Applied Field Crop Production
AGR 4214c
Agronomy Department
University of Florida
Spring 2020

Instructor: Greg MacDonald
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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 3096

Course Website: Canvas

Course Description: This 3 credit 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: 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 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/) 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 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, https://lss.at.ufl.edu/help.shtml.


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/

Student Complaints On-Campus: [https://sccr.dso.ufl.edu/policies/student-honorcode-student-conduct-code/](https://sccr.dso.ufl.edu/policies/student-honorcode-student-conduct-code/)


**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

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

March 2 – March 6

Crops – Cereals/Small Grains
March 9

Crop – Cereals/Small Grains, cont’d
March 11

Field Day at Weed Shop
March 13

Crops - Soybean
March 16

Quiz 6 - online (Dr. MacDonald at conference)
March 18

Crops – Corn, Sorghum, Millets, etc.
March 20, 23

Crops – Rice
March 25

Quiz 7 – online (Dr. MacDonald at Conference)
March 27

Crops – Peanuts
March 30

Crops – Cotton
April 1

Crops – Sugar
April 3

Quiz 8

Crops – other legumes
April 6

Crops – Forages
April 8

Field Day at Weed Shop
April 10

Crops – Potatoes, sweet potatoes
April 13

Crops – Sunflowers, Flax, Sesame
April 15

Quiz 9

Crops – Miscellaneous
April 17

Quiz 10 online

Crop Presentations
April 20, 22

** Tentative outline – subject to change
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.