

# Applied Field Crop Production

AGR 4214c

Agronomy Department

University of Florida

Spring 2020

Instructor:	Greg MacDonald Office - 2059 McCarty Hall-D Email – <a href="mailto:pineacre@ufl.edu">pineacre@ufl.edu</a> Office phone – 352-294-1594
Class Schedule:	Monday, Wednesday, Friday - Period 3 (9:35-10:25)
Location:	McCarty Hall B – Room 3096
Course Website:	Canvas
Course Description:	This <b><u>3 credit</u></b> 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. 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: <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a> .

**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 10 @ 8% each); cropping systems profile (10%); class participation (10%). 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:** Information on current UF grading policies for assigning grade points This may be achieved by including a link to the web page:  
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

The following grading scale will be used in this class.

A = 93.0-100%	A- = 90.0-92.9%	
B+ = 87.0-89.9%	B = 83.0-86.9%	B- = 80.0-82.9%
C+ = 77.0-79.9%	C = 70.0-76.9%	
D+ = 67.0-69.9%	D = 60.0-66.9%	E = <60.0%

**Course Evaluation:** Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

**Student Disabilities:** “Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://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-honorcode/>) 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:**

Students experiencing crises or personal problems that interfere with their general wellbeing 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. For Health and Wellness the following are available:

**U Matter, We Care:**

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

**Counseling and Wellness Center:**

<https://counseling.ufl.edu/>, 392-1575; and the 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** - <http://www.police.ufl.edu/>

392-1111 (or 9-1-1 for emergencies).

**Academic Resources:**

E-learning technical support, 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto: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 On-Campus:

<https://sccr.dso.ufl.edu/policies/student-honorcode-student-conduct-code/>

On-Line Students Complaints:

<http://distance.ufl.edu/student-complaint-process/>

**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.*

## General Outline and Class Schedule for Applied Crop Production

<u>Lecture Topic</u>	<u>Date(s)**</u>
Introductions, overview of syllabus, etc.	January 6
Defining crops, history of agriculture	January 8
MINI-FIELD TRIP TO INTRODUCE CROPS – WEED SHOP	JANUARY 10
Overview of Crop Production, Review of Plant Basics	January 13, 15 & 17
<i>Martin Luther King, Jr. Day – no classes</i>	<i>January 20</i>
<b>Soils 101 and Quiz 1</b>	<b>January 22</b>
Soils 101 and Fertility Management cont'd	January 24
<b>No class (Dr. MacDonald at conference)</b>	<b>January 27</b>
<b>Quiz 2 - online, no class</b>	<b>January 29</b>
Tillage and Implements	February 3
Tillage and Implements, cont'd	February 5
Planting and Tillage Demonstration – WEED SHOP	February 7
The processes of crop growth from seed to seed <b>Quiz 3</b>	<b>February 10</b>
The processes of crop growth from seed to seed, cont'd	February 12
All things water – drought, flooding and irrigation	February 14, 17
Abiotic stresses <b>Quiz 4</b>	<b>February 19</b>
Abiotic Stress, cont'd	February 21
Biotic Stresses – Pests and Pest Management	February 24, 26
<b>Quiz 5</b>	<b>February 28</b>

***Spring Break - no class***

Crops – Cereals/Small Grains

Crop – Cereals/Small Grains, cont'd

Field Day at Weed Shop

Crops - Soybean

**Quiz 6 - online (Dr. MacDonald at conference)**

Crops – Corn, Sorghum, Millets, etc.

Crops – Rice

**Quiz 7 – online (Dr. MacDonald at Conference)**

Crops – Peanuts

Crops – Cotton

Crops – Sugar

**Quiz 8**

Crops – other legumes

Crops – Forages

Field Day at Weed Shop

Crops – Potatoes, sweet potatoes

Crops – Sunflowers, Flax, Sesame

**Quiz 9**

Crops – Miscellaneous

**Quiz 10**

**Crop Presentations**

**\*\* Tentative outline – subject to change**

**March 2 – March 6**

March 9

March 11

March 13

March 16

**March 18**

March 20, 23

March 25

**March 27**

March 30

April 1

**April 3**

April 6

April 8

April 10

April 13

April 15

April 17

**online**

**April 20, 22**

# Crop Assignment – Field Day Demonstration

## Applied Crop Production (AGR 4214)

For this assignment you will be playing the role of an extension agronomist at a field day demonstration. This 'event' will take place at the weed shop on **April 20 and 22** 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 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.