC	APAE	FARM	
Taylor, David J.	BS	ASM	DAIS	FDAG	
Taylor, Natalie C.	BS	AGCM		ARTS	
Thurman, Andrew J.	BS	SUAS	AMGT	FARM	
Travis, Carolyn L.	BS	HOSC	HPMK		
Trimble, Kathleen A.	BS	AGEC	APAE		
Turner, Ryleigh D.	BS	NREV	ENPE	FOEC	
Twobearsjr, Brady	BS	NREV	WQTY		
Uecker, Ashley N.	BS	ASCI	PROD		
Underwood, Lauren N.	BS	ASCI	PROD		
Wade, Brody A.	BS	NREV	LDRS		
Wagenbach, Joshua P.	BS	ASCI	ANAG		

Name	Degree	Major	Conc 1	Minor 1	Minor 2
Wagenbach, Joshua P.	BS	SLMK			
Wallace, Hannah I.	BS	ASCI	BISC		
Wennmacher, Drew E.	BS	PLSC			
Wennmacher, Drew E.	BS	IBIO			
White, Brenna N.	BS	ASCI	BISC		
White, Ceira J.	BS	AGED			
Willis, Emma R.	BS	ASCI	ANAG		
Winter, Breanna	BS	ASCI	BISC		
Witmer, Brock L.	BS	SUAS	AMGT		
Wittmer, Dalton W.	BS	SUAS	AMGT		
Wondercheck, Jalee N.	BS	AGCM		ANSC	
Yarde, Sherdextia D.	BS	SLMK			
Yergler, Alex M.	BS	SUAS	ABMK	FDAG	
Zhu, Xingyu	BS	PGBB			

Bachelor of Science in Agricultural Engineering

Deck, Grant M.	BSAGE	XEAG			
Filipovic, Julian A.	BSAGE	XEAG			
Fishburn, Kyle R.	BSAGE	XEAG			
Wei, Yaqiao	BSAGE	XEAG			

Bachelor of Science in Biological Engineering

Gopalrathnam, Anita	BSBE	BIEN	CBOE	SPRO	BTCH
Kitchell, Hailey M.	BSBE	BIEN	FBPE	SPNS	
Sanchez, Christina	BSBE	BIEN	CBOE	BTCH	
Schwarz, Kendall C.	BSBE	BIEN	CBOE	EEE	
Shao, Kunming	BSBE	BIEN	CBOE	BTCH	
Trigg, Lina C.	BSBE	BIEN	CBOE	BTCH	
Turner, Kess A.	BSBE	BIEN	CBOE	BTCH	
Wilson, Remington M.	BSBE	BIEN	CBOE		

Bachelor of Science in Forestry

Buono, Nicholas S.	BSFOR	FORS			
Gatto, Miranda N.	BSFOR	FORS		WLFS	
Marshall, Krista D.	BSFOR	FORS			
Scherzinger, Cole J.	BSFOR	FORS			