

Applied Field Crop Production

AGR 4214c

Agronomy Department

University of Florida

Spring 2017

Instructor:	Greg MacDonald Office - 2059 McCarty Hall-D Email – pineacre@ufl.edu Office phone – 352-294-1594
Class Schedule:	Monday, Wednesday, Friday - Period 3 (9:35-10:25)
Location:	McCarty Hall B – Room 3108
Course Website:	None – course material will be provided in class and via email
Course Description:	This <u>3 credit</u> course will provide students with a better appreciation of and competencies needed for a fundamental understanding of production cropping systems. Students will gain basic knowledge of the major food crops (biology, production, utilization), and the climatic zones where differing cropping systems are utilized. This course will have a combination of lecture, field trips and hands-on projects. Topics covered will include: tillage systems and equipment, rotations, soils and fertility management, irrigation management, crop growth and development, pest management, abiotic stresses, yield potential, genetics and biotech, crop planting through maturity and decision making/economics.
Course Objective:	The objective of this course is to provide students with a foundational understanding of large scale crop production and the major crops grown for food, fiber and fuel.
Office Hours:	By appointment – send email or see me after class to schedule a time.
Class Attendance:	Attendance is not mandatory for all lectures but students must be present for discussions of papers, presentations and guest lecturers as a portion of your grade will be based on participation.
Textbooks:	No textbook required but students will be provided with assigned readings from various sources including websites, journal articles, and extension publications.

Assessments and Grading: In class quizzes 9 @ 9% each); cropping systems profile (12%); class participation (7%). Exam dates are indicated in the Course Topical Outline section of this syllabus. Quiz questions will come from in class readings, lecture notes, and discussions.

Course Grading Scale: For University of Florida grading policy see:
<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

The following grading scale will be used in this class.

A=100-90%	B+=89.9-87%
B=86.9-80%	C+=79.9-77%
C=76.9-70%	D+=69.9-67%
D=66.9-60%	E<60%

Electronic Device policy: The use by students of cellular telephones, messaging devices and other electronic devices during lecture and labs is prohibited. In class, students are required to put phones and messaging on silent mode and turn off other devices. All electronic devices must be stowed in a backpack or equivalent during class.

University of Florida Student Honor Code (Rule 6C1-4.017): When you enroll at the University of Florida you pledge to hold yourself and your peers to the standards of high honor required by the student honor code. You are expected to uphold your pledge to honesty and integrity in class. Academic misconduct in any form will not be tolerated. University of Florida procedures will be followed to discipline offenders. There will be no warnings and sanctions will occur on the first offense. Visit: <http://regulations.ufl.edu/chapter4/4017.pdf> to read the Student Honor Code, learn about conduct that constitutes academic dishonesty, and sanctions. As a result of completing the registration form at the University of Florida, every student has signed the following statement: *"I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the university."*

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

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.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,
www.counseling.ufl.edu/cwc/
Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library
Training Programs, Community Provider Database
Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/

Students with Disabilities Act:

The Dean of Students Office coordinates the needed accommodations of students with disabilities. This includes the registration of disabilities, academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faulty-student disability related issues. Dean of Students Office, 202 Peabody Hall, 392-7066, www.dso.ufl.edu.

**General Outline and Class Schedule for
Applied Crop Production**

<u>Lecture Topic</u>	<u>Date(s)**</u>
Introductions, overview of syllabus, fill out information cards	January 4
Defining crops, history of agriculture	January 6, 9
Overview of crop production in Florida, U.S. and Global	January 9, 11
Quiz 1	January 13
Martin Luther King, Jr. Day – no classes	January 16
Review of plant growth, structure, development, etc.	January 18
Soils 101 and Fertility Management	January 20
No Class – Dr. MacDonald at conference	January 23
Quiz 2 – proctored by Will Dezern	January 25
Tillage and Implements	January 27, 30
FIELD TRIP to PLANT SCIENCE FARM	February 1
The processes of crop growth from seed to seed	February 3
Quiz 3	February 6

All things water – drought, flooding and irrigation	February 6, 8
Quiz 4	February 10
Abiotic stresses	February 10, 13
Pests, pest management, resistance	February 15, 17
Quiz 5	February 20
Crops – Cereals/Small Grains	February 20
FIELD TRIP to PLANT SCIENCE FARM	February 22
Crop – Cereals/Small Grains, cont'd	February 24
Crops - Soybean	February 27
Crops – Corn, Sorghum, Millets, etc.	March 1, 3
Quiz 6	March 3
Spring Break - no class	March 6 – March 10
Crops – Sugar	March 13
Crops – Rice (Guest Lecturer – Haley Sater)	March 15, 17
Crops – Peanuts and Cotton (Guest Lecturer – Dr. Jay Ferrell)	March 20, 22
Quiz 7 - Proctored	March 24
Crops – other legumes	March 27
FIELD TRIP to PLANT SCIENCE FARM	March 29
Crops – Forages	March 31
Crops – Potatoes, sweet potatoes	April 3
Quiz 8	April 5

Crops – Sunflowers, Flax, Sesame	April 5
Crops – Biofuels	April 7
Crops – Miscellaneous	April 7, 10
FIELD TRIP to PLANT SCIENCE FARM	April 12
Quiz 9	April 14
Crop Production – field to market, pulling it together	April 14
Presentations	April 17, 19

Name_____

Crop Assignment – Field Day Demonstration

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For this assignment you will be playing the role of an extension agronomist at a field day demonstration. This 'event' will take place in the classroom on **April 17 and 19th** and you will be asked to provide information about your crop to your 'farmers'.

Things to include:

- 1) Varieties – include differing maturities, where you will get seed, can you save seed?_____
- 2) Fertility requirements – low and high input systems_____
- 3) Plant density – seeding rate, row spacing_____
- 4) Tillage requirements_____
- 5) Weed control – options, how long, etc._____
- 6) Other pest management – insects, diseases, etc._____
- 7) Harvesting – when, how_____
- 8) Storage options, processing – if any_____
- 9) Marketing and/or utilization_____
- 10) anything else....._____

You can choose where in Florida your crop to be grown, and you will be introducing your crop as a new crop to the region. That being said, companion crops for that region might be included in your discussion. I would like you to put together handouts/powerpoint that addresses those informational items list above. I will have an easel if you want to have a poster board as well. Due to time considerations, you will only have 5 minutes each to talk on your crop.

PRESENTATION _____