Proposal Form For Addition And Revision Of Courses

1. Proposing College / School: Agriculture
   Department: Agronomy

2. Course Prefix and Number: AGRN 3120
3. Effective Term: Fall 2011

4. Course Title:
   Principles of Weed Science
   Abbreviated Title (30 characters or less):
   Weed Science

5. Requested Action:
   - Renumber a Course
   - Add a Course
   - Revise a Course
   Current Course Number:
   Proposed Course Number:
   Type of Revision: Prerequisite

6. Course Credit:
   Contact/Group Hours  Scheduled Type (e.g.: Lab, Lecture, Practicum, Directed Study)  Weekly or Per Term?  Credit Hours  Anticipated Enrollment
   Maximum Hours (Repeatability): 4
   Lecture: 3
   Lab: 2
   Total Credit Hours: 4

7. Grading Type:
   - Regular (ABCDF)
   - Satisfactory/Unsatisfactory (S/U)
   - Audit

8. Prerequisites/Corequisites:
   Change prerequisites to BIOL 1020 and AGRN 2040 only. Drop current prereq of BIOL 3100.
   Use "P:" to indicate a prerequisite, "C:" to indicate a corequisite, and "P/C:" to indicate a prerequisite with concurrency.

9. Restrictions: List specific restriction in space above.
   - College
   - Major
   - Standing
   - Degree

10. Course Description:
    (20 Words or Less; exactly as it should appear in the Bulletin)
    Weed identification and biology, methods of weed management and classification of herbicides and how they are used in weed control.
    Laboratory subjects are weed identification and sprayer calibration.

11. May Count Either:
    (indicate if this particular course cannot be counted for credit in addition to another)
    Program Type
    (e.g.: minor, major, etc.)
    Program Title
    (e.g.: MS in Chemistry, Performance Option, Minor in Art)
    Requirement or Elective?
    (required or optional?)
    N/A

12. Affected Program(s):
    (Respond "N/A" if not included in any program; attach memorandum if more space is required)

13. Overlapping or Duplication of Other Units’ Offerings:
    (If course is included in any other degree program, is used as an elective frequently by other unit(s), or is in an area similar to that covered by another college/school, attach correspondence with relevant unit)
    - Applicable
    - Not Applicable
14. Justification: Current course content does not require BIOL 3100 information as a prerequisite.

(Include a concise, yet adequate rationale for the addition/revision of the course, citing accreditation, assessments (faculty, graduate, and/or external) where applicable)

15. Resources: NA

(Indicate whether existing resources such as library materials, classroom/laboratory space, and faculty appointments are adequate to support the proposed addition/revision; if additional resources are required, indicate how such needs will be met, referencing the appropriate level of authorization — i.e.: Dean — where necessary; if no additional resources or shifting of resources will be necessary, respond "Not Applicable")

16. Student Learning Outcomes: NA

(State in measurable terms (reflective of course level) what students should be able to do when they have completed this course)

17. Course Content Outline: See attached syllabus

(Provide a comprehensive, week-by-week breakdown of course content, including assignment due dates)

18. Assignments / Projects: See attached syllabus

(List all quizzes, projects, reports, activities and other components of the course grade — including a brief description of each assignment that clarifies its contribution to the course’s learning objectives)

19. Rubric and Grading Scale: See attached syllabus

(List all components of the course grade — including attendance and participation if relevant — with point totals for each; indicate point totals and ranges or percentages for grading scale; for S/U grading, detail performance expectations for a passing grade)

20. Justification for Graduate Credit: NA

(Including a brief statement explaining how the course meets graduate educational standards (i.e.: rigorous standards for evaluation, development of critical thinking and analytical skills, etc.)

(Included below are standard statements regarding course policies. If necessary, a statement may be altered to reflect the academic policies of individual faculty members and/or the academic unit or department, provided that there is no conflict with the Tiger Cub, Faculty Handbook, or any existing university policy.)

POLICY STATEMENTS

Attendance: Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence.

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request, and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Tiger Cub for more information on excused absences.

Make-Up Policy: Arrangement to make up a missed major examination (e.g., hour exams, mid-term exams) due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absence(s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up exam will take place within two weeks of the date that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.

Academic Honesty Policy: All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations: Students who need special accommodations in class, as provided for by the Americans With Disabilities Act, should arrange for a confidential meeting with the instructor during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). The student must bring a copy of their Accommodation Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2396 (V/TT).
Proposal Form For Addition And Revision Of Courses

1. Proposing College / School: Agriculture
   Department: Agronomy

2. Course Prefix and Number: AGRN 3123

3. Effective Term: Spring 12

4. Course Title: Principles of Weed Science
   Abbreviated Title (30 characters or less): Weed Science

5. Requested Action:
   - [ ] Renumber a Course
   - [ ] Add a Course
   - [ ] Revise a Course
   Current Course Number: 
   Proposed Course Number: AGRN 3123
   Type of Revision:

6. Course Credit:

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<tr>
<th>Contact/Group Hours</th>
<th>Scheduled Type</th>
<th>Weekly or Per Term?</th>
<th>Credit Hours</th>
<th>Anticipated Enrollment</th>
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<tbody>
<tr>
<td>Maximum Hours (Repeatability): 4</td>
<td>3</td>
<td>Lecture</td>
<td>Weekly</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Lab</td>
<td>Weekly</td>
<td>1</td>
<td>15</td>
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</table>

   Total Credit Hours: 4

7. Grading Type:
   - [ ] Regular (ABCDF)
   - [ ] Satisfactory/Unsatisfactory (S/U)
   - [ ] Audit

8. Prerequisites/Corequisites:
   Use "P:" to indicate a prerequisite, "C:" to indicate a corequisite, and "P/C:" to indicate a prerequisite with concurrency.
   BIOL 1020 and AGRN 2040

9. Restrictions: List specific restriction in space above.
   - [ ] College
   - [ ] Major
   - [ ] Standing
   - [ ] Degree

10. Course Description:
    (20 Words or Less; exactly as it should appear in the Bulletin)
    See attached syllabus.

11. May Count Either:
    AGRN 3120 or AGRN 3123

12. Affected Program(s): (Respond "N/A" if not included in any program; attach memorandum if more space is required)

13. Overlapping or Duplication of Other Units' Offerings:
    (If course is included in any other degree program, is used as an elective frequently by other unit(s), or is in an area similar to that covered by another college/school, attach correspondence with relevant unit)
    - [ ] Applicable
    - [ ] Not Applicable
14. Justification:

An online version of AGRN 3120 is needed to expand the general Agronomy and Soils teaching online. Additionally, this class will provide educational opportunities for non-traditional students.

(Include a concise, yet adequate rationale for the addition/revision of the course, citing accreditation, assessments (faculty, graduate, and/or external) where applicable)

15. Resources:

The primary resource for the online version of this course will be the course website on Blackboard. Additional information will be available at the Auburn University Weed Science website (http://www.auburnweedscience.com). This website will be especially helpful for weed identification resources and herbicide usage information.

(Indicate whether existing resources such as library materials, classroom/laboratory space, and faculty appointments are adequate to support the proposed addition/revision; if additional resources are required, indicate how such needs will be met, referencing the appropriate level of authorization – i.e.: Dean – where necessary; if no additional resources or shifting of resources will be necessary, respond “Not Applicable”)

16. Student Learning Outcomes:

Upon completion of this course students will:

1. Be able to identify 80 weeds common to southern agriculture, horticulture, and turfgrass.
2. Have a thorough understanding of why certain plant species are “weedy” compared to desirable plant species.
3. Have been educated in the threat of invasive plant species and their danger to natural and managed habitats.
4. Will be able to name, classify, and define the utilization characteristics of 60 herbicides registered for use in the United States.
5. Have been educated in the implications of genetically modified organisms on weed management and future implications of utilizing such technology.

(State in measurable terms (reflective of course level) what students should be able to do when they have completed this course)

17. Course Content Outline:

See attached syllabus.

(Provide a comprehensive, week-by-week breakdown of course content, including assignment due dates)

18. Assignments / Projects:

See attached syllabus.

(List all quizzes, projects, reports, activities and other components of the course grade – including a brief description of each assignment that clarifies its contribution to the course’s learning objectives)

19. Rubric and Grading Scale:

See attached syllabus

(List all components of the course grade – including attendance and/or participation if relevant – with point totals for each; indicate point totals and ranges or percentages for grading scale; for S/U grading, detail performance expectations for a passing grade)

20. Justification for Graduate Credit:

Not applicable.

(Include a brief statement explaining how the course meets graduate educational standards (i.e.: rigorous standards for evaluation, development of critical thinking and analytical skills, etc.))

(Included below are standard statements regarding course policies. If necessary, a statement may be altered to reflect the academic policies of individual faculty members and/or the academic unit or department, provided that there is no conflict with the Tiger Cub, Faculty Handbook, or any existing university policy.)

POLICY STATEMENTS

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Principles of Weed Science
AGRN 3120

The successful management of weeds requires knowledge of the biology and ecology of weeds to be managed, an understanding of how weeds interact with desirable plants, and knowledge of how the various weed management tools act to control weeds. The integration of this information will allow the development of weed management strategies that are economical, effective and environmentally sound. This course is designed to address these issues.

Instructor:

Dr. Scott McElroy
250 Funchess Hall
844-3992
jsm0010@auburn.edu

Office Hours:
MWF
250 Funchess Hall
1 to 3 pm

Credits: 4

Course Description:

An introduction to basic and applied aspects of weed science. Lecture topics include: weed biology/ecology, weed management, factors that affect weed control, and environmental issues associated with weed management. Topics covered in the laboratory: weed identification and herbicide sprayer calibration.

Course Objectives:

1. Familiarize students with the biology, ecology, and identification of important weed species, including invasive species.
2. Explore the basic, cultural, mechanical, biological and chemical tools necessary to develop weed management strategies.
3. Characterize herbicides and their interaction with weeds, crops and the environment.
4. Discuss weed management strategies for specific situations.

Supplemental readings assigned the instructor.

Class Attendance:

Attendance is not required but is highly encouraged. Class participation is beneficial to understanding the material.

Attendance Policy
1. Students are expected to attend all lectures and labs.
2. Failure to complete assignments or to take exams at designated times without an acceptable excuse will result in a zero for that assignment or exam.
3. Illness may be discussed with the instructor and prior permission received. Excuses for the following reasons should be discussed prior to submission:
   a. Illness of the student or serious illness of a member of the student’s immediate family.
   b. Death of a member of the student’s immediate family.
   c. Subpoena for court appearance.
   d. Participation in intercollegiate athletic events (verified by letter from professor, Dean or Athletic Department official)
   e. Religious holidays
   f. Other reasons the instructor deems appropriate, e.g. job interview

Exams:

Three regular exams and a final exam will be given. The final exam will be comprehensive but will emphasize material from lectures following the third regular exam.

Presentation Project:

An independent project will be conducted by each student. Projects will be on an individual basis and while some degree of collaborative effort is acceptable, it is expected that the projects will independent with no obvious redundancy among presentations. Students will submit project proposals to the instructor for approval.

Project: Applied Weed Control Methods Presentation and Extension Flier

Each student must give a 10 minute presentation on a specific weed control scenario. Students must develop an original presentation with 9 to 15 slides including crop/turf/desirable plant basics, agronomic practices, importance, major weed problems, weed management (preventative, cultural, mechanical, and chemical), major herbicides used and how they are used. Presentation
must be condensed into a two page handout mimicking a Cooperative Extension publication for
distribution to the class. Example templates of both the presentation and handout will be posted
on Blackboard as well as discussed thoroughly in course.

Potential Presentation Topics: Onions, Tomatoes, Conventional or Round-up Ready Corn,
Cotton, or Soybeans, Herbal Crops, Bermudagrass Golf Course Fairways, Bentgrass Putting
Greens, St. Augustinegrass home lawns, daylily production, dry bean production, etc. These are
a few examples. Any ideas from the student will be considered by the instructor. The special
project is meant to allow the student to integrate all of the learned weed science material and
apply it to a specific management area of which they are interested.

Presentation Projects are due the final week of class.

Laboratories:

Labs focus on two areas: weed identification and sprayer calibration. An additional lab syllabus
will be provided at the first lab session.

Course Grading:

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Exam I</td>
<td>100</td>
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<tr>
<td>Exam II</td>
<td>100</td>
</tr>
<tr>
<td>Exam III</td>
<td>100</td>
</tr>
<tr>
<td>Presentation Project</td>
<td>100</td>
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<tr>
<td>Final</td>
<td>100</td>
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<tr>
<td>Laboratory</td>
<td>300</td>
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<tr>
<td>Total</td>
<td>800</td>
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</table>

A= 720 - 800
B= 640 - 719
C= 560 - 639
D= 480 - 559
F=less than 480

Lecture Schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introduction to Weed Science</td>
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<tr>
<td>Week 2</td>
<td>Continued Intro- Harmful Aspects of Weeds</td>
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<tr>
<td>Week 3</td>
<td>Weed Physiology</td>
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<tr>
<td>Week 4</td>
<td>Weed Interference and Competition</td>
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<td>Week 5</td>
<td>Weed Control Methods (part I- Preventive, Cultural, and</td>
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<tr>
<td>Week</td>
<td>Topic</td>
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<tr>
<td>Week 6</td>
<td>Weed Control Methods (part II, Biological Control), Weed Ecology, and Invasive Species</td>
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<tr>
<td>Week 7</td>
<td>Weed Control Methods (part III, Chemical Control) and Introduction to Herbicides</td>
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<tr>
<td>Week 8</td>
<td>Herbicides I</td>
</tr>
<tr>
<td>Week 9</td>
<td>Herbicides II</td>
</tr>
<tr>
<td>Week 10</td>
<td>Physiology of Herbicides</td>
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<tr>
<td>Week 11</td>
<td>Herbicides in Soil</td>
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<tr>
<td>Week 12</td>
<td>Row Crop and Horticulture Weed Control</td>
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<tr>
<td>Week 13</td>
<td>Turfgrass Weed Control</td>
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<tr>
<td>Week 14</td>
<td>Biotechnology</td>
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<tr>
<td>Week 15</td>
<td>Surfactants</td>
</tr>
</tbody>
</table>

**Make-up Examinations:**

Make-up exams will only be given with a valid university excuse. This means a Doctor’s statement or other documentation must be provided. You are responsible for informing the instructor prior to missing an examination or no later than one week after the examination’s official date with an official excuse. The student must initiate arrangements to take the make-up immediately after returning to the class. A Make-up must occur within 1 week from the time that the student initiates arrangements for it or the student will receive a zero grade. Exam make-ups (either given before or after the regularly scheduled exam) are essay question exams designed to cover the material.

**Learners with Disabilities:**

Auburn University is committed to providing accommodations and services to learners with documented disabilities. Any learner with a qualified disability which requires accommodations should contact The Program for Learners with Disabilities, 1244 Haley Center, Auburn University, AL 36849, 334-844-2096 PH, 334-844-2099 FAX, scw0005@auburn.edu. More information is available on their website at www.auburn.edu/disability. The office will fax or mail the required forms to learners to apply for services. Learners who have questions to participate in this course should contact the above office in advance to ensure proper accommodations.
AGRN 3120 Lab - Principles of Weed Science  
Fall 2011

Course Grading: Your grade in this lab consists of weekly quizzes and two exams. Lab accounts for 300 points to be combined with your lecture grade. Lab is 38% of your entire course grade. A break down of grading is as follows:

Weed Identification Weekly Quizzes: 75 points  
Weed Identification Cumulative Exam: 75 Points  
Sprayer Calibration Weekly Quizzes: 75 Points  
Sprayer Calibration Cumulative Exam: 75 Points

Attendance: Attendance is mandatory. Unexcused absences will result in a zero for any quiz or exam missed. If you must miss a lab for an acceptable reason as defined by official University policy, prior notice is appreciated. If you must miss your lab section, you may attend the other section with approval from the instructor.

General Lab Notes: Please be on time for lab. We have lots of material to cover in only an hour and 50 minutes. Quizzes will be given at the beginning of each lab unless otherwise stated. If you are late, make-up quizzes are given at the instructor’s discretion. 
Lab will be conducted in one of three locations: 203 Funchess Hall (crops lab), Auburn Turfgrass Research Unit (TGRU), or the Weed Science Research Greenhouse. Much of this lab will be conducted outdoors at TGRU. Please come prepared (i.e. sunscreen, hat, etc). TGRU is located at the corner of Shug Jordan Pkwy and S. College St. Most days we will simply meet at TGRU. If you need transportation give me some advance notice. On a few occasions we will be traveling between locations. You will be given advanced notice if this is to occur. The greenhouse is located near the corner of South College and South Donahue.

Materials Needed: The usual - paper and writing utensil(s). Clipboard or other hard surface to write on when we are outside.

A Word About Lab Conditions: Most of the labs will be held outdoors at the Turfgrass Research Unit at the corner of South College and Shug Jordan. The weather will likely be hot for the first few lectures, so be prepared. Rain does not necessarily cancel lab even if it is outdoors. Unless the University is closed for inclement weather, we will still be having lab. Please always be aware of fire ants when we are outdoors and try to point out them for other students to avoid.

Recommended Text:
**Weeds of Southern Turfgrasses**
Purchase in Extension Publications office (basement of Duncan Hall)

Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Basics of Plant Identification, Weed Set I</td>
<td>Crops Lab- 203 Funchess</td>
</tr>
<tr>
<td>Week 2</td>
<td>Weed Identification, Set I</td>
<td>Turf Unit</td>
</tr>
<tr>
<td>Week 3</td>
<td>Weed Set II</td>
<td>Turf Unit</td>
</tr>
<tr>
<td>Week 4</td>
<td>Weed Set III</td>
<td>Turf Unit</td>
</tr>
<tr>
<td>Week 5</td>
<td>Weed Set IV</td>
<td>Turf Unit</td>
</tr>
<tr>
<td>Week 6</td>
<td>Weed Set V</td>
<td>Weed Science Greenhouse</td>
</tr>
<tr>
<td>Week 7</td>
<td>Weed ID Final</td>
<td>Crops Lab-203 Funchess</td>
</tr>
<tr>
<td>Week 8</td>
<td>Introduction to Sprayer Calibration</td>
<td>Crops Lab -203 Funchess</td>
</tr>
<tr>
<td>Week 9</td>
<td>Calibration Calculations</td>
<td>Crops Lab- 203 Funchess</td>
</tr>
<tr>
<td>Week 10</td>
<td>Calibration Demonstration/Spray Herbicide Demo</td>
<td>Weed Science Greenhouse</td>
</tr>
<tr>
<td>Week 11</td>
<td>Calibration Final Review</td>
<td>Crops Lab- 203 Funchess</td>
</tr>
<tr>
<td>Week 12</td>
<td>Calibration Final</td>
<td>Crops Lab- 203 Funchess</td>
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</tbody>
</table>
Principles of Weed Science
AGRN 3123
Distance Education Version

The successful management of weeds requires knowledge of the biology and ecology of weeds to be managed, an understanding of how weeds interact with desirable plants, and knowledge of how the various weed management tools act to control weeds. The integration of this information will allow the development of weed management strategies that are economical, effective and environmentally sound. This course is designed to address these issues.

Instructor:

Dr. Scott McElroy
250 Funchess Hall
844-3992
ism0010@auburn.edu

Virtual Office Hours:
Monday-Wednesday-Friday
8:00-8:50 AM

Credits: 4

Course Description:

An introduction to basic and applied aspects of weed science. Lecture topics include: weed biology/ecology, weed management, factors that affect weed control, and environmental issues associated with weed management. Topics covered in the laboratory: weed identification and herbicide sprayer calibration.

Course Objectives:

1. Familiarize students with the biology, ecology, and identification of important weed species, including invasive species.
2. Explore the basic, cultural, mechanical, biological and chemical tools necessary to develop weed management strategies.
3. Characterize herbicides and their interaction with weeds, crops and the environment.
4. Discuss weed management strategies for specific situations.

Supplemental readings assigned the instructor.

Necessary Resources: A digital camera.

Course Content:

You are expected to read the assigned textbook readings, lecture outlines, watch lecture presentations in the form of Microsoft PowerPoint, and take self-quizzes. More information is given about these activities in the Course Requirements section in this document. The proctored final examination is taken under the supervision of an approved proctor. The Distance Learning & Outreach Technology (DLOT) office of Auburn University verifies the proctors for the examinations. More information about the proctors is given in the Examination Process section in this document.

A variety of media provided by Blackboard are used for communication among class members and the instructor. These are online submission of assignments, email, and discussion board.

The “lecture” materials for the lessons are available through the course Web site in Blackboard. These materials will require Flash Player to view. If you do not have Flash Player, it can be downloaded for free by visiting Adobe’s Web site (www.adobe.com).

Class Attendance:

Attendance is not required but is highly encouraged. Class attendance will be monitored/tracked via login and access to Blackboard.

Class participation is essential to the success of this course. Therefore, class discussions are required. Class discussions will be conducted through the discussions forum on Blackboard. Each student is expected to participate in class discussions throughout the week. Discussions will be graded based upon the quantity and quality of the discussions posted as determined by the instructor.

Attendance Policy
1. Students are expected to review all lectures and learning modules
2. Failure to complete assignments or to take exams at designated times without an acceptable excuse will result in a zero for that assignment or exam.
3. Illness may be discussed with the instructor and prior permission received. Excuses for the following reasons should be discussed prior to submission:
   a. Illness of the student or serious illness of a member of the student’s immediate family.
   b. Death of a member of the student’s immediate family.
   c. Subpoena for court appearance.
d. Participation in intercollegiate athletic events (verified by letter from professor, Dean or Athletic Department official)
e. Religious holidays
f. Other reasons the instructor deems appropriate, e.g. job interview

Equipment and Technical Skills:

The following are necessary for this course:

- A computer with an Internet connection (high speed Internet is recommended)
- Knowledge of basic computer skills and experience using email and the internet
- Digital camera and ability to down load pictures into PowerPoint document (or other document format) to display a virtual weed collection.
- A video camera, built in computer camera, or ability to voice over PowerPoint slides to create a digital presentation.
- PowerPoint or similar presentation software.
- Word or similar word processing software.

Class Parameters, Resources and Limitations:

You are expected to stay on track, especially since the examinations will be focused on each unit’s topics. This type of course allows quite a bit of freedom, for instance, in determining at what time of day and where you do your coursework. It does, however, entail quite a bit of self-discipline and determination in order to keep up with the assignments. There are grade penalties for late work.

Exams:

Three regular exams and a final exam will be given. The final exam will be comprehensive but will emphasize material from lectures following the third regular exam. ALL exams will be proctored.

After the first session, you must select a proctor to supervise the final examination. Examples of approved proctors are academic administrators in the learner’s locale: school superintendents or principals, academic deans or department heads at colleges, or an independent learning office test supervisor at another college, or an education officer at a military installation. All proposed proctors are verified for appropriateness by Distance Learning and Outreach Technology (DLOT) student services staff at 334-844-3106 or audl@auburn.edu. At the time of the final examination, the proctor and the student fill out the Examination Information Verification form. This form along with any written material is mailed in a confidential self-addressed sealed envelope to DLOT office.

Presentation Project:
An independent project will be conducted by each student. Projects will be on an individual basis and while some degree of collaborative effort is acceptable, it is expected that the projects will independent with no obvious redundancy among presentations. Students will submit project proposals to the instructor for approval.

Project: Applied Weed Control Methods Presentation and Extension Flier

Each student must give a 10 minute presentation on a specific weed control scenario. Students must develop an original presentation with 9 to 15 slides including crop/turf/desirable plant basics, agronomic practices, importance, major weed problems, weed management (preventative, cultural, mechanical, and chemical), major herbicides used and how they are used. Presentation must be condensed into a two page handout mimicking a Cooperative Extension publication for distribution to the class. Example templates of both the presentation and handout will be posted on Blackboard as well as discussed thoroughly in course.

The presentations can be recorded via WIMBA or CourseCast technologies, recording voice over PowerPoint or keynote presentation, or traditional videotaping. Supplemental instructions will be made on Blackboard for the student presentations.

Potential Presentation Topics: Onions, Tomatoes, Conventional or Round-up Ready Corn, Cotton, or Soybeans, Herbal Crops, Bermudagrass Golf Course Fairways, Bentgrass Putting Greens, St. Augustinegrass home lawns, daylily production, dry bean production, etc. These are a few examples. Any ideas from the student will be considered by the instructor. The special project is meant to allow the student to integrate all of the learned weed science material and apply it to a specific management area of which they are interested.

Presentation Projects are due the final week of class.

Course Grading:

<table>
<thead>
<tr>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam I</td>
</tr>
<tr>
<td>Exam II</td>
</tr>
<tr>
<td>Exam III</td>
</tr>
<tr>
<td>Presentation Project</td>
</tr>
<tr>
<td>Final</td>
</tr>
<tr>
<td>Laboratory</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

A= 720 - 800  
B= 640 - 719  
C= 560 - 639  
D= 480 - 559  
F= less than 480
Lecture Schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Online Lecture Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introduction to Weed Science</td>
<td>1</td>
</tr>
<tr>
<td>Week 2</td>
<td>Continued Intro- Harmful Aspects of Weeds</td>
<td>2</td>
</tr>
<tr>
<td>Week 3</td>
<td>Weed Physiology</td>
<td>3</td>
</tr>
<tr>
<td>Week 4</td>
<td>Weed Interference and Competition</td>
<td>4</td>
</tr>
<tr>
<td>Week 5</td>
<td>Weed Control Methods (part I- Preventive, Cultural, and Mechanical Control)</td>
<td>5</td>
</tr>
<tr>
<td>Week 6</td>
<td>Weed Control Methods (part II, Biological Control), Weed Ecology, and Invasive Species</td>
<td>6</td>
</tr>
<tr>
<td>Week 7</td>
<td>Weed Control Methods (part III, Chemical Control) and Introduction to Herbicides</td>
<td>7</td>
</tr>
<tr>
<td>Week 8</td>
<td>Herbicides I</td>
<td>8</td>
</tr>
<tr>
<td>Week 9</td>
<td>Herbicides II</td>
<td>9</td>
</tr>
<tr>
<td>Week 10</td>
<td>Physiology of Herbicides</td>
<td>10</td>
</tr>
<tr>
<td>Week 11</td>
<td>Herbicides in Soil</td>
<td>11</td>
</tr>
<tr>
<td>Week 12</td>
<td>Row Crop and Horticulture Weed Control</td>
<td>12</td>
</tr>
<tr>
<td>Week 13</td>
<td>Turfgrass Weed Control</td>
<td>13</td>
</tr>
<tr>
<td>Week 14</td>
<td>Biotechnology</td>
<td>14</td>
</tr>
<tr>
<td>Week 15</td>
<td>Surfactants</td>
<td>15</td>
</tr>
</tbody>
</table>

Methods students will use to interact with the professor:

The students will watch and listen to recorded lectures by professor and guest lecturers. They will be able to communicate with the instructor and teaching assistant via email and telephone during specified virtual hours that will be communicated to the distance students.

Late Submissions:

As a distance education learner, it is your responsibility to share a significant
responsibility for preparing and discussing course material. If a serious situation arises and you anticipate that you will not be able to meet a deadline, it should be discussed with the instructor, before the due date. If the instructor is contacted, regarding the problem at least several days before the due date, and judges it to warrant special consideration (usually due to illness or injury) the instructor and you will negotiate an alternate due date. If the instructor has not been contacted and special consideration has not been granted, all material turned in after the due date will be penalized 10% of total possible points for each day late on the written assignments and discussion questions. Late exams will be penalized 5 points a day for each day late.

Make-up Examinations:

Make-up exams will only be given with a valid university excuse. This means a Doctor's statement or other documentation must be provided. You are responsible for informing the instructor prior to missing an examination or no later than one week after the examination's official date with an official excuse. The student must initiate arrangements to take the make-up immediately after returning to the class. A Make-up must occur within 1 week from the time that the student initiates arrangements for it or the student will receive a zero grade. Exam make-ups (either given before or after the regularly scheduled exam) are essay question exams designed to cover the material.

Learners with Disabilities:

Auburn University is committed to providing accommodations and services to learners with documented disabilities. Any learner with a qualified disability which requires accommodations should contact The Program for Learners with Disabilities, 1244 Haley Center, Auburn University, AL 36849, 334-844-2096 PH, 334-844-2099 FAX, scw0005@auburn.edu. More information is available on their website at www.auburn.edu/disability. The office will fax or mail the required forms to learners to apply for services. Learners who have questions to participate in this course should contact the above office in advance to ensure proper accommodations.

AGRN 3123 Lab

Labs focus on two areas: weed identification and sprayer calibration. Labs will be conducted via the web utilizing an online library of weed identification by photographs and drawings. Online resources are available at http://www.auburnweedsense.com and select “Weed Identification.” Videos will be posted for each week describing the weekly weed sets or sprayer calibration problems in a similar format as lecture. For additional images of weeds it is suggested to conduct basic web searches of individual weeds, as there are numerous web resources for weed identification. However, because there is great variation in quality, it is also suggested that reputable sites are used, such as: University of Georgia, Virginia Tech, NC State University, and USDA websites.
The following is a list of weekly lab activities:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Basics of Plant Identification, Weed Set I</td>
</tr>
<tr>
<td>Week 2</td>
<td>Weed Identification, Set I</td>
</tr>
<tr>
<td>Week 3</td>
<td>Weed Set II</td>
</tr>
<tr>
<td>Week 4</td>
<td>Weed Set III</td>
</tr>
<tr>
<td>Week 5</td>
<td>Weed Set IV</td>
</tr>
<tr>
<td>Week 6</td>
<td>Weed Set V</td>
</tr>
<tr>
<td>Week 7</td>
<td>Weed ID Final</td>
</tr>
<tr>
<td>Week 8</td>
<td>Introduction to Sprayer Calibration</td>
</tr>
<tr>
<td>Week 9</td>
<td>Calibration Calculations</td>
</tr>
<tr>
<td>Week 10</td>
<td>Calibration Demonstration/Spray Herbicide Demo</td>
</tr>
<tr>
<td>Week 11</td>
<td>Calibration Final Review</td>
</tr>
<tr>
<td>Week 12</td>
<td>Calibration Final</td>
</tr>
<tr>
<td>Week 13</td>
<td>Virtual Weed Collections Due</td>
</tr>
</tbody>
</table>

As a supplement to in-person instruction, videos of weekly lab topics will be posted for instruction. These videos will include images and descriptions of required species for plant identification and/or videos discussing sprayer calibration.

**Recommended Text:**

*Weeds of Southern Turfgrasses*

Purchase in Extension Publications office (basement of Duncan Hall) or order online from http://amazon.com or other online booksellers. This is an excellent supplemental text to aid with weed identification.

If a student is in a different area of the country and needs additional resources to aid with plant collections, the instructor will provide some suggestions for additional resources depending on the area. Some possible suggestions are: Weeds of the Northeast by Uva et al., Weeds of the South by Bryson and Defice, or Weeds of the West by Whitson et al. International texts are available if needed.

**Course Grading:** Lab accounts for 300 points of the 800-point potential points accumulated. The following is a breakdown of how lab points are accumulated.

- Weed Identification Weekly Quizzes: 50 points
- Weed Identification Cumulative Exam: 75 Points
- Sprayer Calibration Weekly Quizzes: 50 Points
- Sprayer Calibration Cumulative Exam: 75 Points
- Weed Collection: 50 Points
Weed Collection: Students will be required to make a virtual weed collection of 20 weed species. The virtual collection will require the use of a digital camera and a specialty tag unique to the student. The use of a specialty tag (paper clip with name, cloth pin with a name, special button, etc.) will allow the student to tag a given weed species and photograph it to confirm it was photographed by the student. This weed collection is important to gaining hands on experience related to weed identification that students taking an in-person class would experience. It is acknowledged that the students could be anywhere in the world or at different times of the year when taking this class. The instruction is open to any weed species that could be found, but it must be a weed and not a desirable plant species of some kind.

The weed collection must contain four identifiable pictures: 1. Whole plant in natural habitat; 2. Picture of flower characteristics; 3. Pictures of leaf characteristics; 4. Miscellaneous key characteristic that the student deems important to correct identification. Students must include these images along with plant common name, genus and species, family and life cycle.

Additional Information: Weed sprayer calibration is primarily learning to understand the mathematical skills necessary to apply liquid pesticides in broadcast application form. Materials will be made available to learn different types of sprayers, pumping systems, and calibration methods.
Supplemental Information For Addition Of Distance Education (DE) Course

1. Proposing College / School: Agriculture
   Department: Agronomy & Soils

2. Course Prefix and Number: AGRN 3123

3. Effective Term: 2012

4. Course Title:
   Principles of Weed Science
   Abbreviated Title (30 characters or less):
   Weed Science

5. On-Campus Pre/Corequisites:
   (Indicate any applicable pre/
   corequisites for the on-campus
   version of the course. Use the space
   provided below to indicate how they
   will be adjusted to accommodate DE
   students.)
   Prerequisite(s): BIOL 1020, AGRN 2040
   Corequisite(s): 
   Pre/Corequisite(s): 
   DE Adjustment: 

6. Affected Program(s):
   (Respond "NA" if not
   included in any program;
   attach memorandum if more
   space is required)
<table>
<thead>
<tr>
<th>Program Type</th>
<th>Program Title</th>
<th>Requirement or Elective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>B.S. in Agronomy &amp; Soils</td>
<td>Elective</td>
</tr>
</tbody>
</table>

7. Justification for DE Delivery:
   As part of a proposed distance education program.
   (Include a concise, yet adequate rationale for the addition of a distance education version of the course in question (e.g.: accreditation, as part of a proposed distance education program, expansion of opportunity for working professionals/students, etc.)

8. Access to Resources:
   Majority of content will be delivered via Blackboard.
   (Indicate how distance education students will be given access to all necessary academic resources, such as library materials, laboratory facilities, and learning centers.)

9. Course Content Delivery:
   See attached.
   (Outline, in specific detail, what adjustments will be made to the existing course in order to accommodate learning via distance education. Include delivery of lecture material, discussion sessions, and submission of assignments/papers, as applicable.)

10. Course Interaction:
    See attached.
    (Provide specific information regarding the adjustments that will be made to the course, in order to accommodate interaction between the student and instructor and peers via distance education. Include such aspects as office hours, class participation, and – if applicable – any time that the student would be required to be on-campus.)
Course Content Delivery

Lectures will be delivered as video content. Videos will primarily be slide presentations with voice over lectures to describe and illustrate content. Lectures have been divided into 15 weekly sections that follow the content of the current classroom lectures. To adequately replicate lab material it is important to understand that there are two primary topics covered in lab - plant identification and equipment calibration. Plant identification can be accomplished via a weed identification page at http://www.auburnweedscience.com and along with videos posted on Blackboard describing the major characteristics of each weed. Students can engage themselves in the field by completing the virtual weed collection described in the syllabus. Part two of lab is equipment calibration. This is primarily algebraic and stoichiometric calculations done in class. Video presentations of equipment will be provided to supplement this content.

Course Interaction

The course will have three virtual office hours per week. A chat room will be established during this time to discuss the current content and any problems students may be having. The instructor will correspond via email with students to aid them with their digital weed collection project.
To:       Dr. Joseph Touchton, Professor and Head, Agronomy & Soils
From:    Dr. Scott McElroy, Associate Professor, Agronomy & Soils
Subject: New Distance Courses in Agronomy & Soils
        Principles of Weed Science – AGRN 3123

We are seeking permission to offer a new course in Agronomy & Soils via distance education, Principles of Weed Science – AGRN 3123. The successful management of weeds requires knowledge of the biology and ecology of weeds to be managed, an understanding of how weeds interact with desirable plants, and knowledge of how the various weed management tools act to control weeds. The integration of this information in AGRN 3123 will allow the development of weed management strategies that are economical, effective and environmentally sound. AGRN 3120 is a 4-credit hour course consisting of multiple modules of information related to weed science.

As you know, the Agronomy and Soils Department is offering a graduate-level degree in soil science through distance education. The development of this course will allow for students to have a foundation in weed science, increase student enrollments, improve access to remote and international student populations in the graduate program, and is a major need for graduate courses in soil science majors.

Sincerely,

[Signature]

Dr. Scott McElroy
Department of Agronomy and Soils
250 Funchess Hall
844-3992
jsm0010@auburn.edu
Auburn University
Auburn, AL 36849