CALS Curriculum Committee Meeting
October 12, 2018
2:00 p.m.
1044 McCarty Hall D

Members: J. Brendemuhl, J.C. Bunch, D. Coenen, D. Farnsworth, D. Gabriel, P. Inglett, S. Johnson, B. Kolaczkowski, A. Mathews, G. Nunez, B. Pearson, W. Porter, C. Prince, K. Rose, D. Rowland, S. Sager (Chair), C. Stefanou, L. Warren, J. Weeks, A. Wysocki

Agenda and Index for Materials

Approve Minutes from September 14, 2018 meeting

Dr. Brendemuhl: Update from UCC

Selection of Chair-Elect

Graduate New Course Proposal

1. PLS 5XXX – Aquatic Plant Management (req. #13129)

Graduate Course Change Proposals

2. BSC 6459 – Fundamentals of Bioinformatics (req. #13038)

3. PLS 5652 – Advanced Weed Science (req. #13130)

Undergraduate New Course Proposal

4. HOS 3XXX – Viticulture for Table Grapes and Wine (req. #13128)

Recycled Items

5. HOS 3XXX – The Organic Debate: Organic Agriculture Development and Regulations (req. #12997)

Item previously submitted 9/14/2018 – Comments as follows: A motion was made by Dr. Kolaczkowski to recycle this item back to the department for required edits and resubmission. The motion was approved. The grading scale points need to be adjusted to avoid overlap. The committee suggested the submitter consider a possible name change to this course and making it a 2000 level two credit course. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

6. HOS 4XXXC – Principles of Postharvest Horticulture (req. #13001)

Item previously submitted 9/14/2018 – Comments as follows: A motion was made by Dr. Kolaczkowski to recycle this item back to the department for required changes and resubmission. The motion was approved. It needs to be clarified as to whether this course is joint course taught with HOS5085C – Principles of Postharvest Horticulture. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

7. MCB 6XXX – Synthetic Biology (req. #11709)

Item previously submitted 1/12/2018 & 4/13/2018 – Comments as follows: (Reviewed with item below- comments apply to both submissions unless otherwise stated) A motion was made by Dr. Kolaczkowski to recycle these items back to the department for required updates and resubmission. The motion was approved. A reading list needs to be included on the UCC form and Syllabus for the graduate submission. The three page difference required for the graduate research proposal versus the one for undergraduates is not a sufficient enough gap in rigor for the graduate students. The course objectives for the graduate course cannot mirror those of the undergraduate course. Some of them can be the same, but the others must reflect the differences expected for graduate students. Also, the syllabus must contain information showing the difference in rigor for the graduate students as opposed to the undergrads. It was suggested that you attach a separate document to the submission explaining these differences. This will help further along in the approval process and can be included in the syllabuses. There should be only one course number on each syllabus. The course description on the UCC form must match the description on the syllabus. The prerequisite requirement in each syllabus needs to match the one on the UCC form. Use only the courses required. Additional wording cannot be enforced by the prerequisite checker. Based on the information provided it is not clear if this course is synchronous or asynchronous. There needs to be more specific information in both syllabuses regarding the quizzes, discussions and homework assignments.

A motion was made by Dr. Johnson to recycle these items for required updates and resubmission. The motion was approved. The reading list for the graduate course needs to be included on the UCC1 form. The committee feels there are still not enough differences in rigor between the graduate and undergraduate courses. Normally the graduate course would have 15-20% of the student's assessments that are unique from the undergraduate student. This can be accomplished by having unique exam/quiz questions for graduate students, assignments that are unique to graduate students, etc. The objectives for the graduate student should also be somewhat different than those for the undergraduate student. The course number at the top of each syllabus should be MCB 6XXX and MCB 4XXX.

8. MCB 4XXX – Synthetic Biology (req. #11708)

Item previously submitted 1/12/2018, 4/13/2018 & 8/17/2018. For 1/12/18 and 4/13/2018 comments see item #7 above. 8/17/2018 comments as follows: A motion was made by Dr. Bunch to recycle this item back to the department for required changes and resubmission. The motion was approved. There is still not enough of a difference in rigor

between Graduate and Undergraduate students. The course objectives must be measurable (Understand and Consider cannot be measured). The Graduate version of this course has to be included with the resubmission of the Undergraduate version and all previous committee concerns must be addressed.

CALS Curriculum Committee Meeting
September 14, 2018
Submitted by James Fant (Provided by Wendell Porter)

Members Present: J. Brendemuhl, J.C. Bunch, D. Coenen, D. Gabriel, P. Inglett (Acting Chair), B. Kolaczkowski, G. Nunez, W. Porter, C. Prince, K. Rose, C. Stefanou, L. Warren

Substitutes: Rachel Mallinger for R. Baldwin
Chris Wilson for D. Rowland

Visitors: Rebecca Darnell, Christine Chase and Graciela Lorca

Call to Order: The College of Agricultural and Life Sciences Curriculum Committee met on September 14, 2018 in Rm. 1044 McCarty Hall D. Dr. Inglett called the meeting to order at 2:02 p.m.

Previous agenda items and supporting material can be found on the CALS Curriculum Committee homepage under document archives: http://cals.ufl.edu/faculty-staff/curriculum-committee.php

Approval of Minutes: A motion was made by Dr. Porter to approve the minutes from the August 17, 2018 meeting of the CALS CC. The motion was approved.

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

Websites: Grades – https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx
Syllabus Statements – http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf
Absences & Make-Ups – https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Update from UCC: Dr. Brendemuhl noted the following items were on the UCC agenda for September 18th: 1) Proposed new minor in Agricultural Curriculum and Development, 2) Proposed change to the Entomology/Nematology Basic Science specialization, 3) Proposed termination of the Entomology/Nematology Biosecurity specialization, 4) Proposed termination of the Entomology/Nematology Ecotourism specialization, and 5) Proposed new UG course FOS 3XXX-Life After Graduation. Dr. Brendemuhl indicated that the new Compass releases were affecting academic advisors and that much work is currently being done to correct degree audits in the new system and prepare for fall graduation as well as navigating the new Student-Initiated Drop/Add (SIDA). He also indicated that the new release for admissions had been done and admissions now occurs in SLATE. All semester plans for critical-tracking during semesters 6-8 were submitted on time and he has received the review from Associate Provost Lindner and he will be reviewing and getting back with departments for necessary edits. He once again reminded members concerning trainings associated with various rollouts of UF COMPASS and to stay abreast and take the trainings.

Graduate New Course Proposals

1. HOS 6XXX – Weed Management for Organic and Sustainable Cropping Systems (req. #12982) – Reviewed with item #11. All comments apply to both submissions unless otherwise stated. A motion was made by Dr. Kolaczkowski to approve these items with changes required. The motion was approved. The grading scale needs to be included on the UCC form. An external consult form from Agronomy needs to be included in each submission. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

2. MCB 6XXX – Probiotics (req. #12935)

Reviewed with item #12. All comments apply to both submissions unless otherwise stated. A motion was made by Dr. Kolaczkowski to approve this item with changes required. The motion was approved. The reading list needs to be included on the UCC forms. The graduate course description on the UCC form and in the syllabus needs to be changed to reflect graduate rather than upper division. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

3. SWS 6XXX – Landscape Hydrology (req. #12960)

A motion was made by Dr. Kolaczkowski to approve this item with changes required. The motion was approved. The course objectives need to be modified into measurable learning objectives. The proposed prerequisites need to be specific courses. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

Graduate Course Change Proposal

4. HUN 6321 – Proteins and Amino Acids in Nutrition (req. #12955)

A motion was made by Dr. Porter to approve this item with changes required. The motion was approved. Expand on the rationale for the proposed changes on the UCC form. Edit the text in the syllabus to continue describing the presentations. A reading list needs to be added to the syllabus. The "E" grade needs to have a decimal point added in the grading scale. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf. Also, in a separate letter, explain what material is being condensed or what topics are no longer covered due to the proposed change in credit hours.

Undergraduate New Course Proposals

5. HOS 3XXX – Genetics and Breeding of Fruit Crops (req. #12998)

A motion was made by Dr. Bunch to approve this item with a required change. The motion was approved. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

6. HOS 3XXX – Innovations in Organic Agriculture (req. #12997)

A motion was made by Dr. Kolaczkowski to recycle this item back to the department for required edits and resubmission. The motion was approved. The grading scale points need to be adjusted to avoid overlap. The committee suggested the submitter consider a possible name change to this course and making it a 2000 level two credit course. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

7. HOS 4XXXC – Principles of Postharvest Horticulture (req. #13001)

A motion was made by Dr. Kolaczkowski to recycle this item back to the department for required changes and resubmission. The motion was approved. It needs to be clarified as to whether this course is joint course taught with HOS5085C – Principles of Postharvest Horticulture. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

8. HOS 4XXX – Horticultural Sciences Capstone (req. #13002)

A motion was made by Dr. Kolaczkowski to approve this item with changes required. The motion was approved. Provide a more detailed explanation of rigor required for varying credit. Add in the rationale the placement of this course in the 4-course sequence. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

9. HOS 4XXX – Supervised Teaching Experience in Horticultural Sciences (req. #13000)

A motion was made by Dr. Porter to approve this item with changes required. The motion was approved. Add an explanation that 0-1 credit hours have the same base student expectations. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

10. HOS 4XXX – Capstone Planning in Horticultural Sciences (req. #12999)

A motion was made by Dr. Porter to approve this item with changes required. The motion was approved. Add in the rationale the placement of this course in the 4-course sequence. Include how the textbook will be incorporated into the class. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

11. HOS 4XXX – Organic Weed Management (req. #12981)

See item # 1.

12. MCB 4XXX – Probiotics (req. #12932)

See item #2

13. PLS 3XXXC – Hydroponic Systems (req. #12996)

A motion was made by Dr. Porter to approve this item with required changes. The motion was approved. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

Undergraduate Course Change Proposal

14. HOS 3020C – Principles of Horticultural Crop Production (req. #12995)

A motion was made by Dr. Bunch to approve this item with changes required. The motion was approved. Remove the mention of L code from description of request and rationale on UCC form. This submission requires an old and new version of the syllabus to reflect the differences. The updated version of the CALS boilerplate with syllabus statements and links needs to be added. This can be found at: http://cals.ufl.edu/faculty-staff/docs/policies/CALS%20Syllabus%20Policy%202017-18.pdf.

Certificates

15. Proposed change to the Wildlife Forensic Sciences and Conservation Graduate Certificate (req. #12959)

A motion was made by Dr. Porter to approve this item with changes. The motion was approved. It must be verified that the certificate has actually been transferred to Wildlife Ecology and Conservation from the College of Veterinary Medicine before any action can be taken by CALS. Must provide verification that the additional 6 credits will not change the Student Learning Outcomes and thus the Academic Assessment Plan.

16. Proposed termination of the Personal and Financial Planning Undergraduate Certificate (req. #12972)

A motion was made by Dr. Kolaczkowski to approve this item as submitted. The motion was approved.

The meeting was adjourned at 4:08 p.m.

Cover Sheet: Request 13129

PLS 5XXX

Info

Process	Course|New|Grad
Status	Pending at CALS - Agricultural and Life Sciences - General 514903000
Submitter	Gregory Macdonald pineacre@ufl.edu
Created	10/3/2018 6:13:53 AM
Updated	10/3/2018 6:18:03 AM
Description of request	Proposed new course - Aquatic Plant Management (PLS 5XXX) in the Agronomy department. This will support the weed science certificate program being developed by the department and the Center for Aquatic and Invasive Plants.

Actions

Step	Status	Group	User	Comment	Updated
Department	Pending	CALS - Agricultural and Life Sciences - General 514903000			10/3/2018
No document changes					
College					
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|New for request 13129

Info

Request: PLS 5XXX
Description of request: Proposed new course - Aquatic Plant Management (PLS 5XXX) in the Agronomy department. This will support the weed science certificate program being developed by the department and the Center for Aquatic and Invasive Plants.
Submitter: Gregory Macdonald pineacre@ufl.edu
Created: 10/3/2018 5:35:35 AM
Form version: 1

Responses

Recommended Prefix PLS
Course Level 5
Number XXX
Category of Instruction Introductory
Lab Code C
Course Title Aquatic Plant Management
Transcript Title Aquatic Plant Mgmt
Degree Type Graduate

Delivery Method(s) Online
Co-Listing No
Co-Listing Explanation this course will only be offered at the graduate level, therefore no differentiation of course work is necessary
Effective Term Earliest Available
Effective Year Earliest Available
Rotating Topic? Yes
Repeatable Credit? No

Amount of Credit 3

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 3
Course Description This course will provide students with a better understanding of aquatic plant management. Students will learn about aquatic ecosystems, focusing on the role and impacts of nuisance aquatic plants, and how to manage aquatic weeds.
Prerequisites Botany & Plant Physiology
Co-requisites none
Rationale and Placement in Curriculum The Agronomy Department is developing a weed science certificate program at the graduate level. As part of this effort it was decided at a recent teaching program retreat to proposed new course (PLS 5xxx) entitled Aquatic Plant Management, which is a graduate level course. This course will be foundational course for graduate students in the agronomy department that specialize in invasive plants.
Course Objectives 1) Describe aquatic ecosystems, water quality and plant growth
2) Understand basic biology and physiology of aquatic plant species, and explain what defines an aquatic nuisance species
3) Identify several common aquatic plant species (both native and exotic)
4) Develop an appropriate management plan for aquatic weeds

Course Textbook(s) and/or Other Assigned Reading no textbook required
required readings from Gettys, L.A., Haller, W.T., and Petty, D.G. 2014. Biology and Control of Aquatic Plants. A Best Management Practices Handbook (3rd ed.). Marietta, Georgia: Aquatic Ecosystem Restoration Foundation.
Weekly Schedule of Topics 1 Course Introduction, Definitions Aquatic Systems Discussion
2 Water Quality Measurements of Water Quality Discussion

3 Water Quality Measurements of Water Quality Lakewatch Assignment
4 Intro to Aquatic Plants NA Assessment #1
5 Emergent Species Plant Identification ID Quiz
6 Floating Species Plant Identification ID Quiz
7 Submersed Species Plant Identification ID Quiz
8 Invasion Theory, Impacts of Aquatic Weeds Case studies Assessment #2
9 History of Aquatic Weed Management, Prevention Strategies UF/IFAS Assessment of Non-native Plants in Florida's Natural Areas Discussion
10 Cultural Management Restoration of Native Species Discussion
11 Mechanical Management Aquatic Plant Harvesters Outline and List of References for Term Paper
12 Biological Control Biological Control Discussion
13 Chemical Management Application Technology Quiz
14 Chemical Management Application Technology Quiz
15 Chemical Management No lab Term Paper

Links and Policies Course Evaluation: Students are expected to provide feedback on the quality of instruction in this
course by completing online evaluations at https://evaluations.ufl.edu.
Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Student Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Academic Honesty: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Cell Phone, Laptop, etc. Policy:
Please restrict the use of these devices for classwork while in class unless taking notes. Taking pictures of slides is strictly forbidden and considered an infringement of copyright.

UF Counseling Services and Student Resources:
Health and Wellness
U Matter, We Care:
If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
Counseling and Wellness Center
http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575
University Police Department: 392-1111 or 9-1-1 for emergencies.
Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.
University Police Department
392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

Academic Resources:
E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.
http://www.crc.ufl.edu/

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
http://teachingcenter.ufl.edu/

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
http://writing.ufl.edu/writing-studio/

Student Complaints Campus:
https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

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

We, the members of the University of Florida, pledge to hold ourselves and peers to the highest standards of honesty and integrity.

Grading Scheme Point range (%)	Letter Grade	GPA Equivalent
93.0 – 100	A	4
90.0 – 92.9	A-	3.67
87.0 – 89.9	B+	3.33
83.0 – 86.9	B	3.00
80.0 – 82.9	B-	2.67
77.0 – 79.9	C+	2.33
73.0 – 76.9	C	2.00
70.0 – 72.9	C-	1.67
67.0 – 69.9	D+	1.33
63.0 – 66.9	D	1.00
60.0 – 62.9	D-	0.67
< 60	E	0.00

Instructor(s) Gregory E. MacDonald & to be determined

UF UNIVERSITY of FLORIDA

UCC: External Consultations

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
Center for Aquatic & Invasive Plants	Jason Ferrell - Professor and Director
Phone Number	**E-mail**
352-392-9613	jferrell@ufl.edu

Comments

The Center for Aquatic & Invasive Plants fully supports the new course entitled "Aquatic Plant Management". This course will be core component of the Weed Science certificate program that is currently under development through the Agronomy Department and the center. It is envisioned that this course and certificate program will provide educational opportunities to state and federal stakeholders that work closely with invasive plant management.

Department	Name and Title
Phone Number	**E-mail**

Comments

Department	Name and Title
Phone Number	**E-mail**

Comments

UF UNIVERSITY of FLORIDA

Institute of Food and Agricultural Sciences
Agronomy Department
P.O. Box 110500
3105 McCarty Hall
Gainesville, FL 32611-0500

Tel.: (352)392-1811
Fax.: (352)392-1840
ragilber@ufl.edu
http://agronomy.ifas.ufl.edu

August 16, 2018

CALS Curriculum Committee

Dear CALS Curriculum Committee,

The Agronomy Department is developing a weed science certificate program at the graduate level. As part of this effort it was decided at a recent teaching program retreat to modify two courses in our department. The first is a proposed new course (PLS 5xxx) entitled Aquatic Plant Management, which is a graduate level course, based on the existing undergraduate course – Aquatic Weed Control (PLS 4613c), previously taught be Dr. Haller. Since the course has more graduate than undergraduate participation in recent years and since the certificate is for graduate students, we propose a new course at the 5000 level. We intend to thus drop the undergraduate course listing.

The second course is a proposed name change of PLS 5652 (Advanced Weed Science) to Upland Invasive Plant Management. We believe that this name is more descriptive of the course content, especially as it will include more material to cover upland plant management, and will be more useful for the certificate program. Thus we feel a name change is warranted.

The Agronomy Department supports these proposed changes, and would like them to be considered by the CALS Curriculum Committee.

Sincerely,

Robert Gilbert

Dr. Robert Gilbert
Professor and Chair
Agronomy Department

The Foundation for The Gator Nation
An Equal Opportunity Institution

Aquatic Plant Management

PLS 5xxx

Agronomy Department - University of Florida

Spring Semesters

Instructors:

Greg MacDonald
Office - 2059 McCarty Hall-D
Email – pineacre@ufl.edu
Office phone – 352-294-1594
Cell – 352-262-8393

Class Schedule:

This is an online course, but **NOT** a go-at-your-own-pace course. Students are expected to watch the lectures and complete the accompanying assignments during their assigned week (see schedule below). Weekly assignments (quizzes, discussion posts, etc.) will be due by 11:55 PM on Sunday of each week.

Course Website:

Course material and communication will be provided through the Canvas site at http://lss.at.ufl.edu

Course Description:

This ***3 credit*** course will provide students with a better understanding of aquatic plant management. Students will learn about aquatic ecosystems, what makes a species an aquatic weed, and how to manage species using chemical, mechanical, cultural, biological, and preventative methods. This online course has a lecture and laboratory component. In the lab component of the course, students will learn methods of aquatic weed control, water quality measurements, and plant identification through video demonstrations and interviews.

Course Prerequisites:

Botany/Plant Physiology required, basic limnology background helpful

Course Objectives:

By the end of this course, students will be able to:

1) Describe aquatic ecosystems, water quality and plant growth
2) Understand basic biology and physiology of aquatic plant species, and explain what defines an aquatic nuisance species
3) Identify several common aquatic plant species (both native and exotic)
4) Develop an appropriate management plan for aquatic weeds

Office Hours:

By appointment – send an email to schedule a time. For those students located off-campus, phone or video conference will be arranged.

Class Participation:

Students are expected to participate in discussion boards with other students and the instructors/TA's. For every discussion assignment, students will be expected to respond to two other classmates.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Textbooks:

No textbook required but students will be provided with assigned readings from various sources including websites, journal articles, and reports. These will be centered on current topics and events to provide relevance to the course, and thus change each time the course is offered. Listed below are some useful textbooks that will be referenced throughout the course. These are not required, but provide helpful background information.

Cole, G.A. and Weihe, P.E. 2016. *Textbook of Limnology* (5th ed.). Long Grove, Illinois: Waveland Press, Inc.

Gettys, L.A., Haller, W.T., and Petty, D.G. 2014. *Biology and Control of Aquatic Plants. A Best Management Practices Handbook* (3rd ed.). Marietta, Georgia: Aquatic Ecosystem Restoration Foundation. ***This book is freely available** via the Aquatic Ecosystem Restoration Foundation website, and can be downloaded as a pdf and/or request a hardcopy here: http://www.aquatics.org/bmp.html

Mitsch, W.J., and Gosselink, J.G. 2007. *Wetlands* (4th ed.). Hoboken, New Jersey: John Wiley & Sons, Inc.

Assessments and Grading:

There will be three broad categories of graded assignments in this course:

1. **Weekly Assignments:** These assignments build on the content of that week's lectures and/or lab, and will primarily take the form of short-answer questions or class discussions. For the weeks where plant identification and calibration are discussed, assignments will take the form of multiple-choice quizzes. For some discussions or assignments, students may be required to visit a nearby waterbody and take a picture of something related to the course content that week.

2. **Exams:** There will be two mid-term exams (see weekly schedule below).

3. **Term Paper:** A term paper will be required where students will be given an aquatic weed scenario and are required to develop a management plan. More information on project requirements and grading will be provided through the course website on Canvas.

Assignment:	Percent of Grade:
Discussion Posts	10%
Weekly Assignments	15%
Assessment 1	25%
Assessment 2	25%
Term Paper	25%
Total:	**100%**

Course Grading Scale: For University of Florida grading policy see: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

The following grading scale will be used in this class.

Point range (%)	Letter Grade	GPA Equivalent
93.0 – 100	A	4
90.0 – 92.9	A-	3.67
87.0 – 89.9	B+	3.33
83.0 – 86.9	B	3
80.0 – 82.9	B-	2.67
77.0 – 79.9	C+	2.33
73.0 – 76.9	C	2
70.0 – 72.9	C-	1.67
67.0 – 69.9	D+	1.33
63.0 – 66.9	D	1
60.0 – 62.9	D-	0.67
< 60	E	0

Course Evaluation: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open.

Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Student Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Academic Honesty: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Cell Phone, Laptop, etc. Policy:

Please restrict the use of these devices for classwork while in class unless taking notes. Taking pictures of slides is strictly forbidden and considered an infringement of copyright.

UF Counseling Services and Student Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center

http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575

University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department

392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

Academic Resources:

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. http://www.crc.ufl.edu/

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Student Complaints Campus:
https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

Software Use:

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

We, the members of the University of Florida, pledge to hold ourselves and peers to the highest standards of honesty and integrity.

Class Outline:

Week:	Lecture:	Lab:	Assignment:
1	Course Introduction, Definitions	Aquatic Systems	Discussion
2	Water Quality	Measurements of Water Quality	Discussion
3	Water Quality	Measurements of Water Quality	Lakewatch Assignment
4	Intro to Aquatic Plants	NA	Assessment #1
5	Emergent Species	Plant Identification	ID Quiz
6	Floating Species	Plant Identification	ID Quiz
7	Submersed Species	Plant Identification	ID Quiz
8	Invasion Theory, Impacts of Aquatic Weeds	Case studies	Assessment #2
9	History of Aquatic Weed Management, Prevention Strategies	UF/IFAS Assessment of Non-native Plants in Florida's Natural Areas	Discussion
10	Cultural Management	Restoration of Native Species	Discussion
11	Mechanical Management	Aquatic Plant Harvesters	Outline and List of References for Term Paper
12	Biological Control	Biological Control	Discussion
13	Chemical Management	Application Technology	Quiz
14	Chemical Management	Application Technology	Quiz
15	Chemical Management	No lab	Term Paper

Cover Sheet: Request 13038

BSC 6459 Fundamentals of Bioinformatics

Info

Process	Course|Modify|Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Jonathan Orsini jorsini@ufl.edu
Created	9/12/2018 11:53:33 AM
Updated	9/12/2018 12:23:23 PM
Description of request	Request to change BSC6459 from 2 to 3 credits.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		9/12/2018
BSC6459_Syllabus_F2018.docx BSC6459_Syllabus_F2019.docx					9/12/2018 9/12/2018
College	Pending	CALS - College of Agricultural and Life Sciences			9/12/2018
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|Modify for request 13038

Info

Request: BSC 6459 Fundamentals of Bioinformatics
Description of request: Request to change BSC6459 from 2 to 3 credits.

Submitter: Jonathan Orsini jorsini@ufl.edu
Created: 2/2/2018 8:13:41 AM
Form version: 1

Responses

Current Prefix MCB
Course Level 6
Number 459
Lab Code None
Course Title Fundamentals of Bioinformatics
Effective Term Fall
Effective Year 2019
Requested Action Other (selecting this option opens additional form fields below)
Change Course Prefix? No

Change Course Level? No

Change Course Number? No

Change Lab Code? No

Change Course Title? No

Change Transcript Title? No

Change Credit Hours? Yes
Current Credit Hours 2
Proposed Credit Hours 3
Change Variable Credit? No

Change S/U Only? No

Change Contact Type? No

Change Rotating Topic Designation? No

Change Repeatable Credit? No

Maximum Repeatable Credits 3
Change Course Description? No

Change Prerequisites? No

Change Co-requisites? No

Rationale The BSC6459: Fundamentals of Bioinformatics class is aimed at graduate students in Biology/Chemistry focused program who have not had bioinformatic courses as undergraduates. This class was created in 2015 , so we now have some feedback from three years of teaching (currently in its fourth rendition). It requires the student to perform a lot of hand- on activities that are necessary to acquire the skills needed to use the bioinformatic toolbox presented in this class. Many students spend 20-30 hours per week on this class and complain that this should be a 3 credit class. We have therefore revised the syllabus to add a final project where the students will have another opportunity to apply the tools learned in the first 8 modules and request a change from 2 to 3 credits. The current 2 credit syllabus and the proposed 3 credit syllabus with highlighted changes are attached

BSC6459: Fundamentals of Bioinformatics, Sections 25H0, and 25H1-Fall 2018 (2 credits)

BSC6459 (Section **25H0, and 25H1**) is an introduction to the basic bioinformatics tools used in computational biology for life science research. The course will use web-based resources that analyze gene and protein sequences as pertinent data examples.

Student Learning Outcomes – After successful completion of this course, students will be able to:

1) Retrieve information on genes and proteins from biological and genomic databases.
2) Predict genes from DNA sequences.
3) Identify promoters and regulatory elements in DNA sequences
4) Analyze protein sequences
5) Compare protein and DNA sequences
6) Visualize and analyze protein structures
7) Construct and interpret simple phylogenies

Lectures/Computer Lab
Online semi-synchronous course: Each week there is a block of content available with specific due dates. Students may view and submit within that window, however, each module is structured to keep the group advancing together.

Instructor: Dr. Valérie de Crécy-Lagard

WebPage: Canvas course link
Contact Information:

- **Email (the most efficient):** Use the Canvas e-mail in priority. (If you do not have access to e-learning platform and if emergency, use vcrecy@ufl.edu)
- **Office hours:** online conferencing (times TBA)

Required Textbooks: "Essential bioinformatics" 2006, Authors: Jin Xiong Publisher: Cambridge University Press, ISBN -13:978-0-521-60082-8

Additional book of reference:

"Understanding Bioinformatics" 2008 by Marketa Zvelebil and Jeremy O. Baum Publisher: Garland Science, ISBN: 9780815340249

Evaluation of learning

- **Assignments**
  - Each lecture will have linked short assignments **(20%).** *These are short exercises that apply the material covered in class and encourage you to read the pre-class material for the following week.*
  - Group assignments and discussion (**20%**). *Weekly group assignments will be given. Examples include: 1) reading and discussing papers from the original literature on a subject related to bioinformatics or on a study that combines bioinformatics with experimental data; 2) Creating a tutorial; 3) Peer reviewing of an activity.*
  - Mini-projects **(10%).** *These are assignments where students apply learning points from several modules.*

- **Quizzes and Exams**
  - Quizzes **(20%)**
    Multiple choices or short answer quizzes will be given at the end of each module. The quizzes will be timed and can be taken within a specific window of time.
  - Final **(30%)**
    A comprehensive exam will be given in the format of application questions that require the correct use of the various bioinformatics tools covered in class as well as an understanding of the underlying biology.

- **Make-up policy.** Late assignments will be penalized by deducting 25% of the grade for each day late. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: **https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx**.
- **Grading:** Straight scale, follows the policies described here
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.asp

94.0-100%	A
90.0-93.9%	A-
87.0-89.9%	B+
84.0-86.9%	B
80.0-83.9 %	B-
77.0-79.9%	C+
74.0-76.9%	C
70.0-73.9%	C-
67.0-69.9%	D+
64.0-66.9%	D
60.0-63.9%	D-
<60%	E

The grading scale may be adjusted slightly, based on class performance

Course organization

Expect for Module 1, the module material of a given week will be made available the Friday of the week before. The assignments will be due on the Monday night of the week after. Due dates might be different for Mini Projects and group assignments. You have two weekends for every module but do not wait for the last week-end to start or you will struggle in the class.

Module 1 is a not on the same schedule as classes are starting mid-week this year, you will have less time so get started immediately and beware of the two deadlines (Friday August 24 (L0 material) and Monday August 27 (L1 and L2 material)

Lecture	Textbook	Title
Module 1 (week 1)		
L0		Getting started
L1	EB1	Bioinformatics: Definition and overview
L2	EB2	Biological database
Week 1 Group Activity		and Module Quiz
Module 2 (week 2)		
L3	EB3	Information retrieval from databases I
L4	EB3	Information retrieval from databases II
Week 2 Group Activity		and Module Quiz
Module 3 (week 3)		
L5	EB3-4	Pairwise alignment, an overview
L6	EB3-4	Pairwise alignment and database searching
Week 3 Group Activity and Module Quiz		
Module 4 (week 4)		
Mini project 1 due		
L7	EB5-7	Multiple Sequence Alignment; Remote Homology Detection
L8	EB5-7	Multiple Sequence Alignment; Remote Homology Detection
Week 4 Group Activity		and Module Quiz
Module 5 (weeks 5-6)		
Week 5		
L9	EB8&17	Genome browsers
L10	EB8	Predicting genes in prokaryotes
Week 5 Group activity		
Week 6		
L11	EB9	Identifying plant genes
L12	EB8-9	Promoter and Regulatory site prediction
Week 6 Group Activity and Module Quiz		
Module 6 (week 7)		
L13	EB8-9	Practical DNA analysis
L14	EB8-9	Protein analysis
Week 7 Module Quiz		
Module 7 (week 8)		
Mini project 2 due		
L15	EB10-11	Phylogeny Basics
L16	EB10-11	Phylogeny Basics
Week 9 Module Quiz		
Module 8 (week 9)		
Miniproject 3 due		
L17	EB12-13	Visualizing and comparing Protein structures

Module 9 At Home Final Exam (week 10)

EB= Essential Bioinformatics

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.

Academic Honesty

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It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code.

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Services for Students with Disabilities

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Campus Helping Resources

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University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, **www.counseling.ufl.edu**

- Counseling Services
- Groups and Workshops
- Outreach and Consultation
- Self-Help Library
- Wellness Coaching

U Matter We Care, **www.umatter.ufl.edu/**

Career Connections Center, First Floor JWRU, 392-1601, https://career.ufl.edu/.

Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/.

Online Course: http://www.distance.ufl.edu/student-complaint-process

BSC6459: Fundamentals of Bioinformatics, Sections 25H0, and 25H1-Fall 2019 (3 credits)

BSC6459 (Section **25H0, and 25H1**) is an introduction to the basic bioinformatics tools used in computational biology for life science research. The course will use web-based resources that analyze gene and protein sequences as pertinent data examples.

Student Learning Outcomes – After successful completion of this course, students will be able to:

1) Retrieve information on genes and proteins from biological and genomic databases.
2) Predict genes from DNA sequences.
3) Identify promoters and regulatory elements in DNA sequences
4) Analyze protein sequences
5) Compare protein and DNA sequences
6) Visualize and analyze protein structures
7) Construct and interpret simple phylogenies

Lectures/Computer Lab
This is an online **semi-synchronous** course. Each module is structured to keep the group advancing together. A block of content available is made available during a 10-day period with specific due dates **every week**. Students may view and submit within that 1- day window, however no allowance will be made for late submission particularly of the end of module quizzes. Poor internet access or traveling are no excuse for late submissions, students must plan ahead to meet the deadlines when taking this class.

Instructor: Dr. Valérie de Crécy-Lagard

WebPage: Canvas course link
Contact Information:

- **Email (the most efficient):** Use the Canvas e-mail in priority. (If you do not have access to e-learning platform and if emergency, use vcrecy@ufl.edu)
- **Office hours:** online conferencing (times TBA)

Required Textbooks: "Essential bioinformatics" 2006, Authors: Jin Xiong Publisher: Cambridge University Press, ISBN -13:978-0-521-60082-8

Additional book of reference:

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Evaluation of learning

- **Assignments**
  - Each lecture will have linked short assignments **(20%).** *These are short exercises that apply the material covered in class and encourage you to read the pre-class material for the following week.*
  - Group assignments and discussion (**20%).** *Weekly group assignments will be given. Examples include: 1) reading and discussing papers from the original literature on a subject related to bioinformatics or on a study that combines bioinformatics with experimental data; 2) Creating a tutorial; 3) Peer reviewing of an activity.*
  - Mini-projects **(10%).** *These are assignments where students apply learning points from several modules.*
  - Final Project (**20%**) *Project on bioinformatic analysis of a protein superfamily: the Nudix Hydrolases of Escherichia coli. Individual, Group and Peer Reviewed assignments over the last five weeks of class that will*

allow the students all the tools learned in class (literature searches, multiple alignments, phylogenetic tree, structural analysis and regulatory site analysis) on specific examples.

- **Quizzes and Exams**
  - Quizzes **(15%)**
    Multiple choices or short answer quizzes will be given at the end of each module. The quizzes will be timed and can be taken within a specific window of time.
  - Final **(15%)**
    A comprehensive exam will be given in the format of application questions that require the correct use of the various bioinformatics tools covered in class as well as an understanding of the underlying biology.

- **Make-up policy.** Late assignments will be penalized by deducting 25% of the grade for each day late. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: **https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx**.
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94.0-100%	A
90.0-93.9%	A-
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84.0-86.9%	B
80.0-83.9 %	B-
77.0-79.9%	C+
74.0-76.9%	C
70.0-73.9%	C-
67.0-69.9%	D+
64.0-66.9%	D
60.0-63.9%	D-
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The grading scale may be adjusted slightly, based on class performance

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L15	EB10-11	Phylogeny Basics
L16	EB10-11	Phylogeny Basics
Week 9 Module Quiz		
Module 8 (week 9)		
Miniproject 3 due		
L17	EB12-13	Visualizing and comparing Protein structures
L18	EB12-14	Visualizing and comparing Protein structures
Week 10 Group Activity and Module Quiz		
Module 9 At Home Final Exam (week 10)		
Module 10 Final Project (week 11-15)		

EB= Essential Bioinformatics

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0001 Reid Hall, 352-392-8565, **www.dso.ufl.edu/drc/**

Campus Helping Resources

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University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, **www.counseling.ufl.edu**

- Counseling Services
- Groups and Workshops
- Outreach and Consultation
- Self-Help Library
- Wellness Coaching

U Matter We Care, **www.umatter.ufl.edu/**

Career Connections Center, First Floor JWRU, 392-1601, https://career.ufl.edu/.

Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/.

Online Course: http://www.distance.ufl.edu/student-complaint-process

Cover Sheet: Request 13130

proposed course title change - PLS 5652 Advanced Weed Science to PLS 5652 Upland Invasive Plant Management

Info

Process	Course|Modify|Grad
Status	Pending at CALS - Agricultural and Life Sciences - General 514903000
Submitter	Gregory Macdonald pineacre@ufl.edu
Created	10/3/2018 6:31:32 AM
Updated	10/3/2018 6:32:47 AM
Description of request	The Agronomy Department is developing a weed science certificate program at the graduate level. As part of this effort it was decided at a recent teaching program retreat to propose a name change of PLS 5652 (Advanced Weed Science) to Upland Invasive Plant Management. We believe that this name is more descriptive of the course content, especially as it will include more material to cover upland plant management, and will be more useful for the certificate program. Thus we feel a name change is warranted.

Actions

Step	Status	Group	User	Comment	Updated
Department	Pending	CALS - Agricultural and Life Sciences - General 514903000			10/3/2018
No document changes					
College					
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|Modify for request 13130

Info

Request: proposed course title change - PLS 5652 Advanced Weed Science to PLS 5652 Upland Invasive Plant Management
Description of request: The Agronomy Department is developing a weed science certificate program at the graduate level. As part of this effort it was decided at a recent teaching program retreat to propose a name change of PLS 5652 (Advanced Weed Science) to Upland Invasive Plant Management. We believe that this name is more descriptive of the course content, especially as it will include more material to cover upland plant management, and will be more useful for the certificate program. Thus we feel a name change is warranted.

Submitter: Gregory Macdonald pineacre@ufl.edu
Created: 10/3/2018 6:18:15 AM
Form version: 1

Responses

Current Prefix PLS
Course Level 5
Number 652
Lab Code None
Course Title Advanced Weed Science
Effective Term Earliest Available
Effective Year Earliest Available
Requested Action Other (selecting this option opens additional form fields below)
Change Course Prefix? No

Change Course Level? No

Change Course Number? No

Change Lab Code? No

Change Course Title? Yes
Current Course Title Advanced Weed Science
Proposed Course Title Upland Invasive Plant Management
Change Transcript Title? Yes
Current Transcript Title Advanced Weed Science
Proposed Transcript Title (21 char. max) Upland Plant Mgmt
Change Credit Hours? No

Change Variable Credit? No

Change S/U Only? No

Change Contact Type? No

Change Rotating Topic Designation? No

Change Repeatable Credit? No

Maximum Repeatable Credits 0
Change Course Description? Yes
Current Course Description Lecture topics will focus on the development and implementation for weed and vegetation management programs for agronomic and horticultural cropping systems, forestry, aquatic, non-cropland and natural settings. The interaction between crops, weeds and other pesticides, and environmental concerns and considerations will be discussed as they relate to weed management strategies.
Proposed Course Description (50 words max) This course will provide students with a better understanding of upland invasive plant management. Students will learn about upland plant ecosystems, focusing on the role and impacts of nuisance and exotic plants, and how to manage nuisance and invasive plants.
Change Prerequisites? Yes
Current Prerequisites PLS 4601c or PLS 5632 or equivalent
AGR 3005 or equivalent

Proposed Prerequisites Botany & Plant Physiology
Change Co-requisites? No

Rationale The proposed name change of PLS 5652 (Advanced Weed Science) to Upland Invasive Plant Management is more descriptive of the modified course content, especially as it will include more material to cover upland plant management. This course will be a component of the weed science certificate program and also support graduate curricula in invasive plant management.

UF UNIVERSITY of FLORIDA

UCC: External Consultations

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
Center for Aquatic & Invasive Plants	Jason Ferrell - Professor and Director
Phone Number	**E-mail**
352-392-9613	jferrell@ufl.edu

Comments

The Center for Aquatic & Invasive Plants fully supports this course name and content change to Upland Invasive Plant Management. This course will be core component of the Weed Science certificate program that is currently under development through the Agronomy Department and the center. It is envisioned that this course and certificate program will provide educational opportunities to state and federal stakeholders that work closely with invasive plant management.

Department	Name and Title
Phone Number	**E-mail**

Comments

Department	Name and Title
Phone Number	**E-mail**

Comments

UF UNIVERSITY of FLORIDA

Institute of Food and Agricultural Sciences
Agronomy Department
P.O. Box 110500
3105 McCarty Hall
Gainesville, FL 32611-0500

Tel.: (352)392-1811
Fax.: (352)392-1840
ragilber@ufl.edu
http://agronomy.ifas.ufl.edu

August 16, 2018

CALS Curriculum Committee

Dear CALS Curriculum Committee.

The Agronomy Department is developing a weed science certificate program at the graduate level. As part of this effort it was decided at a recent teaching program retreat to modify two courses in our department. The first is a proposed new course (PLS 5xxx) entitled Aquatic Plant Management, which is a graduate level course, based on the existing undergraduate course – Aquatic Weed Control (PLS 4613c), previously taught be Dr. Haller. Since the course has more graduate than undergraduate participation in recent years and since the certificate is for graduate students, we propose a new course at the 5000 level. We intend to thus drop the undergraduate course listing.

The second course is a proposed name change of PLS 5652 (Advanced Weed Science) to Upland Invasive Plant Management. We believe that this name is more descriptive of the course content, especially as it will include more material to cover upland plant management, and will be more useful for the certificate program. Thus we feel a name change is warranted.

The Agronomy Department supports these proposed changes, and would like them to be considered by the CALS Curriculum Committee.

Sincerely,

Robert Gilbert

Dr. Robert Gilbert
Professor and Chair
Agronomy Department

The Foundation for The Gator Nation
An Equal Opportunity Institution

Upland Invasive Plant Management

PLS 5652

Agronomy Department - University of Florida

Spring Semesters

Instructors:

Greg MacDonald
Office - 2059 McCarty Hall-D
Email – [redacted]
Office phone – 352-294-1594
Cell – 352-262-8393

Class Schedule:

This is an online course, but **NOT** a go-at-your-own-pace course. Students are expected to watch the lectures and complete the accompanying assignments during their assigned week. Weekly assignments (quizzes, discussion posts, etc.) will be due by 11:55 PM on Sunday of each week.

Course Website:

Course material and communication will be provided through the Canvas site at [redacted]

Course Description:

This ***3 credit*** course will provide students with a better understanding of invasive plant management in upland environments. Students will learn about upland ecosystems, the biology and ecology of invasive plant species, and how to manage invasive species using chemical, mechanical, cultural, biological, and preventative methods. This online course has a lecture and lab component. In the lab component of the course, students will learn methods of invasive plant control and plant identification through video demonstrations and interviews.

Course Prerequisites:

Botany/Plant Physiology required, introductory ecology helpful

Course Objectives:

By the end of this course, students will be able to:

1) Explain what differentiates an invasive plant from other species
2) Describe the impact of invasive species on various upland habitats
3) Identify several common invasive species and similar native species
4) Develop an appropriate management plan for invasive species

Office Hours:

By appointment – send an email to schedule a time. For those students located off-campus, phone or video conference will be arranged.

Class Participation:

Students are expected to participate in discussion boards with other students and the instructors/TA's. For every discussion assignment, students will be expected to respond to two other classmates.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Textbooks:

No textbook required but students will be provided with assigned readings from various sources including websites, journal articles, and reports. These will be centered on current topics and events to provide relevance to the course, and thus change each time the course is offered. Listed below are some useful textbooks that will be referenced throughout the course. These are not required, but provide helpful background information.

Assessments and Grading:

There will be three broad categories of graded assignments in this course:

1. **Weekly Assignments:** These assignments build on the content of that week's lectures and/or lab, and will primarily take the form of short-answer questions or class discussions. For the weeks where plant identification and calibration are discussed, assignments will take the form of multiple-choice quizzes.

2. **Exams:** There will be two mid-term exams.

3. **Term Paper:** A term paper will be required where students will be given an upland invasive plant scenario and are required to develop a management plan. More information on project requirements and grading will be provided through the course website on Canvas.

Assignment:	Percent of Grade:
Discussion Posts	10%
Weekly Assignments	15%
Assessment 1	25%
Assessment 2	25%
Term Paper	25%
Total:	100%

Course Grading Scale: For University of Florida grading policy see: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

The following grading scale will be used in this class.

Point range (%)	Letter Grade	GPA Equivalent
93.0 – 100	A	4
90.0 – 92.9	A-	3.67
87.0 – 89.9	B+	3.33
83.0 – 86.9	B	3
80.0 – 82.9	B-	2.67
77.0 – 79.9	C+	2.33
73.0 – 76.9	C	2
70.0 – 72.9	C-	1.67
67.0 – 69.9	D+	1.33
63.0 – 66.9	D	1
60.0 – 62.9	D-	0.67
< 60	E	0

Course Evaluation: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Student Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by

providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Academic Honesty: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Cell Phone, Laptop, etc. Policy:

Please restrict the use of these devices for classwork while in class unless taking notes. Taking pictures of slides is strictly forbidden and considered an infringement of copyright.

UF Counseling Services and Student Resources:

Health and Wellness

U Matter, We Care:
If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center

http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575
University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department

392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

Academic Resources:

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. http://www.crc.ufl.edu/

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Student Complaints Campus:
https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

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

We, the members of the University of Florida, pledge to hold ourselves and peers to the highest standards of honesty and integrity.

Class Outline:

Week:	Lecture:	Practical Applications:	Assignment:
1	Introduction to Course	Readings on Invasive Impacts	Discussion
2	Brief Overview of Invasion theory by plants	Sources of Introduction	Discussion
3	Invasive Characteristics and Competition	Mechanisms of Competition/Spread	Competition Assignment
4	Invasive Biology - Phenology	Introduction to Invasive Plant ID and Sources	Discussion of Online Sources
5	Invasive Biology – Propagule Physiology	Annuals and Short-lived Perennials	Plant Identification Quiz
6	Invasive Plants and Impacts- Xeric Ecosystems	Perennial Rhizomatous Graminoids	Test 1 Weeks 1-5 Lecture Material
7	Invasive Plants and Impacts- Mesic Ecosystems	Ferns and Vines	Plant Identification Quiz
8	Invasive Plants and Impacts- Hydric Ecosystems	Shrubs and Trees	Plant Identification Quiz
9	Invasive Plants and Impacts Anthropogenic Ecosystems	none	Test 2 Weeks 6-9 Lecture Material
10	Overview of Management Prevention and Biological Management Strategies	Management Philosophies and Strategies	Discussion
11	Mechanical and Fire Methodologies for Invasive Plant Management	Mechanical Equipment and Fire	Fire Management Plan
12	Cultural/Restorative Management	Active Restoration Technologies	Restoration Plan
13	Chemical Management – Labels, Regulations and More	Calibration and Equipment	Calibration Quiz
14	Chemical Management - Herbicides, Mode of Action, Selectivity	Application Techniques	Test 3 Weeks 10-14 Lecture Material
15	Integrated Management Approaches	Case Studies - Theoretical vs. Practical	Discussion

Cover Sheet: Request 13128

HOS 3XXX - Viticulture for Table Grapes and Wine

Info

Process	Course|New|Ugrad/Pro
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Gerardo Nunez Villegas g.nunez@ufl.edu
Created	10/2/2018 9:39:09 PM
Updated	10/3/2018 4:11:17 PM
Description of request	We request to create a new course titled HOS 3XXX - Viticulture for Table Grapes and Wine

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		10/3/2018
Syllabus HOS 3XXX - Viticulture.pdf					10/3/2018
College	Pending	CALS - College of Agricultural and Life Sciences			10/3/2018
No document changes					
University Curriculum Committee					
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Course|New for request 13128

Info

Request: HOS 3XXX - Viticulture for Table Grapes and Wine
Description of request: We request to create a new course titled HOS 3XXX - Viticulture for Table Grapes and Wine
Submitter: Gerardo Nunez Villegas g.nunez@ufl.edu
Created: 10/3/2018 10:00:51 AM
Form version: 2

Responses

Recommended Prefix HOS
Course Level 3
Number XXX
Category of Instruction Intermediate
Lab Code None
Course Title Viticulture for Table Grapes and Wine
Transcript Title Viticulture
Degree Type Baccalaureate

Delivery Method(s) On-Campus
Co-Listing No
Co-Listing Explanation N/A
Effective Term Earliest Available
Effective Year Earliest Available
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 2

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 2
Course Description This course aims to teach students current practices for establishing a vineyard and maintaining its health and productivity into the final quality of the grape. Topics covered include grape varietal selection, site selection and preparation, vine growth, training and trellis systems, and equipment used in vineyard and wine production.
Prerequisites BSC2005 or BOT2010C or BOT2011C
Co-requisites None
Rationale and Placement in Curriculum Viticulture is an important niche in horticulture that is currently underserved at UF. Ali Sarkhosh is a recently hired viticulturist at the Horticultural Sciences department who will be teaching this new course. Currently, there are no courses on this area at UF. The course will be an elective for students in all specializations in the Horticultural Sciences curriculum. The course will also likely be attractive to students in other disciplines.
Course Objectives Upon successful completion of this course, students will be able to:
- Discuss the cultural practices used in vineyard.
- Explain the importance of grape quality in the final quality of the wine
- Discuss grape varieties and their characteristics used in the production of wine as well as about the technology used in grape and wine production
- Explain vineyard problems (e.g., diseases, pests, poor canopy, nutrition and soil/water issues) that could impact final grape and wine quality/flavors.
- Relay information about the basic steps and equipment involved in wine making.

Course Textbook(s) and/or Other Assigned Reading None required. Recommended textbooks:
- Wine Grape Production Guide for Eastern North America, T.K. Wolf (ed.), Natural Resource, Agriculture, and Engineering Service (NRAES), 2008. ISBN-10: 1933395125.
- Johnson, H. and Robinson, J. 2013. The World Atlas of Wine 7th Edition. Mitchell Beasley,

London, UK ISBN: 1-84000-332-4.

Weekly Schedule of Topics Week 1. History, origin of commercial grape varieties and botany of the grape
Week 2. Overview of wine regions, and climate and environment
Week 3. Biology of the grapevine vegetative and reproductive growths
Week 4. Site selection and vineyard establishment
Week 5. Vine training, trellising and canopy management
Week 6. Vineyard production cycle, irrigation and nutrition management
Week 7. Weed, disease and insect management
Week 8. Mid semester summary, review, and exam
Week 9. Yield, fruit quality, harvest parameters
Week 10. Raw materials (grapes, adjuncts, yeast)
Week 11. Vineyard and winery equipment and facilities
Week 12. Fermentation processing; pre- and post-fermentation
Week 13. Science of winemaking: Red wine vs White
Week 14. The ultimate product; wine aging, sensory evaluation; other products; raisins, table grapes and juice
Week 15. Wine marketing and regulations, and vineyard/winery and agritourism
Links and Policies COURSE POLICIES
Additional information on current UF grading policies for assigning grade points can be found here:
- Grading policy, https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Attendance and Make-up Policy
Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
- UF Attendance policy, https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Technical Difficulties
If you are experiencing technical difficulties with Canvas, you should immediately contact the UF Help Desk. This will generate a ticket number, which documents the date and time of your technical difficulty. Any requests to make-up late work due to technical difficulties must be accompanied by this ticket number.
- UF Help Desk, HUB 132, (352) - 392 - 4357, www.lss.at.ufl.edu/help.shtml

Academic Honesty
As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.
- For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code

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

Services for Students with Disabilities
Students with disabilities requesting accommodations should first register with the Disability Resource

Center by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester

- Disability Resource Center, 0001 Reid Hall, (352) 392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

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

- Counseling and Wellness Center, 3190 Radio Road, 392-1575, www.counseling.ufl.edu

Counseling Services

Groups and Workshops

Outreach and Consultation

Self-Help Library

Wellness Coaching

- U Matter We Care, www.umatter.ufl.edu

Additionally, if you would like orientation on choosing a major, finding an internship, or planning your career, I encourage you to use the university's on-campus resources.

- Career Resource Center, CR-100 Reitz Union, 392-1601, https://career.ufl.edu/

Course Evaluation Process

Student assessment of instruction is an important part of the effort to improve teaching and learning. At the end of the semester, you are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at:

- Course evaluations, www.evaluations.ufl.edu

Evaluations are typically open during the last two or three weeks of the semester. You will be notified of the specific times when evaluations for this course are open. Summary results of these assessments are available to students at:

- Evaluations summary, www.evaluations.ufl.edu/results

Student Complaints

You can file and resolve any complaints about your experience in this course in the following site:

- Student complaints in residential courses, https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

Grading Scheme 1. Midterm exam (50 points)

Mid-semester exam will take place during scheduled class periods. Exam includes true/false, multiple choice, ordering, and short answer question. Exam will take 50 minutes.

2. Final exam (50 points)

Final exam will take place during week 16 (finals week). This cumulative exam will include true/false, multiple choice, ordering, and short answer questions. Exam will take 50 minutes.

Points earned in both assignments will be summed to calculate student final grade out of 100 points. Letter grades will be based on the performance of each student relative to the following standard percentages (%):

GRADING SCALE

A

=

95 - 100 points

A-

= < 95 - 90 points

B+

= < 90 - 87 points

B

= < 87 - 83 points
B-

= < 83 - 80 points
C+

= < 80 - 77 points
C

= < 77 - 73 points
C-

= < 73 - 70 points
D+

= < 70 - 67 points
D

= < 67 - 63 points
D-

= < 63 - 60 points
E

= <60 points
Instructor(s) Ali Sarkhosh

HORTSCI

Fruits and vegetables for Florida and beyond

HOS3XXX – VITICULTURE FOR TABLE GRAPES & WINE

2 CREDITS

MEETING TIMES AND LOCATION

Tuesdays and Thusdays, 5th period

Fifield Hall room 2316 and Horticultural Sciences Teaching Garden

INSTRUCTOR

Dr. Ali Sarkhosh, Horticultural Sciences Department, 2115 Fifield Hall, +1 (352)-273-4788, sarkhosha@ufl.edu

Office hours Mondays 3:00PM- 5:00PM

Guest lectures: Dr. Andrew McIntosh (UF Food Science and Human Nutrition) and Dr. Oscar Liburd (UF Entomology)

PRE-REQUISITES BSC 2005 or BOT 2010C or BOT 2011C

RECOMMENDED BACKGROUND

This introductory course is intended for students who have no prior coursework in viticulture. It is desirable for students to have some background in agricultural sciences. For students who do not have a background in agricultural and food sciences, it is highly recommended to consult with the course instructor prior to registration for this course.

COURSE DESCRIPTION

This course aims to teach students current practices for establishing a vineyard and maintaining its health and productivity into the final quality of the grape. Topics covered include grape varietal selection, site selection and preparation, vine growth, training and trellis systems, and equipment used in vineyard and wine production.

LEARNING OBJECTIVES

Upon successful completion of this course, students will be able to:

- Discuss the cultural practices used in vineyard.
- Explain the importance of grape quality in the final quality of the wine
- Discuss grape varieties and their characteristics used in the production of wine as well as about the technology used in grape and wine production

- Explain vineyard problems (e.g., diseases, pests, poor canopy, nutrition and soil/water issues) that could impact final grape and wine quality/flavors.
- Relay information about the basic steps and equipment involved in wine making.

COURSE MATERIALS

Textbook

None required. Recommended textbooks:

- Wine Grape Production Guide for Eastern North America, T.K. Wolf (ed.), Natural Resource, Agriculture, and Engineering Service (NRAES), 2008. ISBN-10: 1933395125.
- Johnson, H. and Robinson, J. 2013. The World Atlas of Wine 7th Edition. Mitchell Beasley, London, UK ISBN: 1-84000-332-4.

COURSE GRADE

1. **Midterm exam** **50 points**

Mid-semester exam will take place during scheduled class periods. Exam includes true/false, multiple choice, ordering, and short answer question. Exam will take 50 minutes.

2. **Final exam** **50 points**

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Points earned in both assignments will be summed to calculate student final grade out of 100 points. Letter grades will be based on the performance of each student relative to the following standard percentages (%):

GRADING SCALE

A	=	95 - 100 points	C	=	< 77 - 73 points
A-	=	< 95 - 90 points	C-	=	< 73 - 70 points
B+	=	< 90 - 87 points	D+	=	< 70 - 67 points
B	=	< 87 - 83 points	D	=	< 67 - 63 points
B-	=	< 83 - 80 points	D-	=	< 63 - 60 points
C+	=	< 80 - 77 points	E	=	<60 points

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COURSE POLICIES

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  Counseling Services

  Groups and Workshops

  Outreach and Consultation

  Self-Help Library

  Wellness Coaching

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HOS3XXX – VITICULTURE FOR TABLE GRAPES & WINE

Date	Topics and assessments due
Week 1	History, origin of commercial grape varieties and botany of the grape
Week 2	Overview of wine regions, and climate and environment
Week 3	Biology of the grapevine vegetative and reproductive growths
Week 4	Site selection and vineyard establishment
Week 5	Vine training, trellising and canopy management
Week 6	Vineyard production cycle, irrigation and nutrition management
Week 7	Weed, disease and insect management
Week 8	Mid semester summary, review, and exam
Week 9	Yield, fruit quality, harvest parameters
Week 10	Raw materials (grapes, adjuncts, yeast)
Week 11	Vineyard and winery equipment and facilities
Week 12	Fermentation processing; pre- and post-fermentation
Week 13	Science of winemaking: Red wine vs White
Week 14	The ultimate product; wine aging, sensory evaluation; other products; raisins, table grapes and juice
Week 15	Wine marketing and regulations, and vineyard/winery and agritourism

(5)

Cover Sheet: Request 12997

HOS 3XXX – The Organic Debate: Organic Agriculture Development & Regulations

Info

Recycled

Process	Course|New|Ugrad/Pro
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Gerardo Nunez Villegas g.nunez@ufl.edu
Created	9/5/2018 1:28:39 PM
Updated	10/3/2018 4:09:12 PM
Description of request	We request to create a new course titled HOS 3XXX – The Organic Debate: Organic Agriculture Development & Regulations

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		9/5/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Recycled by the CALS CC on 9/14/18.	9/21/2018
No document changes					
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		9/21/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Department approved prior to corrections being made and thus the request has been recycled again.	9/24/2018
No document changes					
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		9/24/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Approved by error.	9/24/2018
No document changes					
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		10/3/2018
Syllabus - HOS 3XXX - The Organic Debate - For CALS CC.pdf					10/3/2018
College	Pending	CALS - College of Agricultural and Life Sciences			10/3/2018
No document changes					
University Curriculum Committee					
No document changes					

Step	Status	Group	User	Comment	Updated
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Course|New for request 12997

Info

Request: HOS 3XXX – The Organic Debate: Organic Agriculture Development & Regulations
Description of request: We request to create a new course titled HOS 3XXX – The Organic Debate: Organic Agriculture Development & Regulations
Submitter: Gerardo Nunez Villegas g.nunez@ufl.edu
Created: 10/3/2018 2:55:45 PM
Form version: 2

Responses

Recommended Prefix HOS
Course Level 3
Number XXX
Category of Instruction Intermediate
Lab Code None
Course Title The Organic Debate: Organic Agriculture Development & Regulations
Transcript Title Organic Ag Debate
Degree Type Baccalaureate

Delivery Method(s) On-Campus
Co-Listing No
Co-Listing Explanation Not applicable
Effective Term Earliest Available
Effective Year Earliest Available
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 1

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 1
Course Description Organic farming is a rapidly developing production system. This introductory course provides a critical analysis of organic agriculture growth, consumer perceptions, and regulations at the national and international level. This course also focuses on organic agriculture transdisciplinary innovations and challenges in advancing environmental, economic, and social sustainability of food production.
Prerequisites BSC1920 or BSC2005 or BSC2010 or BOT2010C or BSC2011 or BOT2011C
Co-requisites None
Rationale and Placement in Curriculum This course complements our existing courses in organic horticulture by focusing on current and emerging technologies and regulations that affect organic agriculture.
This course will be required in our Organic Horticultural Systems specialization and elective for students in other specializations in the BS in Horticultural Sciences. It is also expected that this course will serve as an introduction to organic agriculture for students outside the major.
Course Objectives Upon successful completion of this course, students will be able to:

- Critically assess consumer perceptions of organic agriculture and organic agriculture research.
- Explain the systems approach used in organic production.
- Evaluate the dynamics of organic agriculture regulations at both national and international levels.
- Demonstrate a working knowledge of organic standards and certification process.
- Discuss major challenges and critical areas for future development in organic farming to improve food security and long-term sustainability.

Course Textbook(s) and/or Other Assigned Reading There are no required textbooks for this course. Journal articles, websites, videos, and other materials will be collectively used.
Weekly Schedule of Topics Week 1. Introduction and course requirements; Effective use of library resources

Week 2. History of organic agriculture movement; Growth of organic markets and consumer demand; What does "Organic" mean?
Week 3. Why regulate organic agriculture?; Basic elements of organic standards
Week 4. The National Organic Program and organic certification process
Week 5. Organic crop production system overview
Week 6. Organic animal production system overview (case study report #1 due)
Week 7. Invited discussions with certifying agents
Week 8. The organic vs. conventional debate; Assessing organic agriculture research
Week 9. Can organic agriculture feed the world? An in-depth look at science and technology integration and innovations in organic farming
Week 10. A virtual visit to certified organic farms (case study report #2 due)
Week 11. Organic agriculture development around the world: Europe
Week 12. Organic agriculture development around the world: Asia
Week 13. Organic agriculture development around the world: Other regions
Week 14. The organic struggle (case study report #3 due)
Week 15. The future of organic agriculture towards long-term sustainability
Final exams week (Organic agriculture innovation video due)

Links and Policies COURSE POLICIES
Additional information on current UF grading policies for assigning grade points can be found here:
- Grading policy, https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

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Services for Students with Disabilities
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  Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Wellness Coaching
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Additionally, if you would like orientation on choosing a major, finding an internship, or planning your career, I encourage you to use the university's on-campus resources.

- Career Resource Center, CR-100 Reitz Union, 392-1601, https://career.ufl.edu/

Course Evaluation Process
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You can file and resolve any complaints about your experience in this course in the following site:

- Student complaints in residential courses, https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

Grading Scheme 1. Quizzes (200 points)
There will be ten online open-book quizzes during the semester. Students will take each of the 20-point quizzes within 30 minutes on E-learning between Thursday and the following Tuesday after the quiz is posted in E-learning. Students must work individually.

2. Case study report (300 points)
Each student will conduct three case studies and complete the analytical reports for each case study during the semester. Each case study report is worth 100 points. In each case study, students will choose a specific area to critically analyze the role of organic agriculture, including organic regulations, in developing sustainable food systems as well as potential challenges and issues based on a comprehensive review of scientific literature.

3. Organic agriculture innovation video (150 points)
This is a group project. Each group of 3 students will produce a 5-minute video to discuss major advancements and challenges in organic agriculture development and identify directions for future innovations to overcome those challenges.

All points earned in the course will be summed to calculate your final grade. Letter grades will be based on the performance of each student relative to the following standard percentages (%) out of a total of 650 points:

100 ? 93	A	<77 ? 73	C
<93 ? 90	A-	<73 ? 70	C-
<90 ? 87	B+	<70 ? 67	D+
<87 ? 83	B	<67 ? 63	D
<83 ? 80	B-	<63 ? 60	D-
<80 ? 77	C+	<60 ? 0 E	

Please feel free to discuss your grades with the instructor at any time during the semester.
Instructor(s) Xin Zhao

HOS 3XXX
The Organic Debate: Organic Agriculture Development & Regulations
1 CREDIT
Fall Semester
W Period 9, 4:05-4:55 PM
2316 Fifield

HORTSCI
Fruits and vegetables for Florida and beyond

INSTRUCTOR
Dr. Xin Zhao
1235 Fifield Hall
(352) 273-4773
Email: zxin@ufl.edu

Office hours: MW 1:50-2:30 PM. If you are unable to meet me at this time, feel free to email me to request an appointment.

Prereq: BSC 1920 or BSC 2005 or BSC 2010 or BOT 2010C or BSC 2011 or BOT 2011C

COURSE DESCRIPTION
Organic farming is a rapidly developing production system. This introductory course provides a critical analysis of organic agriculture growth, consumer perceptions, and regulations at the national and international level. This course also focuses on organic agriculture transdisciplinary innovations and challenges in advancing environmental, economic, and social sustainability of food production.

LEARNING OBJECTIVES
Upon successful completion of this course, students will be able to:

- Critically assess consumer perceptions of organic agriculture and organic agriculture research.
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- Demonstrate a working knowledge of organic standards and certification process.
- Discuss major challenges and critical areas for future development in organic farming to improve food security and long-term sustainability.

TEXTBOOK
There are no required textbooks for this course. Journal articles, websites, videos, and other materials will be collectively used. E-learning (http://elearning.ufl.edu/) is also used in this course to post lectures, assignments, reading materials, useful websites, video clips, study guides, and grades.

COURSE GRADE

1. Quizzes **200 points**

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<93 – 90	A-	<73 – 70	C-
<90 – 87	B+	<70 – 67	D+
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<83 – 80	B-	<63 – 60	D-
<80 – 77	C+	<60 – 0	E

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Lecture Schedule

HOS 3XXX – The Organic Debate: Organic Agriculture Development & Regulations

Date	Lecture topic
Week 1	Introduction and course requirements; Effective use of library resources
Week 2	History of organic agriculture movement; Growth of organic markets and consumer demand; What does "Organic" mean?
Week 3	Why regulate organic agriculture?; Basic elements of organic standards
Week 4	The National Organic Program and organic certification process
Week 5	Organic crop production system overview
Week 6	Organic animal production system overview (*case study report #1 due*)
Week 7	Invited discussions with certifying agents
Week 8	The organic vs. conventional debate; Assessing organic agriculture research
Week 9	Can organic agriculture feed the world? An in-depth look at science and technology integration and innovations in organic farming
Week 10	A virtual visit to certified organic farms (*case study report #2 due*)
Week 11	Organic agriculture development around the world: Europe
Week 12	Organic agriculture development around the world: Asia
Week 13	Organic agriculture development around the world: Other regions
Week 14	The organic struggle (*case study report #3 due*)
Week 15	The future of organic agriculture towards long-term sustainability
Final exams week	*(Organic agriculture innovation video due)*

Cover Sheet: Request 13001

HOS 4XXX C – Principles of Postharvest Horticulture Recycled

Info

Process	Course|New|Ugrad/Pro
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Gerardo Nunez Villegas g.nunez@ufl.edu
Created	9/5/2018 3:41:52 PM
Updated	10/3/2018 4:10:40 PM
Description of request	We request to create a new course titled HOS 4XXX C – Principles of Postharvest Horticulture

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		9/5/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Recycled by the CALS CC on 9/14/18.	9/21/2018
No document changes					
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		9/21/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Department approved prior to corrections being made and thus it is being recycled again.	9/24/2018
No document changes					
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		9/24/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Approved in error	9/24/2018
No document changes					
Department	Approved	CALS - Horticultural Sciences 514923000	Christine Chase		10/3/2018
Syllabus - HOS 4XXXC - Principles of Postharvest Horticulture - After CALS CC.pdf					10/3/2018
Support letter HOS4XXXC - Principles of Postharvest Horticulture.pdf					10/3/2018
College	Pending	CALS - College of Agricultural and Life Sciences			10/3/2018
No document changes					
University Curriculum Committee					

Step	Status	Group	User	Comment	Updated
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Course|New for request 13001

Info

Request: HOS 4XXX C – Principles of Postharvest Horticulture
Description of request: We request to create a new course titled HOS 4XXX C – Principles of Postharvest Horticulture
Submitter: Gerardo Nunez Villegas g.nunez@ufl.edu
Created: 10/3/2018 10:11:31 AM
Form version: 2

Responses

Recommended Prefix HOS
Course Level 4
Number XXX
Category of Instruction Advanced
Lab Code C
Course Title Principles of Postharvest Horticulture
Transcript Title Postharvest Hort
Degree Type Baccalaureate

Delivery Method(s) Online
Co-Listing No
Co-Listing Explanation Not applicable
Effective Term Earliest Available
Effective Year Earliest Available
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 3

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 3
Course Description Biological principles involved in harvesting, grading, packaging, transportation, and marketing horticultural crops, and their effects on quality maintenance. Commercial postharvest practices explained in relation to general procedures and technologies as well as the recommended postharvest best handling practices and optimum postharvest conditions for different types of horticultural crops.
Prerequisites HOS4304
Co-requisites None
Rationale and Placement in Curriculum Horticulture does not end at harvest. Postharvest horticulture is an important aspect of horticultural production quality and efficiency.
This course will be required in the Organic Horticultural Systems and Science and Technology of Horticultural Crops specializations (BS in Horticultural Sciences). Additionally, this course will be an elective in the Plant Biotechnology and Improvement specialization (BS in Horticultural Sciences).
Course Objectives Upon completion of the course, students will be prepared to,
1. Recognize the factors related to quality deterioration and wastage of horticultural commodities after harvest, including physiological, biochemical, and pathological considerations, as well as compositional and physical changes occurring during maturation and deterioration.
2. Relate commercial procedures for harvesting, preparation, packaging, transportation, and storage of horticultural crops to the biological principles and individual commodity requirements and responses.
3. Evaluate postharvest handling systems and recommend improved practices that will better maintain product quality during the postharvest period.

Course Textbook(s) and/or Other Assigned Reading No textbook is required for the course. However, the following supplemental reading sources may be helpful during this course.
- Postharvest: An Introduction to the Physiology and Handling of Fruit and Vegetables 6th

edition, 2016, by R. B. H. Wills et al. (CAB International, New York).
- Postharvest technology of horticultural crops, 3rd edition, 2002, edited by A. A. Kader (Coop. Ext., Univ. of Calif. Div. Nat. Res., Berkeley, CA).
- Postharvest physiology and pathology of vegetables. 2nd edition, 2003, edited by J.A. Bartz and J.K. Brecht (Marcel Dekker, Inc., New York)
- Postharvest biology. 2004, S.J. Kays and R.E. Paull (Exon Press, Athens, GA).
- Postharvest Handling. A Systems Approach, 3rd edition, 2014, edited by W.J. Florkowski, R.L. Shewfelt, B. Brueckner, and S.E. Prussia (Academic Press, San Diego)

Weekly Schedule of Topics Week 1
Introduction - Postharvest deterioration and losses
Morphology, structure, growth and development
Week 2
Composition of horticultural crops
Compositional changes during maturation & ripening
Week 3
Ethylene & other plant hormones - role in senescence
Ethylene and fruit ripening
Week 4
Respiration - introduction, measurement
Respiration - internal and environmental factors
Week 5
Transpiration & water loss
Physiological disorders
Week 6
Postharvest pathology - host-parasite interactions
Postharv. pathol. - environmental factors & control
Week 7
Maturity and quality standards
Food safety & quarantine treatments
Week 8
Harvesting, handling and packinghouse operations
Temp. management - cooling methods & principles
Week 9
Commercial storage; modified & controlled atmospheres
Transportation & the distribution system
Week 10
Subtropical fruits
Tropical fruits
Week 11
Small fruits
Pome & Stone fruits
Week 12
Vegetables – leafy & succulent
Vegetables – storage organs
Week 13
Vegetables – immature & mature fruits
Fresh-cut vegetables & fruits
Week 14
Cut flowers & potted plants
Week 15
Review and Final Exam
Links and Policies COURSE POLICIES
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  Counseling Services

Groups and Workshops
Outreach and Consultation
Self-Help Library
Wellness Coaching

- U Matter We Care, www.umatter.ufl.edu
- Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161.
- University Police Department, 392-1111 (or 9-1-1 for emergencies), www.police.ufl.edu

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Student Complaints

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Grading Scheme 1. Midterm 1 100 points
2. Midterm 2 100 points
3. Final Exam 200 points
4. Laboratory reports 100 points

Total 500 points

Exams will be open book with 1 week to complete.
Students will conduct laboratory exercises during the semester and create PowerPoint reports for other students to view. Detailed instructions for the laboratory exercises will be distributed separately.

GRADING SCALE
A (4.0)

= 470 - 500 points (94-100%)
A- (3.67)

= 450 - <470 points (90-93%)
B+ (3.33)

= 435 - <450 points (87-89%)
B (3.0)

= 415 - <435 points (83-86%)
B- (2.67)

= 400 - <415 points (80-82%)
C+ (2.33)

= 385 - <400 points (77-79%)
C (2.0)

= 365 - <385 points (73-76%)
C- (1.67)

= 350 - <365 points (70-72%)
D+ (1.33)

= 335 - <350 points (67-69%)
D (1.0)

= 315 - <335 points (63-66%)
D- (0.67)

= 300 - <315 points (60-62%)
E (0)

=

< 300 points (<60%)
Instructor(s) Jeffrey K. Brecht
Mark Ritenour

UF UNIVERSITY of FLORIDA

Institute of Food and Agricultural Sciences
Horticultural Sciences Department

1113 Fifield Hall
PO Box 110690
Gainesville, FL 32611-0690
352-273-4765
352-392-6479 Fax

Dear colleagues in the CALS Curriculum Committee,

We request to create a new undergraduate course titled *Principles of Postharvest Horticulture*. This course will focus on biological phenomena that affect horticultural crops after harvest. While the title is shared with our existing graduate course (HOS 5085C), the graduate and undergraduate courses will not be co-listed. Each course, will have different pre-recorded lectures and assignments.

Please, do not hesitate to contact us if we can furnish you with additional information.

Sincerely,

Dr. Jeffrey K. Brecht

Dr. Mark Ritenour

Instructors – *Principles of Postharvest Horticulture*

HORTSCI

Fruits and vegetables for Florida and beyond

HOS 4XXX C – Principles of Postharvest Horticulture

3 CREDITS

MEETING TIMES AND LOCATION

Students view web-based lecture and demonstration materials and participate in a weekly discussion session (day/time TBD) conducted either in-person or by videoconferencing according to student needs.

INSTRUCTORS

Dr. Jeffrey K. Brecht	**Dr. Mark Ritenour**
1217 Fifield Hall	IRREC – Ft. Pierce
(352) 273-4778	(772) 201-5548
jkbrecht@ufl.edu	ritenour@ufl.edu

Office hours Mondays 3:00PM- 5:00PM, but students are encouraged to contact instructors via e-mail or phone outside of office hours whenever questions are encountered.

PRE-REQUISITES HOS 4304 – Horticultural Physiology

COURSE DESCRIPTION

Biological principles involved in harvesting, grading, packaging, transportation, and marketing horticultural crops, and their effects on quality maintenance. Commercial postharvest practices explained in relation to general procedures and technologies as well as the recommended postharvest best handling practices and optimum postharvest conditions for different types of horticultural crops.

LEARNING OBJECTIVES

Upon completion of the course, students will be prepared to,

1. Recognize the factors related to quality deterioration and wastage of horticultural commodities after harvest, including physiological, biochemical, and pathological considerations, as well as compositional and physical changes occurring during maturation and deterioration.
2. Relate commercial procedures for harvesting, preparation, packaging, transportation, and storage of horticultural crops to the biological principles and individual commodity requirements and responses.
3. Evaluate postharvest handling systems and recommend improved practices that will better maintain product quality during the postharvest period.

COURSE GRADE

1.	**Midterm 1**	**100 points**
2.	**Midterm 2**	**100 points**
3.	**Final Exam**	**200 points**
4.	**Laboratory reports**	**100 points**
	Total	**500 points**

Exams will be open book with 1 week to complete.

Students will conduct laboratory exercises during the semester and create PowerPoint reports for other students to view. Detailed instructions for the laboratory exercises will be distributed separately.

GRADING SCALE

A	(4.0)	=	470 - 500 points (94-100%)	C	(2.0)	=	365 - <385 points (73-76%)
A-	(3.67)	=	450 - <470 points (90-93%)	C-	(1.67)	=	350 - <365 points (70-72%)
B+	(3.33)	=	435 - <450 points (87-89%)	D+	(1.33)	=	335 - <350 points (67-69%)
B	(3.0)	=	415 - <435 points (83-86%)	D	(1.0)	=	315 - <335 points (63-66%)
B-	(2.67)	=	400 - <415 points (80-82%)	D-	(0.67)	=	300 - <315 points (60-62%)
C+	(2.33)	=	385 - <400 points (77-79%)	E	(0)	=	< 300 points (<60%)

Additional information on current UF grading policies for assigning grade points can be found here:

- *Grading policy*, https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

COURSE MATERIALS

TEXTBOOK

No textbook is required for the course. However, the following supplemental reading sources may be helpful during this course.

- Postharvest: An Introduction to the Physiology and Handling of Fruit and Vegetables 6th edition, 2016, by R. B. H. Wills et al. (CAB International, New York).
- Postharvest technology of horticultural crops, 3rd edition, 2002, edited by A. A. Kader (Coop. Ext., Univ. of Calif. Div. Nat. Res., Berkeley, CA).
- Postharvest physiology and pathology of vegetables. 2nd edition, 2003, edited by J.A. Bartz and J.K. Brecht (Marcel Dekker, Inc., New York)
- Postharvest biology. 2004, S.J. Kays and R.E. Paull (Exon Press, Athens, GA).
- Postharvest Handling. A Systems Approach, 3rd edition, 2014, edited by W.J. Florkowski, R.L. Shewfelt, B. Brueckner, and S.E. Prussia (Academic Press, San Diego)

COURSE POLICIES

Attendance and Make-up Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

- *UF Attendance policy*, https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

- For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code

Software Use

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

Services for Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

- *Disability Resource Center*, 0001 Reid Hall, (352) 392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling

services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *Counseling and Wellness Center*, 3190 Radio Road, 392-1575, www.counseling.ufl.edu

  Counseling Services

  Groups and Workshops

  Outreach and Consultation

  Self-Help Library

  Wellness Coaching

- *U Matter We Care*, www.umatter.ufl.edu
- *Sexual Assault Recovery Services (SARS),* Student Health Care Center, 392-1161.
- *University Police Department*, 392-1111 (or 9-1-1 for emergencies), www.police.ufl.edu

Additionally, if you would like orientation on choosing a major, finding an internship, or planning your career, I encourage you to use the university's on-campus resources.

- *Career Resource Center,* CR-100 Reitz Union, 392-1601, https://career.ufl.edu/

Course Evaluation Process

Student assessment of instruction is an important part of the effort to improve teaching and learning. At the end of the semester, you are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at:

- *Course evaluations*, www.evaluations.ufl.edu

Evaluations are typically open during the last two or three weeks of the semester. You will be notified of the specific times when evaluations for this course are open. Summary results of these assessments are available to students at:

- *Evaluations summary,* www.evaluations.ufl.edu/results

Student Complaints

You can file and resolve any complaints about your experience in this course in the following site:

- *Student complaints in online courses,* http://distance.ufl.edu/student-complaint-process/

HOS4XXXC

PRINCIPLES OF POSTHARVEST HORTICULTURE

Course Schedule

Lec. #	Instr.	Lecture Topic	Supplemental Reading
I. BIOLOGICAL CONSIDERATIONS			
1	MAR	Introduction - Postharvest deterioration and losses	Kader Ch. 4; Wills Ch. 1
2	JKB	Morphology, structure, growth and development	Wills Ch. 2
	Discussion date #1: (Lec. 1-2) Date TBD - Week 1		Kays & Paull Ch. 2
3	JKB	Composition of horticultural crops	Florkowski Ch. 5
4	JKB	Compositional changes during maturation & ripening	Wills Ch. 3 &
	Discussion date #2: (Lec. 3-4) Date TBD - Week 2		
5	JKB	Ethylene & other plant hormones - role in senescence	Bartz & Brecht Ch. 3
6	JKB	Ethylene and fruit ripening	Bartz & Brecht Ch. 10
	Discussion date #3: (Lec. 5-6) Date TBD - Week 3		
7	MAR	Respiration - introduction, measurement	Bartz & Brecht Ch. 2
8	MAR	Respiration - internal and environmental factors	Kays & Paull Ch. 3
	Discussion date #4: (Lec. 7-8) Date TBD - Week 4		Kays & Paull Ch. 4
9	MAR	Transpiration & water loss	Bartz & Brecht Ch. 5
10	JKB	Physiological disorders	Wills Ch. 8
	Discussion date #5: (Lec. 9-10) Date TBD - Week 5		Bartz & Brecht Ch. 19
MIDTERM EXAM - through physiological disorders (lectures 1-10)			
Posting date: Friday of Week 5; Due date: Friday of Week 6			
11	Bartz	Postharvest pathology - host-parasite interactions	Bartz & Brecht Ch. 24
12	Bartz	Postharv. pathol. - environmental factors & control	Bartz & Brecht Ch. 20-23
	Discussion date #6: (Lec. 11-12) Date TBD - Week 6		
II. COMMERCIAL PRACTICES			
13	JKB	Maturity and quality standards	Florkowski Ch. 8 & 14, Kader Ch. 6 & 23
14	MAR	Food safety & quarantine treatments	Kader Ch. 19 & 24

Discussion date #7: (Lec. 13-14) Date TBD - Week 7

15	MAR	Harvesting, handling and packinghouse operations	Bartz & Brecht Ch. 16
16	MAR	Temp. management - cooling methods & principles	Bartz & Brecht Ch. 8
		Discussion date #8: (Lec. 15-16) Date TBD - Week 8	Bartz & Brecht Ch. 9
			Kader Ch. 11
17	JKB	Commercial storage; modified & controlled atmospheres	Wills Ch. 6&7
18	MAR	Transportation & the distribution system	Kader Ch. 20
			Florkowski Ch. 16

Discussion date #9: (Lec. 17-18) Date TBD - Week 9

MIDTERM EXAM – Postharvest pathology through distribution and marketing (lectures 11-18)
Posting date: Friday of Week 9; **Due date:** Friday of Week 10

III. COMMODITY REQUIREMENTS

19	MAR	Subtropical fruits	Kader Ch. 30
20	JKB	Tropical fruits	Kader Ch. 31
		Discussion date #10: (Lec. 19-20) Date TBD - Week 10	
21	MAR	Small fruits	Kader Ch. 29
22	JKB	Pome & Stone fruits	Kader Ch. 27-28
		Discussion date #11: (Lec. 21-22) Date TBD - Week 11	Kader Ch. 34
23	JKB	Vegetables – leafy & succulent	Bartz & Brecht Ch. 25
24	JKB	Vegetables – storage organs	Bartz & Brecht Ch. 26
			Kader Ch. 35
		Discussion date #12: (Lec. 23-24) Date TBD - Week 12	Kader Ch. 33
25	JKB	Vegetables – immature & mature fruits	Bartz & Brecht Ch. 27-28
26	JKB	Fresh-cut vegetables & fruits	Bartz & Brecht Ch. 29
			Kader Ch. 36
		Discussion date #13: (Lec. 25-26) Date TBD - Week 13	
27	MAR	Cut flowers & potted plants	Kader Ch. 25
		Discussion date #14: (Lec. 27) Date TBD - Week 14	

Review Session: 12/4. Final Exam distributed afterwards, due 1 week later.

December X – Last Day of Classes
Dec. X & Y – Reading Days

FINAL EXAM – Cumulative (50%), but focusing on lectures 19–27 (50%)
Posting date: Last class meeting; **Due date:** 1 week later

HOS 4XXXC

PRINCIPLES OF POSTHARVEST HORTICULTURE

Laboratory Schedule

Lab. #	Periods	Laboratory Topic
1.	1	Introduction - tour of postharvest laboratory facilities; methods for measuring respiration and ethylene; quality evaluation systems.
2.	4	Factors affecting respiration, ethylene production and deterioration: 1. Commodity type 2. Time and temperature 3. Modified/controlled atmospheres 4. Ethylene 5. Physical damage
3.	2	Factors affecting transpiration and water loss: 1. Water vapor pressure difference 2. Air velocity 3. Product surface to volume ratio and surface properties 4. Water vapor barriers (films and coatings)
4.	1	USDA grade standards
5.	2	Physiological disorders: 1. Low temperature (chilling) injury 2. High temperature injury
6.	2	Pathological considerations: 1. Physiological state of the commodity 2. Temperature and moisture 3. Surface barriers 4. Chemical control
7.	1	Field trip to observe harvesting, packinghouse, storage and transport operations.
8.	1	Field trip to a wholesale produce distribution center.

(7)

Cover Sheet: Request 11709

Approval of new course: MCB Synthetic Biology

Recycled

Info

Process	Course|New|Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Monika Oli moli@ufl.edu
Created	6/15/2017 10:08:06 AM
Updated	9/12/2018 2:54:46 PM
Description of request	Approval of new course: Microbial Applications of Synthetic Biology - MCB 6xxx

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		6/15/2017
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Email sent to submitter with comments.	8/31/2017
No document changes					
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		12/12/2017
Reisch UCC consults.pdf					8/31/2017
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	This course was recycled by the CALS CC. Needed corrections were emailed to the submitter on 1/29/18.	2/7/2018
No document changes					
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		3/8/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Recycled by the CALS Curriculum Committee. Comments will be sent to submitter.	5/7/2018
No document changes					
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		9/12/2018
Reisch MCS Synethic Biology Course Differences.docx					9/12/2018
College	Pending	CALS - College of Agricultural and Life Sciences			9/12/2018
No document changes					
Graduate Curriculum Committee					
No document changes					

Step	Status	Group	User	Comment	Updated
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|New for request 11709

Info

Request: Approval of new course: MCB Synthetic Biology
Description of request: Approval of new course: Microbial Applications of Synthetic Biology - MCB 6xxx
Submitter: Monika Oli moli@ufl.edu
Created: 9/26/2018 1:32:42 PM
Form version: 2

Responses

Recommended Prefix MCB
Course Level 6
Number xxx
Category of Instruction Joint (Ugrad/Grad)
Lab Code None
Course Title Microbial Applications of Synthetic Biology
Transcript Title Microbe Synthetic Bio
Degree Type Baccalaureate

Delivery Method(s) Online
Co-Listing Yes
Co-Listing Explanation The differences between the classes are spelled out in a separate document
Effective Term Earliest Available
Effective Year Earliest Available
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 3

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 3
Course Description Synthetic biology is the the construction and reconstruction of biological systems, and its practical applications in research and industry. Advanced molecular biology tools for DNA assembly, the construction of biological pathways and circuits, genome editing, and strategies for transcriptional control will be examined in the course.

Prerequisites MCB 3020 or 3023
Co-requisites N/A
Rationale and Placement in Curriculum This course is an important addition to our curriculum, explaining the most current technologies to our students. None of the other course cover the topics discussed in this class.
Course Objectives 1. Define synthetic biology and understand its importance in the 21st century.
2. Classify and analyze biological parts and their function on the systems level.
3. Describe and discuss advanced molecular biology techniques that facilitate the building of biological parts and systems.
4. Argue both sides of ethical decisions and containment strategies in synthetic biology
5. Demonstrate the ability to critically evaluate current literature in the field.
6. Rationally design experiments to investigate problems in synthetic biology and related fields.

Course Textbook(s) and/or Other Assigned Reading N/A

specific primary readings are outlined in the syllabus week by week
Weekly Schedule of Topics Date (week)
Topic

1

Introduction to Synthetic Biology, Molecular Biology, and Biochemistry

2 - 3
Biological Parts – Promoters, Regulators, Genes, Terminators, Proteins

4
Controlling Gene Expression and Protein Production,

5
Artificial Gene Circuits, Noise in Gene Expression, Test 1

6
BioSensors – Construction and Application

7
Recombinant DNA technologies, Cloning techniques and strategies

8 - 9
Genome Editing - Transposons, Recombinases, Zinc Fingers, TALEN's, CRISPR/Cas9

10
DNA synthesis and Assembly, Test 2

11
Metabolic Engineering – Techniques and Applications,

12
Accelerated Evolution Systems - MAGE, PACE,

13
Synthetic Cells - Recoded E. coli and JCVIsyn1-3.0

14
Containment strategies, Ethical considerations

Links and Policies Evaluation of Learning/Grades

3 Exams (100 pts each) –	300 points
Discussion, Quizzes, Homework –	100 points
Written Proposal –	100 points

Exams
There will be 3 exams administered throughout the semester at approximately 5 week intervals. All material covered during class will be subject to testing. Tests are conceptually cumulative because understanding of topics covered early in the course will be required to understand materials covered later in the course.
Discussion, Quizzes, Homework
Throughout the semester there will be quizzes, discussions, and homework assigned for grades that will total 100 points.
Proposals
Each student will be responsible for writing a research proposal that aims to investigate a novel idea in the field of synthetic biology that is of scientific or industrial interest. The proposal for students in the 4xxx level course will be 3 pages single-spaced, while the 6xxx level students are expected to write 6 pages with more detailed experimental approaches. Grading rubrics will be provided in class.
Grading Policy
Final letter grades will be assigned based on the number of points earned, as follows:
A = 470-500 points
A- = 450 – 469 points
B+ = 435 – 449 points
B = 415-434 points
B- = 400-414 points
C+ = 385-399 points
C = 365-384 points

C- = 350-364 points
D+ = 330-349 points
D = 300-329 points
E = 0-299 points
More information on grades and grading policies is here:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Grading Scheme 3 Exams (100 pts each) – 300 points
Discussion, Quizzes, Homework – 100 points
Written Proposal – 100 points

Instructor(s) Dr. Christopher Reisch - creisch@ufl.edu

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
Agricultural and Biological Engineering	Dorota Z. Haman - Professor and Chair
Phone Number	**E-mail**
(352) 392-1864 ext 120	dhaman@ufl.edu

Comments

Please see attached email correspondence. Dr. Haman identified two courses with the potential for minor overlap, but she was happy that the course would be offered at UF.

Department	Name and Title
Molecular Genetics and Microbiology	Henry V. Baker, Professor and Chair
Phone Number	**E-mail**
(352) 273-5935	baker@mgm.ufl.edu

Comments

Dr. Baker saw no potential overlap and believed that the course would complement existing courses in MGM.

Department	Name and Title
Biochemistry and Molecular Biology	James Flanegan, Professor and Chair
Phone Number	**E-mail**
(352) 294-8384	flanegan@ufl.edu

Comments

See attached correspondence. Dr. Flanegan and Dr. Tom Yang found a "relatively small amount of overlap" with courses in BMB, though the overlap is not a concern to the department.

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
Biology	Prof. Marta Wayne
Phone Number	**E-mail**
352-392-9925	mlwayne@ufl.edu

Comments

The Department of Biology is also offering a course on synthetic biology taught by Dr. Ed Braun. Dr. Braun and I have been in contact and aim to make the two courses complementary and not competing. See the attached correspondance for details on the the specifics of each course.

Department	Name and Title
Phone Number	**E-mail**

Comments

Department	Name and Title
Phone Number	**E-mail**

Comments

Re: External Consult for MCS course

Pullammanappallil,Pratap C

Wed 3/1/2017 6:36 PM

To:Haman,Dorota Zofia <dhaman@ufl.edu>; Chris Reisch <creisch@ufl.edu>;

Hi Chris
The Applied Microbiology and Biotechnology covers industrial fermentation and wastewater treatment applications of biotechnology. The focus is on the process engineering aspects along with mathematical modeling of processes. So I do not see any overlap with your proposed course.
I will be recommending your Synthetic Biology course to my graduate students.

Best Regards
Pratap

From: Dorota Haman <dhaman@ufl.edu>
Date: Wednesday, March 1, 2017 at 12:35 PM
To: Chris Reisch <creisch@ufl.edu>
Cc: "Correll,Melanie J" <correllm@ad.ufl.edu>, Pratap Pullammanappallil <pcpratap@ufl.edu>
Subject: Re: External Consult for MCS course

Chris,
Pratap Pullammanappallil is teaching ABE4600 and as far as I know, he does not teach synthetic biology in it. I have copied him on this email. Melanie Correll is also very interested in your class – she talked about synthetic biology in her class and works with a team of students on synthetic biology competition – I also copied her on this email. These are two faculty members that you may want to talk to. I am glad to see this class being developed at UF.
Dorota

Dr. Dorota Z. Haman
Professor and Chair
Agricultural and Biological Engineering
120 Rogers Hall
PO Box 110570
University of Florida
Gainesville FL 32611-0570

Tel: (352) 392-1864 ext 120
Fax: (352) 392-4092
email:dhaman@ufl.edu
http://abe.ufl.edu/

From: Chris Reisch <creisch@ufl.edu>
Date: Wednesday, March 1, 2017 at 10:18 AM
To: Dorota Haman <dhaman@ufl.edu>
Subject: External Consult for MCS course

Hi Dr. Haman,

I'm developing a 4000/6000 level course in synthetic biology that will be listed in Microbiology and Cell Sciences and need to get external consultations for potential course overlap. The course will focus on techniques and microbial applications of synthetic biology, including: methods for transcriptional and transnational control of gene expression, genome evolution and editing, metabolic engineering, and synthetic cell creation. I was specifically concerned about overlap with ABE4600 - Applied Microbial Biotechnology. Is the course still being taught and is there a faculty member that I should contact for consultation? I've attached a draft of the syllabus for your reference.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1146
University of Florida

FW: External Consult for MCS course

Flanegan,James B

Thu 3/23/2017 12:04 PM

To:Chris Reisch <creisch@ufl.edu>;

Cc:Yang,Thomas P <tpyang@ufl.edu>; Triplett,Eric <ewt@ufl.edu>;

Dear Chris,

I asked Dr. Tom Yang to look at your new course for potential overlap with courses in our department. I agree with Dr. Yang's assessment that the relatively small amount of overlap with our courses is not a concern to our department. Let me know if you have any additional questions.

Bert

James B. Flanegan, Ph.D.
Professor and Chair
Department of Biochemistry & Molecular Biology
College of Medicine
University of Florida
flanegan@ufl.edu
(352) 294-8384 (office)

From: Yang,Thomas P
Sent: Wednesday, March 22, 2017 8:55 AM
To: Flanegan,James B <flanegan@UFL.EDU>
Subject: Re: External Consult for MCS course

Bert
There appears to be a bit of overlap in course content but nothing that really concerns me. The emphasis of this new course is so different than ours that it really appears to be a different course.
Tom

On Mar 21, 2017, at 5:45 PM, "Flanegan,James B" <flanegan@UFL.EDU> wrote:

> Tom,
>
> Please look at this and let me know if you think that there is potential overlap with BCH 6415 or BCH 5413. If there is overlap, is it significant enough for us to be "concerned" about it.
>
> Thanks,
>
> Bert

From: Chris Reisch
Sent: Monday, March 20, 2017 1:18 PM
To: Flanegan,James B <flanegan@UFL.EDU>
Subject: External Consult for MCS course

Hi James,

I'm developing a 4000/6000 level course in synthetic biology that will be listed in Microbiology and Cell Sciences and I need to get external consultations for potential course overlap from Department Chairs. The course will focus on techniques and prokaryotic applications of synthetic biology, including; methods for transcriptional and translational control of gene expression, genome evolution and editing, metabolic engineering, and synthetic cell creation. I think there will be minor overlap with BCH 6415 - Advanced Molecular and Cell Biology. I've attached a draft of the syllabus for your reference. Please let me know if you have concern about overlap with this, or any other course offered in BCH.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1152
University of Florida

<Reisch UF synbio syllabus -1.docx>

RE: External consult for MCS course

Baker,Henry V

Tue 3/28/2017 10:53 AM

To:Chris Reisch <creisch@ufl.edu>;

Dear Dr. Reisch,

Thank you for giving me the opportunity to review your proposed syllabus. From the perspective of the department of molecular genetics and microbiology we do not see a potential conflict with your proposed course and the courses we offer. In fact we believe that your course is complementary to some of our offerings and we wish you luck with getting it launched.

Kindest regards,

Henry V. Baker, Ph.D.
Hazel Kitzman Professor of Genetics
Professor of Surgery
Chair, Dept. Molecular Genetics and Microbiology
University of Florida College of Medicine
Associate Director University of Florida Genetics Institute

From: Chris Reisch
Sent: Tuesday, March 28, 2017 10:45 AM
To: Baker,Henry V <hvbaker@UFL.EDU>
Subject: External consult for MCS course

Dear Dr. Baker,

I'm developing a 4000/6000 level course in synthetic biology that will be listed in Microbiology and Cell Sciences and I need to get external consultations for potential course overlap from Department Chairs. The course will focus on techniques and prokaryotic applications of synthetic biology, including; methods for transcriptional and translational control of gene expression, genome evolution and editing, metabolic engineering, and synthetic cell creation. I have attached a draft of the syllabus for your reference. Please let me know if you have concern about overlap with any course in MBM.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1152
University of Florida

Re: external consult for MCB

Wayne,Marta L

Fri 8/18/2017 10:38 AM

To:Chris Reisch <creisch@ufl.edu>;

Cc:Braun,Edward Louis <ebraun68@ufl.edu>;

Dear Chris,

Many thanks! I am really pleased that you and Ed are working together to make complementary courses. I would like to see the two proposals go forward together so that they appear at UCC simultaneously and consults are signed off by Micro and Bio simultaneously as well, so I am cc'ing Ed here and asking him to move forward getting a proposal together. Ed, I think that Tangelyn would be happy to help you if you will just provide her with a syllabus.

Cheers,
Marta

=-=
Marta L. Wayne, Ph. D.
Professor and Chair
P.O. Box 118525
Department of Biology
University of Florida
Gainesville, FL 32611-8525
(courier: 876 Newell Drive)
vox: 352-392-9925
fax: 352-392-3704
http://people.biology.ufl.edu/mlwayne/

> On Aug 17, 2017, at 5:09 PM, Chris Reisch <creisch@ufl.edu> wrote:
>
> Hi Dr. Wayne,
>
> I'm teaching a course in synthetic biology in the department of microbiology and cell science and need to get an external consult from Biology. Ed Braun and I have communicated and plan on making our two courses complimentary, not competing. Below is a brief explanation of the two courses and how they will be different. I've also attached a draft of my syllabus. Hopefully this is satisfactory, let me know what you think.
>
> The proposed course "Microbial Applications of Synthetic Biology," currently being offered by Dr. Christopher Reisch as MCB 4934, will not overlap in any significant way with another course in the same general field that I am developing in the Department of Biology. The Microbiology and Cell Science course and the Biology course have distinct foci, formats, and target audiences. Specifically, the course proposed by Dr. Reisch is heavily focused on methods used in synthetic biology in microbiology and it is an online course. In contrast, the Biology course is focused on conceptual issues associated with the use of synthetic biology to understand minimal genomes and it will be a face-to-face course with student projects.
> Dr. Reisch and I have discussed our courses and both of us feel that we will not be competing for students. Given these clear delineation between the courses students that would like to focus on the details of methodology will be best served by Dr. Reisch's course whereas those focused on

understanding issues of building minimal genomes will be best served by my course. Obviously, there may be some students that will wish to take both courses. However, the differences between our courses mean that students will have complementary experiences.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1152
University of Florida
<Reisch UF synbio syllabus 4.docx>

Microbial Applications of Synthetic Biology
Differences between 4XXX and 6XXX level courses

- Exams – There will be three exams composed of multiple choice, fill in the blank, and essay questions that cover two or three modules of the course. There will be three essay questions per module and **students in 4963 will only be required to answer one of the three questions per module. Students in MCB6937 will be required to answer all essay questions, requiring a more thorough understanding of the material**. Accordingly, the point value of questions will be different for the two courses, with more points derived from the essay questions for the graduate level.
- Presentation of a manuscript from the primary literature (6XXX level only) – Students enrolled in the graduate section will be required to present a manuscript from synthetic biology literature published within the past 3 years. Presentations will be about 15 minutes in length and clearly demonstrate that the student understands the purpose, experimental design, and advancement in knowledge gained from the manuscript. Students will then peer review the presentations of two other students in the course.
- Proposals - Each student will be responsible for writing a research proposal that aims to investigate a novel idea in the field of synthetic biology that is of scientific or industrial interest. The proposals from students enrolled in the graduate course must be longer and have 3 hypothesis driven research objectives. The rubrics for each course are below.

MCB 4934

Introduction (1 page) – Clearly provide relevant background information to provide context of research that has previously been performed in synthetic biology and fields related to your topic. At least 5 sources of primary research papers or literature reviews must be cited.

Significance and Novelty (0.5-1 page) – Identify the gap in knowledge that your proposal will address. Explain why this work is important to the field. What are the benefits to science and society that will result from successful completion of this work? Demonstrate that you understand the subject matter and its greater implications. Cite the primary literature and reviews as necessary.

Experimental Plan (1-2 pages) – Describe 1 research aim that will be used to address the gap in knowledge identified above. Provide a logical workflow that will be used to investigate the research question. The purpose of the experiments should be clear, but the exact experimental conditions do not need to be provided.

MCB 6937

Introduction (2 pages) – Clearly provide relevant background information in the context of research that has previously been performed in synthetic biology and fields related to your topic. At least 10 sources of primary literature must be cited.

Significance and Novelty (1-2 pages) – Identify the gap in knowledge that your proposal will address. Explain why this work is important to the field. What are the benefits to science and society that will result from successful completion of this work? Demonstrate that you have a deep understanding of the subject matter and its greater implications. Cite the primary literature and reviews as necessary.

Experimental Plan (3-5 pages) – Provide 3 hypothesis driven research aims that will be used to address the gap in knowledge identified above. Describe a logical workflow that will be used to investigate each aim. The purpose of the experiments should be clear, and the experimental details should be described or cited as appropriate.

Microbial Applications of Synthetic Biology

MCB 6XXX, Fall-2018

Instructor

Dr. Christopher Reisch - creisch@ufl.edu

Microbiology and Cell and Science, Office – MCS 1162

Preferred methods for communication with the instructor regarding the course is through email.

Please resolve technical issues by contacting the UF helpdesk (e.g. http://helpdesk.ufl.edu; (352) 392-HELP (4357); *helpdesk*@ufl.edu · HUB 132).

Delivery Method/Meeting time

Online - asynchronous

Credits

3-Credit hours

Course Description

This course will introduce the concept of synthetic biology, which is loosely defined as the construction and reconstruction of biological systems, and its practical applications in research and industry. Advanced molecular biology tools for DNA assembly, the construction of biological pathways and circuits, genome editing, and strategies for transcriptional control will be examined in the course.

Course Objectives/Goals/Learning Outcomes

Students enrolled in this course will be able to:

1. Define synthetic biology and understand its importance in the 21st century.
2. Classify and analyze biological parts and their function on the systems level.
3. Describe and discuss advanced molecular biology techniques that facilitate the building of biological parts and systems.

4. Argue both sides of ethical decisions and containment strategies in synthetic biology
5. Demonstrate the ability to critically evaluate current literature in the field.
6. Rationally design experiments to investigate problems in synthetic biology and related fields.

Prerequisites

Undergraduate course in microbiology with a grade of C or better is required. An undergraduate course in biochemistry or microbial genetics is also recommended.

Course Material and Assignments

All required course materials will be available through the Canvas e-Learning site (http://elearning.ufl.edu/). Instructions for and submission of assignments will also be through Canvas.

Required Textbooks

There is no required textbook.

Required reading materials will be posted to Canvas.

Weekly Course Schedule

Date (week)	Topic	Readings
1	Introduction to Synthetic Biology, Molecular Biology, and Biochemistry	Foundations for engineering biology Endy, D. (2005). Nature, 438(7067), 449–453. A brief history of synthetic biology Cameron, D. E., Bashor, C. J., & Collins, J. J. (2014). Nature Reviews Microbiology, 12(5), 381–390.
2 - 3	Biological Parts – Promoters, Regulators, Genes, Terminators, Proteins	Design, construction and characterization of a set of insulated bacterial promoters Davis, J. H., Rubin, A. J., & Sauer, R. T. (2011). Nucleic Acids Research, 39(3), 1131–1141. Automated design of synthetic ribosome binding sites to control protein expression http://www.nature.com/nbt/journal/v27/n10/full/nbt.1568.html Salis, H. M., Mirsky, E. A., & Voigt, C. A. (2009). Nature Biotechnology, 27(10), 946–950.
4	Controlling Gene Expression and Protein Production,	Independent and tight regulation of transcriptional units in Escherichia coli via the LacR/O, the TetR/O and AraC/I1-I2 regulatory elements. 1997. R Lutz and H Bujard, Nucleic Acids Res. 25(6): 1203–1210.

5	Artificial Gene Circuits, Noise in Gene Expression, **Test 1**	Construction of a genetic toggle switch in Escherichia coli Collins, J. J., Gardner, T. S., & Cantor, C. R. (2000). Nature, 403(6767), 339–342.
6	BioSensors – Construction and Application	Synthetic biology devices for in vitro and in vivo diagnostics Slomovic, S., Pardee, K., & Collins, J. J. (2015). PNAS 112(47), 14429–14435. https://doi.org/10.1073/pnas.1508521112
7	Recombinant DNA technologies, Cloning techniques and strategies	Polymerase Chain Reaction https://en.wikipedia.org/wiki/Polymerase_chain_reaction The SLIC, Gibson, CPEC and SLiCE assembly methods (and GeneArt® Seamless, In-Fusion® Cloning) https://j5.jbei.org/j5manual/pages/22.html Enzymatic assembly of DNA molecules up to several hundred kilobases Gibson, D. G., Young, L., Chuang, R.-Y., Venter, J. C., Hutchison, C. A., & Smith, H. O. (2009). Nature Methods, 6(5), 343–345.
8 - 9	Genome Editing - Transposons, Recombinases, Zinc Fingers, TALEN's, CRISPR/Cas9	ZFN, TALEN, and CRISPR/Cas-based methods for genome engineering Gaj, T., Gersbach, C. A., & Barbas, C. F. (2013). ZFN, TALEN, and CRISPR/Cas-based methods for genome engineering. Trends in Biotechnology, 31(7), 397–405.
10	DNA synthesis and Assembly, **Test 2**	Large-scale de novo DNA synthesis: technologies and applications Kosuri, S., & Church, G. M. (2014). Large-scale de novo DNA synthesis: technologies and applications. Nature Methods, 11(5), 499–507.
11	Metabolic Engineering – Techniques and Applications,	Metabolic evolution of energy-conserving pathways for succinate production in Escherichia coli http://www.pnas.org/content/106/48/20180.full Zhang, X., Jantama, K., Moore, J. C., Jarboe, L. R., Shanmugam, K. T., & Ingram, L. O. (2009). PNAS 106(48), 20180–5. Production of the antimalarial drug precursor artemisinic acid in engineered yeast Ro. D.-K., Paradise, E. M., Ouellet, M., Fisher, K. J., Newman, K. L., Ndungu, J. M., ... Keasling, J. D. (2006). Nature, 440(7086), 940–943.
12	Accelerated Evolution Systems - MAGE, PACE,	A system for the continuous directed evolution of biomolecules Esvelt, K. M., Carlson, J. C., & Liu, D. R. (2011). Nature, 472(7344), 499–503.
13	Synthetic Cells - Recoded *E. coli* and JCVIsyn1-3.0	Genomically Recoded Organisms Expand Biological Functions

		Lajoie, M. J., Rovner, A. J., Goodman, D. B., Aerni, H.-R., Haimovich, A. D., Kuznetsov, G., ... Isaacs, F. J. (2013). Genomically Recoded Organisms Expand Biological Functions. Science, 342(6156), 357–360. Design, synthesis, and testing toward a 57-codon genome Ostrov, N., Landon, M., Guell, M., Kuznetsov, G., Teramoto, J., Cervantes, N., ... Church, G. M. (2016). Science, 353(6301), 819–822.
14	Containment strategies, Ethical considerations	Biocontainment of genetically modified organisms by synthetic protein design Mandell, D. J., Lajoie, M. J., Mee, M. T., Takeuchi, R., Kuznetsov, G., Norville, J. E., ... Church, G. M. (2015). Nature, 518(7537)

Exam Dates/Calendar/Critical dates and deadlines

Week 5 - Test 1
Week 6 - Proposal Abstracts Due
Week 9 – Proposal Outline Due
Week 10 – Test 2
Week 11 – Manuscript Presentation Due
Week 14 - Proposal Due
Final – Test 3

Exam Administration - ProctorU

All exams will be administered through ProctorU using Canvas in E-learning with students using personal computers. The exam may be taken at any location approved by ProctorU during previously announced times.
For students to sign up for a ProctorU account go to:
http://www.proctoru.com/forstudents.php

Evaluation of Learning/Grades

3 Exams (100 pts each) –	300 points
Discussion, Quizzes, Homework –	200 points
Written Proposal –	100 points

Exams

There will be 3 exams administered throughout the semester at approximately 5 week intervals. All material covered during class will be subject to testing. Tests are conceptually cumulative because understanding of topics covered early in the course will be required to understand materials covered later in the course.

Exams will be composed of multiple choice, fill in the blank, and essay questions. There will be three essay questions from each module covered and you will be required to answer all three.

Discussion, Quizzes, Homework

Quizzes – There will be a non-proctored quiz at the end of each module. The quizzes are intended to help you find out how well you know the material.

Discussion groups – The class will be divided into discussion groups of approximately 15-20 students. The purpose of the discussion group is to encourage student-student interaction and peer learning. Students are free to ask and answer questions on the discussion group. I will moderate the responses and also pose questions to facilitate the discussion. Grades will be determined by total contribution to the discussion group at the end of the semester. You will be graded on your participation only. Each module will have a separate group and each group will close after 2-3 weeks.

Homework – There will occasionally be homework assignments that will be submitted through Canvas.

Presentation of a manuscript from the primary literature

Each student will present a manuscript from the primary literature that was published within the last 5 years. The presentation will be 10-15 minutes in length and must adequately describe the methods and results conveyed in at least three figures from the manuscript or its supplemental data. Each presentation will be reviewed by two of your peers.

Proposals

Each student will be responsible for writing a research proposal that aims to investigate a novel idea in the field of synthetic biology that is of scientific or industrial interest. The proposal should be 6-8 pages single spaced. A brief rubric of the proposal is provided below.

Introduction (2 pages) – Clearly provide relevant background information in the context of research that has previously been performed in synthetic biology and fields related to your topic. At least 10 sources of primary literature must be cited (~2 pages).

Significance and Novelty (1-2 pages) – Identify the gap in knowledge that your proposal will address. Explain why this work is important to the field. What are the benefits to science and society that will result from successful completion of this work? Demonstrate that you have a deep understanding of the subject matter and its greater implications. Cite the primary literature and reviews as necessary.

Experimental Plan (3-5 pages) – Provide 3 hypothesis driven research aims that will be used to address the gap in knowledge identified above. Describe a logical workflow that will be used to investigate each aim. The purpose of the experiments should be clear, but the exact experimental conditions do not need to be provided.

Grading Policy

Final letter grades will be assigned based on the number of points earned, as follows:
A = 564-600 points
A- = 540 – 563 points
B+ = 516 – 539 points
B = 498-515 points

B- = 480-497 points
C+ = 456-479 points
C = 438-455 points
C- = 420-437 points
D+ = 396-419 points
D = 378-395 points
E = 0-377 points
More information on grades and grading policies is here:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Class Attendance and Make-Up Policy

Excused absences are consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation.

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Campus Resources

Resources are available on campus for students having personal problems or lacking clear career and academic goals, which interfere with their academic performance. These resources include:

Health and Wellness

- U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
- Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575;
- Sexual Assault Recovery Services (SARS) at the Student Health Care Center, 392-1161.
- For emergencies call: University Police Department, 392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

Academic Resources

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

- Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. http://www.crc.ufl.edu/
- Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Netiquette guide for online courses

It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette.
http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Additional comments regarding academic integrity:

Students are encouraged to discuss material with each other from the course, help each other understand concepts, study together, and even discuss assessment questions with each other once the quiz window is closed. However, the following is considered academic dishonesty, and I expect that no student will ever do any of the following:

- Have another person complete a quiz in this course

- Copy another student's quiz in this course
- Collaborate with anyone during a quiz in this course
- Discuss the questions and answers of a quiz with other students while the quiz window is still open
- Manipulate and/or distribute any materials provided in this course for any purpose (including course lecture slides).
- Use any materials provided by a previous student in the course

Software Use

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

Microsoft Office 365 Software is free for UF students

http://www.it.ufl.edu/gatorcloud/free-office-365-downloads/

Other free software is available at:

http://www.software.ufl.edu/

To check for availability of the media and technical requirements, contact the UF Computing Help Desk at (352)392-HELP(4357).

University of Florida Complaints Policy and Student Complaint Process

Most problems, questions and concerns about the course will be resolved by professionally communicating with the instructor or the TAs.

The University of Florida believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy.

If a problem really cannot be resolved by communicating with the instructor or the TAs you can contact

- Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
- Online Course: http://www.distance.ufl.edu/student-complaint-process.

University of Florida Complaints Policy and Student Complaint Process

The University of Florida and most instructors believe strongly in the ability of students to express concerns regarding their experiences at the University. Most problems, questions and concerns about courses can be resolved by professionally communicating with the instructor. Please try to meet your instructor in person, make an appointment to call, or try to set up a remote meeting through Skype or other media.

If this does not help the University encourages the students who wish to file a written complaint to submit that complaint directly to the department that manages that course. If a problem really persists and cannot be resolved by communicating with the instructor and the department, contact... for
Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
Online Course: http://www.distance.ufl.edu/student-complaint-process

This said, professionalism is a two-way-street. Unprofessional behavior of students includes, among other things: lack of communication, blaming other people or external factors, lying, affecting others negatively in a group or in the class, not accepting criticism and not being proactive in solving problems or seeking help. Furthermore, faculty often have family and other obligations to tend to. Over the weekend, replies to your inquiries or questions may be delayed.

If a student is lacking professionalism repeatedly, the instructor has the rights to file formal complaint against the student through the Dean of Student office.

(8)

Cover Sheet: Request 11708

Approval of new course: MCB Synthetic Biology Recycled

Info

Process	Course|New|Ugrad/Pro
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Monika Oli moli@ufl.edu
Created	6/15/2017 9:59:59 AM
Updated	9/12/2018 2:51:43 PM
Description of request	Approval of new course: Microbial Applications of Synthetic Biology - MCB 4xxx

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		6/15/2017
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Email sent to submitter with comments.	8/31/2017
No document changes					
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		12/12/2017
Reisch UCC consults.pdf					8/31/2017
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	This request has been recycled by the CALS CC. Needed corrections were sent to the submitter on 1/29/18.	2/7/2018
No document changes					
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		3/9/2018
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Recycled by CALS Curriculum Committee. Comments will be sent to submitter.	5/7/2018
No document changes					
Department	Approved	CALS - Microbiology and Cell Science 514910000	Eric Triplett		8/8/2018
No document changes					
College	Pending	CALS - College of Agricultural and Life Sciences			8/8/2018
No document changes					
University Curriculum Committee					
No document changes					

Step	Status	Group	User	Comment	Updated
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Course|New for request 11708

Info

Request: Approval of new course: MCB Synthetic Biology
Description of request: Approval of new course: Microbial Applications of Synthetic Biology - MCB 4xxx
Submitter: Monika Oli moli@ufl.edu
Created: 9/26/2018 1:36:41 PM
Form version: 2

Responses

Recommended Prefix MCB
Course Level 4
Number xxx
Category of Instruction Joint (Ugrad/Grad)
Lab Code None
Course Title Microbial Applications of Synthetic Biology
Transcript Title Microbe Synthetic Bio
Degree Type Baccalaureate

Delivery Method(s) Online, UF Online - Please attach a letter of support from the Director of the UF Online program
Co-Listing Yes
Co-Listing Explanation The differences of the undergraduate and graduate course are outlined in a separate document
Effective Term Earliest Available
Effective Year Earliest Available
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 3

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 3
Course Description Synthetic biology is the the construction and reconstruction of biological systems, and its practical applications in research and industry. Advanced molecular biology tools for DNA assembly, the construction of biological pathways and circuits, genome editing, and strategies for transcriptional control will be examined in the course.

Prerequisites MCB 3020 or 3023
Co-requisites N/A
Rationale and Placement in Curriculum This course is an important addition to our curriculum, explaining the most current technologies to our students. None of the other course cover the topics discussed in this class.
Course Objectives 1. Define synthetic biology and understand its importance in the 21st century.
2. Classify and analyze biological parts and their function on the systems level.
3. Describe and discuss advanced molecular biology techniques that facilitate the building of biological parts and systems.
4. Argue both sides of ethical decisions and containment strategies in synthetic biology
5. Demonstrate the ability to critically evaluate current literature in the field.
6. Rationally design experiments to investigate problems in synthetic biology and related fields.

Course Textbook(s) and/or Other Assigned Reading N/A

Primary papers and literature are listed week by week
Weekly Schedule of Topics Date (week)
Topic

1
Introduction to Synthetic Biology, Molecular Biology, and Biochemistry

2 - 3
Biological Parts – Promoters, Regulators, Genes, Terminators, Proteins

4
Controlling Gene Expression and Protein Production,

5
Artificial Gene Circuits, Noise in Gene Expression, Test 1

6
BioSensors – Construction and Application

7
Recombinant DNA technologies, Cloning techniques and strategies

8 - 9
Genome Editing - Transposons, Recombinases, Zinc Fingers, TALEN's, CRISPR/Cas9

10
DNA synthesis and Assembly, Test 2

11
Metabolic Engineering – Techniques and Applications,

12
Accelerated Evolution Systems - MAGE, PACE,

13
Synthetic Cells - Recoded E. coli and JCVIsyn1-3.0

14
Containment strategies, Ethical considerations

Links and Policies Class Attendance and Make-Up Policy
Consequences for missing exams and submission deadlines are consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation.
Students Requiring Accommodations
Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.
Campus Resources
Resources are available on campus for students having personal problems or lacking clear career and academic goals, which interfere with their academic performance. These resources include:

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- U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
- Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575;
- Sexual Assault Recovery Services (SARS) at the Student Health Care Center, 392-1161.
- For emergencies call: University Police Department, 392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

Academic Resources
- E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-

support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

- Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. http://www.crc.ufl.edu/
- Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Class demeanor

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

Netiquette guide for online courses

It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette.
http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Additional comments regarding academic integrity:

Students are encouraged to discuss material with each other from the course, help each other understand concepts, study together, and even discuss assessment questions with each other once the quiz window is closed. However, the following is considered academic dishonesty, and I expect that no student will ever do any of the following.

- Have another person complete a quiz in this course
- Copy another student's quiz in this course
- Collaborate with anyone during a quiz in this course
- Discuss the questions and answers of a quiz with other students while the quiz window is still open
- Manipulate and/or distribute any materials provided in this course for any purpose (including course lecture slides).
- Use any materials provided by a previous student in the course

Software Use

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

Microsoft Office 365 Software is free for UF students
http://www.it.ufl.edu/gatorcloud/free-office-365-downloads/
Other free software is available at:
http://www.software.ufl.edu/

To check for availability of the media and technical requirements, contact the UF Computing Help Desk at (352)392-HELP(4357).

University of Florida Complaints Policy and Student Complaint Process

Most problems, questions and concerns about the course will be resolved by professionally communicating with the instructor or the TAs.

The University of Florida believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy.

If a problem really cannot be resolved by communicating with the instructor or the TAs you can contact
- Residential Course:

https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
- Online Course: http://www.distance.ufl.edu/student-complaint-process.

University of Florida Complaints Policy and Student Complaint Process

The University of Florida and most instructors believe strongly in the ability of students to express concerns regarding their experiences at the University. Most problems, questions and concerns about courses can be resolved by professionally communicating with the instructor. Please try to meet your instructor in person, make an appointment to call, or try to set up a remote meeting through Skype or other media.
If this does not help the University encourages the students who wish to file a written complaint to submit that complaint directly to the department that manages that course. If a problem really persists and cannot be resolved by communicating with the instructor and the department chair.
Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
Online Course: http://www.distance.ufl.edu/student-complaint-process

This said, professionalism is a two-way-street. Unprofessional behavior of students includes, among other things: lack of communication, blaming other people or external factors, lying, affecting others negatively in a group or in the class, not accepting criticism and not being proactive in solving problems or seeking help. Furthermore, faculty often have family and other obligations to tend to. Over the weekend, replies to your inquiries or questions maybe delayed.
If a student is lacking professionalism repeatedly, the instructor has the rights to file formal complaint against the student through the Dean of Student office.

Grading Scheme Evaluation of Learning/Grades

3 Exams (100 pts each) –	300 points
Discussion, Quizzes, Homework –	200 points
Written Proposal –	100 points

Exams
There will be 3 exams administered throughout the semester at approximately 5 week intervals. All material covered during class will be subject to testing. Tests are conceptually cumulative because understanding of topics covered early in the course will be required to understand materials covered later in the course.
Discussion, Quizzes, Homework
Throughout the semester there will be quizzes, discussions, and homework assigned for grades that will total 200 points.
Proposals
Each student will be responsible for writing a research proposal that aims to investigate a novel idea in the field of synthetic biology that is of scientific or industrial interest. The proposal for students in the 4xxx level course will be 3 pages single-spaced, while the 6xxx level students are expected to write 6 pages with more detailed experimental approaches. Grading rubrics will be provided in class.
Grading Policy
Final letter grades will be assigned based on the number of points earned, as follows:
A = 470-500 points
A- = 450 – 469 points
B+ = 435 – 449 points
B = 415-434 points
B- = 400-414 points
C+ = 385-399 points
C = 365-384 points
C- = 350-364 points
D+ = 330-349 points
D = 300-329 points

E = 0-299 points
More information on grades and grading policies is here:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Instructor(s) Dr. Christopher Reisch - creisch@ufl.edu

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
Agricultural and Biological Engineering	Dorota Z. Haman - Professor and Chair
Phone Number	**E-mail**
(352) 392-1864 ext 120	dhaman@ufl.edu

Comments

Please see attached email correspondence. Dr. Haman identified two courses with the potential for minor overlap, but she was happy that the course would be offered at UF.

Department	Name and Title
Molecular Genetics and Microbiology	Henry V. Baker, Professor and Chair
Phone Number	**E-mail**
(352) 273-5935	baker@mgm.ufl.edu

Comments

Dr. Baker saw no potential overlap and believed that the course would complement existing courses in MGM.

Department	Name and Title
Biochemistry and Molecular Biology	James Flanegan, Professor and Chair
Phone Number	**E-mail**
(352) 294-8384	flanegan@ufl.edu

Comments

See attached correspondence. Dr. Flanegan and Dr. Tom Yang found a "relatively small amount of overlap" with courses in BMB, though the overlap is not a concern to the department.

UF UNIVERSITY of FLORIDA

UCC: External Consultations

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
Biology	Prof. Marta Wayne
Phone Number	**E-mail**
352-392-9925	mlwayne@ufl.edu

Comments

The Department of Biology is also offering a course on synthetic biology taught by Dr. Ed Braun. Dr. Braun and I have been in contact and aim to make the two courses complementary and not competing. See the attached correspondance for details on the the specifics of each course.

Department	Name and Title
Phone Number	**E-mail**

Comments

Department	Name and Title
Phone Number	**E-mail**

Comments

Re: External Consult for MCS course

Pullammanappallil,Pratap C

Wed 3/1/2017 6:36 PM

To:Haman,Dorota Zofia <dhaman@ufl.edu>; Chris Reisch [redacted]

Hi Chris
The Applied Microbiology and Biotechnology covers industrial fermentation and wastewater treatment applications of biotechnology. The focus is on the process engineering aspects along with mathematical modeling of processes. So I do not see any overlap with your proposed course.
I will be recommending your Synthetic Biology course to my graduate students.

Best Regards
Pratap

From: Dorota Haman <dhaman@ufl.edu>
Date: Wednesday, March 1, 2017 at 12:35 PM
To: Chris Reisch <creisch@ufl.edu>
Cc: "Correll,Melanie J" <correllm@ad.ufl.edu>, Pratap Pullammanappallil <pcpratap@ufl.edu>
Subject: Re: External Consult for MCS course

Chris,
Pratap Pullammanappallil is teaching ABE4600 and as far as I know, he does not teach synthetic biology in it. I have copied him on this email. Melanie Correll is also very interested in your class – she talked about synthetic biology in her class and works with a team of students on synthetic biology competitions. I also copied her on this email. These are two faculty members that you may want to talk to. I am glad to see this class being developed at UF.
Dorota

Dr. Dorota Z. Haman
Professor and Chair
Agricultural and Biological Engineering
120 Rogers Hall
PO Box 110570
University of Florida
Gainesville FL 32611-0570

Tel: (352) 392-1864 ext 120
Fax: (352) 392-4092
email:dhaman@ufl.edu
http://abe.ufl.edu/

From: Chris Reisch <creisch@ufl.edu>
Date: Wednesday, March 1, 2017 at 10:18 AM
To: Dorota Haman <dhaman@ufl.edu>
Subject: External Consult for MCS course

Hi Dr. Haman,

I'm developing a 4000/6000 level course in synthetic biology that will be listed in Microbiology and Cell Sciences and need to get external consultations for potential course overlap. The course will focus on techniques and microbial applications of synthetic biology including, methods for transcriptional and transnational control of gene expression, genome evolution and editing, metabolic engineering, and synthetic cell creation. I was specifically concerned about overlap with ABE4603 Applied Microbial Biotechnology. Is the course still being taught and is there a faculty member that I should contact for consultation? I've attached a draft of the syllabus for your reference.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1146
University of Florida

FW: External Consult for MCS course

Flanegan,James B

Thu 3/23/2017 12:04 PM

To:Chris Reisch <creisch@ufl.edu>;

Cc:Yang,Thomas P <tpyang@ufl.edu>; Triplett,Eric <ewt@ufl.edu>;

Dear Chris,

I asked Dr. Tom Yang to look at your new course for potential overlap with courses in our department. I agree with Dr. Yang's assessment that the relatively small amount of overlap with our courses is not a concern to our department. Let me know if you have any additional questions.

Bert

James B. Flanegan, Ph.D.
Professor and Chair
Department of Biochemistry & Molecular Biology
College of Medicine
University of Florida
flanegan@ufl.edu
(352) 294-8384 (office)

From: Yang,Thomas P
Sent: Wednesday, March 22, 2017 8:55 AM
To: Flanegan,James B <flanegan@UFL.EDU>
Subject: Re: External Consult for MCS course

Bert
There appears to be a bit of overlap in course content but nothing that really concerns me. The emphasis of this new course is so different than ours that it really appears to be a different course.
Tom

On Mar 21, 2017, at 5:45 PM, "Flanegan,James B" <flanegan@UFL.EDU> wrote:

> Tom,
>
> Please look at this and let me know if you think that there is potential overlap with BCH 6415 or BCH 5413. If there is overlap, is it significant enough for us to be "concerned" about it.
>
> Thanks,
>
> Bert

From: Chris Reisch
Sent: Monday, March 20, 2017 1:18 PM
To: Flanegan,James B <flanegan@UFL.EDU>
Subject: External Consult for MCS course

Hi James,

I'm developing a 4000/6000 level course in synthetic biology that will be listed in Microbiology and Cell Sciences and I need to get external consultations for potential course overlap from Department Chairs. The course will focus on techniques and prokaryotic applications of synthetic biology, including; methods for transcriptional and translational control of gene expression, genome evolution and editing, metabolic engineering, and synthetic cell creation. I think there will be minor overlap with BCH 6415 - Advanced Molecular and Cell Biology. I've attached a draft of the syllabus for your reference. Please let me know if you have concern about overlap with this, or any other course offered in BCH.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1152
University of Florida

<Reisch UF synbio syllabus -1.docx>

RE: External consult for MCS course

Baker,Henry V

Tue 3/28/2017 10:53 AM

To:Chris Reisch <creisch@ufl.edu>;

Dear Dr. Reisch,

Thank you for giving me the opportunity to review your proposed syllabus. From the perspective of the department of molecular genetics and microbiology we do not see a potential conflict with your proposed course and the courses we offer. In fact we believe that your course is complementary to some of our offerings and we wish you luck with getting it launched.

Kindest regards,

Henry V. Baker, Ph.D.
Hazel Kitzman Professor of Genetics
Professor of Surgery
Chair, Dept. Molecular Genetics and Microbiology
University of Florida College of Medicine
Associate Director University of Florida Genetics Institute

From: Chris Reisch
Sent: Tuesday, March 28, 2017 10:45 AM
To: Baker,Henry V <hvbaker@UFL.EDU>
Subject: External consult for MCS course

Dear Dr. Baker,

I'm developing a 4000/6000 level course in synthetic biology that will be listed in Microbiology and Cell Sciences and I need to get external consultations for potential course overlap from Department Chairs. The course will focus on techniques and prokaryotic applications of synthetic biology, including; methods for transcriptional and translational control of gene expression, genome evolution and editing, metabolic engineering, and synthetic cell creation. I have attached a draft of the syllabus for your reference. Please let me know if you have concern about overlap with any course in MBM.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1152
University of Florida

Re: external consult for MCB

Wayne,Marta L

Fri 8/18/2017 10:38 AM

To:Chris Reisch <creisch@ufl.edu>;

Cc:Braun,Edward Louis <ebraun68@ufl.edu>;

Dear Chris,

Many thanks! I am really pleased that you and Ed are working together to make complementary courses. I would like to see the two proposals go forward together so that they appear at UCC simultaneously and consults are signed off by Micro and Bio simultaneously as well, so I am cc'ing Ed here and asking him to move forward getting a proposal together. Ed, I think that Tangelyn would be happy to help you if you will just provide her with a syllabus.

Cheers,
Marta

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Marta L. Wayne, Ph. D.
Professor and Chair
P.O. Box 118525
Department of Biology
University of Florida
Gainesville, FL 32611-8525
(courier: 876 Newell Drive)
vox: 352-392-9925
fax: 352-392-3704
http://people.biology.ufl.edu/mlwayne/

> On Aug 17, 2017, at 5:09 PM, Chris Reisch <creisch@ufl.edu> wrote:
>
> Hi Dr. Wayne,
>
> I'm teaching a course in synthetic biology in the department of microbiology and cell science and need to get an external consult from Biology. Ed Braun and I have communicated and plan on making our two courses complimentary, not competing. Below is a brief explanation of the two courses and how they will be different. I've also attached a draft of my syllabus. Hopefully this is satisfactory, let me know what you think.
>
> The proposed course "Microbial Applications of Synthetic Biology," currently being offered by Dr. Christopher Reisch as MCB 4934, will not overlap in any significant way with another course in the same general field that I am developing in the Department of Biology. The Microbiology and Cell Science course and the Biology course have distinct foci, formats, and target audiences. Specifically, the course proposed by Dr. Reisch is heavily focused on methods used in synthetic biology in microbiology and it is an online course. In contrast, the Biology course is focused on conceptual issues associated with the use of synthetic biology to understand minimal genomes and it will be a face-to-face course with student projects.
> Dr. Reisch and I have discussed our courses and both of us feel that we will not be competing for students. Given these clear delineation between the courses students that would like to focus on the details of methodology will be best served by Dr. Reisch's course whereas those focused on

understanding issues of building minimal genomes will be best served by my course. Obviously, there may be some students that will wish to take both courses. However, the differences between our courses mean that students will have complementary experiences.

Best,
Chris

Christopher R. Reisch
Assistant Professor
Department of Microbiology and Cell Science
1355 Museum Road, Room 1152
University of Florida
<Reisch UF synbio syllabus 4.docx>

Microbial Applications of Synthetic Biology
Differences between 4XXX and 6XXX level courses

- Exams – There will be three exams composed of multiple choice, fill in the blank, and essay questions that cover two or three modules of the course. There will be three essay questions per module and **students in 4963 will only be required to answer one of the three questions per module. Students in MCB6937 will be required to answer all essay questions, requiring a more thorough understanding of the material**. Accordingly, the point value of questions will be different for the two courses, with more points derived from the essay questions for the graduate level.
- Presentation of a manuscript from the primary literature (6XXX level only) – Students enrolled in the graduate section will be required to present a manuscript from synthetic biology literature published within the past 3 years. Presentations will be about 15 minutes in length and clearly demonstrate that the student understands the purpose, experimental design, and advancement in knowledge gained from the manuscript. Students will then peer review the presentations of two other students in the course.
- Proposals - Each student will be responsible for writing a research proposal that aims to investigate a novel idea in the field of synthetic biology that is of scientific or industrial interest. The proposals from students enrolled in the graduate course must be longer and have 3 hypothesis driven research objectives. The rubrics for each course are below.

MCB 4934

Introduction (1 page) – Clearly provide relevant background information to provide context of research that has previously been performed in synthetic biology and fields related to your topic. At least 5 sources of primary research papers or literature reviews must be cited.

Significance and Novelty (0.5-1 page) – Identify the gap in knowledge that your proposal will address. Explain why this work is important to the field. What are the benefits to science and society that will result from successful completion of this work? Demonstrate that you understand the subject matter and its greater implications. Cite the primary literature and reviews as necessary.

Experimental Plan (1-2 pages) – Describe 1 research aim that will be used to address the gap in knowledge identified above. Provide a logical workflow that will be used to investigate the research question. The purpose of the experiments should be clear, but the exact experimental conditions do not need to be provided.

MCB 6937

Introduction (2 pages) – Clearly provide relevant background information in the context of research that has previously been performed in synthetic biology and fields related to your topic. At least 10 sources of primary literature must be cited.

Significance and Novelty (1-2 pages) – Identify the gap in knowledge that your proposal will address. Explain why this work is important to the field. What are the benefits to science and society that will result from successful completion of this work? Demonstrate that you have a deep understanding of the subject matter and its greater implications. Cite the primary literature and reviews as necessary.

Experimental Plan (3-5 pages) – Provide 3 hypothesis driven research aims that will be used to address the gap in knowledge identified above. Describe a logical workflow that will be used to investigate each aim. The purpose of the experiments should be clear, and the experimental details should be described or cited as appropriate.

Microbial Applications of Synthetic Biology

MCB 4xxx, Fall-2018

Instructor

Dr. Christopher Reisch - creisch@ufl.edu

Microbiology and Cell and Science, Office – MCS 1162

Preferred methods for communication with the instructor regarding the course is through email.

Please resolve technical issues by contacting the UF helpdesk (e.g. http://helpdesk.ufl.edu; (352) 392-HELP (4357); *helpdesk*@ufl.edu · HUB 132).

Delivery Method/Meeting time

Online (asynchronous)

Credits

3-Credit hours

Course Description

This course will introduce the concept of synthetic biology, which is loosely defined as the construction and reconstruction of biological systems, and its practical applications in research and industry. Advanced molecular biology tools for DNA assembly, the construction of biological pathways and circuits, genome editing, and strategies for transcriptional control will be examined in the course.

Course Objectives/Goals/Learning Outcomes

Students enrolled in this course will be able to:

1. Define synthetic biology and understand its importance in the 21st century.
2. Classify and analyze biological parts and their function on the systems level.
3. Describe and discuss advanced molecular biology techniques that facilitate the building of biological parts and systems.

4. Argue both sides of ethical decisions and containment strategies in synthetic biology

Prerequisites

MCB 3020 or 3023 with a grade of C or better. An undergraduate course in biochemistry or microbial genetics is also recommended.

Course Material and Assignments

All required course materials will be available through the Canvas e-Learning site (http://elearning.ufl.edu/). Instructions for and submission of assignments will also be through Canvas.

Required Textbooks

There is no required textbook.

Required reading materials will be posted to Canvas.

Weekly Course Schedule

Date (week)	Topic	Readings
1	Introduction to Synthetic Biology, Molecular Biology, and Biochemistry	Foundations for engineering biology Endy, D. (2005). Nature, 438(7067), 449–453. A brief history of synthetic biology Cameron, D. E., Bashor, C. J., & Collins, J. J. (2014). Nature Reviews Microbiology, 12(5), 381–390.
2 - 3	Biological Parts – Promoters, Regulators, Genes, Terminators, Proteins	Design, construction and characterization of a set of insulated bacterial promoters Davis, J. H., Rubin, A. J., & Sauer, R. T. (2011). Nucleic Acids Research, 39(3), 1131–1141. Automated design of synthetic ribosome binding sites to control protein expression http://www.nature.com/nbt/journal/v27/n10/full/nbt.1568.html Salis, H. M., Mirsky, E. A., & Voigt, C. A. (2009). Nature Biotechnology, 27(10), 946–950.
4	Controlling Gene Expression and Protein Production,	Independent and tight regulation of transcriptional units in Escherichia coli via the LacR/O, the TetR/O and AraC/I1-I2 regulatory elements. 1997. R Lutz and H Bujard, Nucleic Acids Res. 25(6): 1203–1210.
5	Artificial Gene Circuits, Noise in Gene Expression,	Construction of a genetic toggle switch in Escherichia coli Collins, J. J., Gardner, T. S., & Cantor, C. R. (2000). Nature, 403(6767), 339–342.

	Test 1	
6	BioSensors – Construction and Application	Synthetic biology devices for in vitro and in vivo diagnostics Slomovic, S., Pardee, K., & Collins, J. J. (2015). PNAS 112(47), 14429–14435. https://doi.org/10.1073/pnas.1508521112
7	Recombinant DNA technologies, Cloning techniques and strategies	Polymerase Chain Reaction [illegible]/wiki/Polymerase_chain_reaction The SLIC, Gibson, CPEC and SLiCE assembly methods (and GeneArt® Seamless, In-Fusion® Cloning) [illegible]/5manual/pages/22.html Enzymatic assembly of DNA molecules up to several hundred kilobases Gibson, D. G., Young, L., Chuang, R.-Y., Venter, J. C., Hutchison, C. A., & Smith, H. O. (2009). Nature Methods, 6(5), 343–345.
8 - 9	Genome Editing - Transposons, Recombinases, Zinc Fingers, TALEN's, CRISPR/Cas9	ZFN, TALEN, and CRISPR/Cas-based methods for genome engineering Gaj, T., Gersbach, C. A., & Barbas, C. F. (2013). ZFN, TALEN, and CRISPR/Cas-based methods for genome engineering. Trends in Biotechnology, 31(7), 397–405.
10	DNA synthesis and Assembly, **Test 2**	Large-scale de novo DNA synthesis: technologies and applications Kosuri, S., & Church, G. M. (2014). Large-scale de novo DNA synthesis: technologies and applications. Nature Methods, 11(5), 499–507.
11	Metabolic Engineering – Techniques and Applications,	Metabolic evolution of energy-conserving pathways for succinate production in Escherichia coli http://www.pnas.org/content/106/48/20180.full Zhang, X., Jantama, K., Moore, J. C., Jarboe, L. R., Shanmugam, K. T., & Ingram, L. O. (2009). PNAS 106(48), 20180–5. Production of the antimalarial drug precursor artemisinic acid in engineered yeast Ro, D.-K., Paradise, E. M., Ouellet, M., Fisher, K. J., Newman, K. L., Ndungu, J. M., ... Keasling, J. D. (2006). Nature, 440(7086), 940–943.
12	Accelerated Evolution Systems - MAGE, PACE,	A system for the continuous directed evolution of biomolecules Esveit, K. M., Carlson, J. C., & Liu, D. R. (2011). Nature, 472(7344), 499–503.
13	Synthetic Cells - Recoded *E. coli* and JCVIsyn1-3.0	Genomically Recoded Organisms Expand Biological Functions Lajoie, M. J., Rovner, A. J., Goodman, D. B., Aerni, H.-R., Haimovich, A. D., Kuznetsov, G., ... Isaacs, F. J. (2013). Genomically Recoded Organisms Expand Biological Functions. Science, 342(6156), 357–360.

		Design, synthesis, and testing toward a 57-codon genome Ostrov, N., Landon, M., Guell, M., Kuznetsov, G., Teramoto, J., Cervantes, N., ... Church, G. M. (2016). Science, 353(6301), 819–822.
14	Containment strategies, Ethical considerations	Biocontainment of genetically modified organisms by synthetic protein design Mandell, D. J., Lajoie, M. J., Mee, M. T., Takeuchi, R., Kuznetsov, G., Norville, J. E., ... Church, G. M. (2015). Nature, 518(7537)

Exam Dates/Calendar/Critical dates and deadlines

Week 5 - Test 1
Week 6 - Proposal Abstracts Due
Week 9 – Proposal Outline Due
Week 10 – Test 2
Week 14 - Proposal Due
Final – Test 3

Exam Administration - ProctorU

All exams will be administered through ProctorU using Canvas in E-learning with students using personal computers. The exam may be taken at any location approved by ProctorU during previously announced times.
For students to sign up for a ProctorU account go to:
http://www.proctoru.com/forstudents.php

Evaluation of Learning/Grades

3 Exams (100 pts each) –	300 points
Discussion, Quizzes, Homework –	200 points
Written Proposal –	100 points

Exams

There will be 3 exams administered throughout the semester at approximately 5 week intervals. All material covered during class will be subject to testing. Tests are conceptually cumulative because understanding of topics covered early in the course will be required to understand materials covered later in the course.

Exams will be composed of multiple choice, fill in the blank, and essay questions. There will be three essay questions from each module and you will be required to answer one question from each module.

Discussion, Quizzes, Homework

Throughout the semester there will be quizzes, discussions and homework assignments that will total 200 points.

Proposals

Each student will be responsible for writing a research proposal that aims to investigate a novel idea in the field of synthetic biology that is of scientific or industrial interest. The proposal should be 6-8 pages single spaced. A brief rubric of the proposal is provided below.

Introduction (1 page) – Clearly provide relevant background information in the context of research that has previously been performed in synthetic biology and fields related to your topic. At least 5 sources of primary research papers or literature reviews must be cited.

Significance and Novelty (0.5-1 page) – Identify the gap in knowledge that your proposal will address. Explain why this work is important to the field. What are the benefits to science and society that will result from successful completion of this work? Demonstrate that you understand the subject matter and its greater implications. Cite the primary literature and reviews as necessary.

Experimental Plan (1-2 pages) – Describe 1 research aim that will be used to address the gap in knowledge identified above. Provide a logical workflow that will be used to investigate the research question. The purpose of the experiments should be clear, but the exact experimental conditions do not need to be provided.

Grading Policy

Final letter grades will be assigned based on the number of points earned, as follows:
A = 564-600 points
A- = 540 – 563 points
B+ = 516 – 539 points
B = 498-515 points
B- = 480-497 points
C+ = 456-479 points
C = 438-455 points
C- = 420-437 points
D+ = 396-419 points
D = 378-395 points
E = 0-377 points
More information on grades and grading policies is here:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Class Attendance and Make-Up Policy

Excused absences are consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation.

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing

appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Campus Resources

Resources are available on campus for students having personal problems or lacking clear career and academic goals, which interfere with their academic performance. These resources include:

Health and Wellness

- U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
- Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575;
- Sexual Assault Recovery Services (SARS) at the Student Health Care Center, 392-1161.
- For emergencies call: University Police Department, 392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

Academic Resources

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.
- Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. http://www.crc.ufl.edu/
- Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Netiquette guide for online courses

It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette.
http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Additional comments regarding academic integrity:

Students are encouraged to discuss material with each other from the course, help each other understand concepts, study together, and even discuss assessment questions with each other once the quiz window is closed. However, the following is considered academic dishonesty, and I expect that no student will ever do any of the following:

- Have another person complete a quiz in this course
- Copy another student's quiz in this course
- Collaborate with anyone during a quiz in this course
- Discuss the questions and answers of a quiz with other students while the quiz window is still open
- Manipulate and/or distribute any materials provided in this course for any purpose (including course lecture slides).
- Use any materials provided by a previous student in the course

Software Use

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

Microsoft Office 365 Software is free for UF students

http://www.it.ufl.edu/gatorcloud/free-office-365-downloads/

Other free software is available at:

http://www.software.ufl.edu/

To check for availability of the media and technical requirements, contact the UF Computing Help Desk at (352)392-HELP(4357).

University of Florida Complaints Policy and Student Complaint Process

Most problems, questions and concerns about the course will be resolved by professionally communicating with the instructor or the TAs.

The University of Florida believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy.

If a problem really cannot be resolved by communicating with the instructor or the TAs you can contact

- Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
- Online Course: http://www.distance.ufl.edu/student-complaint-process.

University of Florida Complaints Policy and Student Complaint Process

The University of Florida and most instructors believe strongly in the ability of students to express concerns regarding their experiences at the University. Most problems, questions and concerns about courses can be resolved by professionally communicating with the instructor. Please try to meet your instructor in person, make an appointment to call, or try to set up a remote meeting through Skype or other media.

If this does not help the University encourages the students who wish to file a written complaint to submit that complaint directly to the department that manages that course. If a problem really persists and cannot be resolved by communicating with the instructor and the department, contact... for
Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
Online Course: http://www.distance.ufl.edu/student-complaint-process

This said, professionalism is a two-way-street. Unprofessional behavior of students includes, among other things: lack of communication, blaming other people or external factors, lying, affecting others negatively in a group or in the class, not accepting criticism and not being proactive in solving problems or seeking help. Furthermore, faculty often have family and other obligations to tend to. Over the weekend, replies to

your inquiries or questions may be delayed.

If a student is lacking professionalism repeatedly, the instructor has the rights to file formal complaint against the student through the Dean of Student office.