Proposal Form For Addition And Revision Of Courses

1. Proposing College / School: COSAM
   Department: Biological Sciences

2. Course Prefix and Number: BIOL 3100  
   3. Effective Term: Fall 2012

4. Course Title: Plant Biology
   Abbreviated Title (30 characters or less): Plant Biology

5. Requested Action:
   - Renumber a Course
   - Add a Course
   - Revise a Course

   Current Course Number: 
   Proposed Course Number: 
   Type of Revision: See memo

6. Course Credit:

<table>
<thead>
<tr>
<th>Contact/Group Hours</th>
<th>Scheduled Type</th>
<th>Weekly or Per Term?</th>
<th>Credit Hours</th>
<th>Anticipated Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>Combined Lecture Lab</td>
<td>4</td>
<td>30</td>
</tr>
</tbody>
</table>

   Maximum Hours (Repeatability): 4
   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 1030 or 1037, CHEM 1010 or 1030.

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)
    Introduction to the morphology, anatomy, physiology and classification of plants with laboratory.

11. May Count Either: 
    Program Type or Program Title 
    (Indicate if this particular course cannot be counted for credit in addition to another)
    Requirement or Elective? 
    (required or optional?)

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

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:

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

See memorandum.

15. Resources:

(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")

No new resources needed.

16. Student Learning Outcomes:

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

See memorandum.

17. Course Content Outline:

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

See attached syllabus

18. Assignments / Projects:

(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)

See attached syllabus

19. Rubric and Grading Scale:

(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)

See attached syllabus

20. Justification for Graduate Credit:

(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.))

Not applicable

(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, the 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, 844-2096 (VVTT).
### Proposal Form For Addition And Revision Of Courses

1. **Proposing College / School:** COSAM  
   **Department:** Biological Sciences

2. **Course Prefix and Number:** BIOL 3101  
   **Effective Term:** Fall 2012

3. **Course Title:** Plant Biology Laboratory

4. **Requested Action:**  
   - [ ] Renumber a Course  
   - [ ] Add a Course  
   - [ ] Revise a Course  

5. **Course Credit:**  
   **Maximum Hours (Repeatability):** 1  
   **Contact/Group Hours:** 2  
   **Scheduled Type:** Lab  
   **Weekly or Per Term?** 1  
   **Credit Hours:** 30  
   **Total Credit Hours:** 1

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

7. **Prerequisites/Corequisites:**  
   Use “P:” to indicate a prerequisite, “C:” to indicate a corequisite, and “P/C:” to indicate a prerequisite with concurrency.

8. **Restrictions:** List specific restriction in space above.

9. **Course Description:**  
   (20 Words or Less; exactly as it should appear in the Bulletin)

10. **May Count Either:**  
    (Indicate if this particular course cannot be counted for credit in addition to another)

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

12. **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)
14. Justification: We are requesting that this course be merged into BIOL 3100

(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: No new resources needed.

(Indicate whether existing resources such as library materials, classroom/lab 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:

(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:

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

18. Assignments / Projects:

(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:

(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:

(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

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, the 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, 844-2066 (V/TT).
Memorandum: Modification of BIOL 3100 Plant Biology

This memorandum provides additional responses to items for the requested modifications to BIOL 3100.

5. Requested Action.

We are requesting two changes to BIOL 3100

1. Merge BIOL 3100 Plant Biology and BIOL 3101 Plant Biology Laboratory into a combined lecture/lab course.

2. Change the chemistry prerequisites for the BIOL 3100 course from CHEM 1040 to either CHEM 1010 or CHEM 1030. The other prerequisites remain unchanged. Either CHEM 1010 or CHEM 1030 provides sufficient background for BIOL 3100.

12. Affected Programs:

This course is widely used in the Botany and Zoology majors as well as in Agronomy and Soils majors (CoAg) and Elementary Science Education majors (CoE). The change does not affect the CoE students as they are required to take both courses. Nearly all of the remaining students in BIOL 3100 elect to take the laboratory course as well, so we do not anticipate this change having a major effect on any major.

Changing the Chemistry prerequisites will allow students in other majors, such as those in the School of Forestry and Wildlife Sciences to consider the course.

14. Justification:

As mentioned in the response to item 12., most students take both lecture and laboratory course. However, there is often one or two students who enroll only in the lecture. By combining the two courses, this will allow the instructor, Dr. Aaron Rashotte to better integrate the content of the two courses and facilitate student enrollment in both.

16. Student Learning Outcomes

1. Students gain a working knowledge of the basics of plant biology including the areas of plant anatomy, physiology, and diversity such that they are prepared for higher level courses in plant-based areas of study, including botany, agronomy, and horticulture. Assessed with lecture exams and again in a comprehensive final exam.

2. Students gain a basic knowledge and techniques of laboratory plant biology including areas of plant physiology and anatomy such that they are prepared for higher level laboratory courses in this area of study.
a. Assessed with weekly written lab reports that include graphing and interpretation of data and drawing and identification of samples examined under the microscope.

b. Assessed with a comprehensive laboratory final exam.
BIOL 3100 Plant Biology Syllabus and Course Schedule Fall 2011

Instructor: Dr. Aaron Rashotte
Lecture: T and R Mornings 9:30-10:45 Room 336 Funchess Hall
Lab: M Afternoon 1:20-2:50 (sect 001), 3:40-5:10 (sect 002) Room 009 Rouse Life Sciences Building
Office: Room 306 Rouse Life Sciences Building
Office Hours: by appointment
Contact Information: rashotte@auburn.edu and Ph# 334-844-1625
TA: Paul Zwack
TA Contact Information: pjz0001@tigermail.auburn.edu, meeting by appointment

Course Description: This course provides a basic understanding of a wide variety of topics in plant biology, including knowledge of plant cells, tissues and organs, plant biochemical processes and plant diversity and development. Part of the course will follow a general lecture format with readings paralleled in “Biology of Plants” to support the lecture materials. In addition, there is a “hands on” laboratory section that will parallel the lecture material and give students an experimental experience related to many of the topics covered in the classroom. By the end of this course a student will have a basic knowledge of several areas of plant biology.

Required Text: Biology of Plants 7th edition by Raven, Evert, Eichhorn for the lecture. There is no required text for the lab sections, instead handouts will be provided to cover that material.

Attendance and Participation: Attendance and participation is expected and required in both the lecture and lab. Any materials covered in missed lectures or labs are the responsibility of the student and not the instructor. There is NO make-up period for missed labs.

Disability Accommodations/Needs: Students requiring accommodations/special needs are asked to arrange a meeting as soon as possible to discuss this, ideally week 1 of classes. Bring any forms indicating these needs to the meeting. If you require such forms make an appointment with The Program for Students with Disabilities, 1244 Haley Center, 844-2096 (V/TT).

Contingency plan: If lecture or lab class activities are disrupted due to illness, emergency, or crisis situation (such as an H1N1 flu outbreak) modification to the class syllabus, schedule and/or grading will be made if necessary with every attempt to maintain the current testing and grading scheme. For the lecture to this end testing will be conducted if necessary solely from material posted on blackboard as not to penalize absent students. Any missed exam will have its material place on the final exam and point value as well. If the instructor is absent for an extended time, lecture material will be posted on blackboard if a substitute lecturer cannot be found. For the lab to this end, students absent from labs can drop that lab from the overall grading, without it counting as their extra lab to drop. Lab material in this case will be posted on blackboard as not to penalize absent students. If the instructor or TA cannot conduct the lab, then that lab will be dropped from the overall grading scheme without penalty to the students.

Honor Code: Students are expected to follow the rules outlined in the Student Academic Honesty Code in all aspects of class including tests and assignments, and understand the consequences of violation in the Tiger Cub Handbook (http://www.auburn.edu/tigercub/rules/).
Moreover they are expected to follow the AU Oath of Honor during their participation in the class "In accordance with those virtues of Honesty and Truthfulness set forth in the Auburn Creed, I, as a student and fellow member of the Auburn family, do hereby pledge that all work is my own, achieved through personal merit and without any unauthorized aid. In the promotion of integrity, and for the betterment of Auburn, I give honor to this, my oath and obligation."

**Grading:**
Overall your class grade is composed from two different parts: Lecture (80%) and Lab (20%).

(1) Your lecture grade (80%) of your overall grade is generated from 3 tests each worth 20% and a comprehensive final exam that will be worth 40% of your total lecture grade.

(2) Your lab grade (20%) of your overall grade is generated from a combination of 75% weekly lab reports (the best 10 of 11) and 25% from your lab comprehensive final exam. Grading for individual lab reports will be based on in-lab exercises, drawings, or reports due at the beginning of the next lab 10% off per day late. Reports will be conducted on a lab to lab basis and students will be informed of how the grading for each lab will be done in the weekly lab handout at the beginning of the lab.

Make up tests can only be taken if the student has an excused absence as defined by the AU Bulletin or Tiger Cub Handbook and a written excuse. Students are expected to follow the rules outlined in the Student Academic Honesty Code in all aspects of the class as noted above.

**Overall Grade Composition = 100% (Lecture 80%: Lab 20%)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Test 1</td>
<td>16%</td>
</tr>
<tr>
<td>Lecture Test 2</td>
<td>16%</td>
</tr>
<tr>
<td>Lecture Test 3</td>
<td>16%</td>
</tr>
<tr>
<td>Lecture Final Exam</td>
<td>32%</td>
</tr>
<tr>
<td>Lab Reports (best 10 of 11)</td>
<td>15%</td>
</tr>
<tr>
<td>Lab Final Exam</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Grading Scale: Total = 100%**

- A = 100% – 90%
- B = 89% - 80%
- C = 79% - 70%
- D = 69% - 60%
- F = Below 60%
Tentative Lecture Schedule for Plant Biology BIOL3100:
T and R Mornings 9:30-10:45

8/18  Class info/ Syllabus/ Intro to Plant Biology
Reading in Raven 7e
8/23  Plant Cell
     Chapter 1
8/25  Cell Cycle, Mitosis and Meiosis
     Ch. 3
8/30  Genetics
     Ch. 3
9/ 1  Genetics Continued
     Ch. 8
9/ 6  Energy Flow and Respiration
     Ch. 9
9/ 8  Photosynthesis
     Ch. 9
9/13  Photosynthesis continued
     Ch. 7

9/15  Test 1 (Cells, Functions and Processes)
9/20  Alternation of generations and early plant development
     Ch. 22
9/22  Cell types/ tissue types/ meristems
     Ch. 23
9/27  Water movement in cells and tissues
     Ch. 4, 30
9/29  Roots
     Ch. 24
10/ 4  Shoots: stems and leaves
     Ch. 25
10/ 6  Secondary growth
     Ch. 25
10/11  Flowers
     Ch. 25
10/13  Fruit structure and function
     Ch. 25

10/18  Test 2 (Structures and Tissues)
10/20  Diversity and Systematics
     Ch. 12
10/25  Algae + Bryophytes
     Ch. 15-16
10/27  Seedless vascular plants
     Ch. 17
11/ 1  Gymnosperms
     Ch. 18
11/ 3  Angiosperms revisited (pollination)
     Ch. 19
11/ 8  Hormones and development
     Ch. 27
11/10  External growth factors (tropisms)
     Ch. 28
11/15  Nutrition
     Ch. 29

11/17  Test 3 (Diversity and Development)
11/19-11/27  THANKSGIVING BREAK
11/29  Transgenics, plant biotech, genomics
     Ch. 10
12/ 1  Review

12/ 7  FINAL
     (8:00am-10:30am Wednesday, December 7th)
<table>
<thead>
<tr>
<th>Date</th>
<th>Lab No</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/22</td>
<td>No Lab</td>
<td></td>
</tr>
<tr>
<td>8/29</td>
<td>Lab1</td>
<td>Intro. Microscope Mitosis/Meiosis</td>
</tr>
<tr>
<td>9/5</td>
<td>No Lab</td>
<td>Labor Day</td>
</tr>
<tr>
<td>9/12</td>
<td>Lab2</td>
<td>DNA Isolation</td>
</tr>
<tr>
<td>9/19</td>
<td>Lab3</td>
<td>Photosynthesis</td>
</tr>
<tr>
<td>9/26</td>
<td>Lab4</td>
<td>Water Relations</td>
</tr>
<tr>
<td>10/3</td>
<td>Lab5</td>
<td>Root Structures</td>
</tr>
<tr>
<td>10/10</td>
<td>Lab6</td>
<td>Stem and Leaf Structures</td>
</tr>
<tr>
<td>10/17</td>
<td>Lab7</td>
<td>Flower Structure</td>
</tr>
<tr>
<td>10/24</td>
<td>Lab8</td>
<td>Fruit Structure</td>
</tr>
<tr>
<td>10/31</td>
<td>Lab9</td>
<td>Secondary Growth and Wood</td>
</tr>
<tr>
<td>11/7</td>
<td>Lab10</td>
<td>Plant Diversity / Arboretum Field Trip</td>
</tr>
<tr>
<td>11/14</td>
<td>Lab11</td>
<td>Tropisms</td>
</tr>
<tr>
<td>11/21</td>
<td>No Lab</td>
<td>Thanksgiving Break</td>
</tr>
<tr>
<td>11/28</td>
<td></td>
<td>Comprehensive Lab Final (during normal lab time)</td>
</tr>
</tbody>
</table>