Course Proposal: Modify

CID and Name:
10333648----Pratt, Donald

1. Course: **BIO 351 Plant Kingdom**

2. Term/Year: **Fall 2014**

3. CIP CODE/10 Digit Program Code: **2603010002**

4. Current Course Title: **Plant Kingdom**
Modified Course Title: **N/A**

5. What is the primary reason you are modifying this course:
I propose to increase Bio 351 The Plant Kingdom from 3 to 4 credit hours by including an extra lecture hour. Two lecture hours is insufficient time to introduce students to groups of plants (the current course content) AND to scientific principles underlying the discipline of plant systematics. The result is an authoritarian approach in which students memorize facts about plant diversity divorced from the scientific principles of how systematists derived the information students learn. By increasing the lecture to 3 hours I will include a new introductory unit that will teach students how scientists perform research in biodiversity, including lectures on plant collection and sampling strategies, herbaria, using taxonomic keys for plant identification, and phylogenetics. The proposed text book contains chapters covering this material. Additionally, recent changes that I implemented in lab incorporating photography have allowed me to double up several lab topics and thus free time in the lab schedule for laboratory exercises correlating to the new unit material, including labs on classification, keying, and phylogenetics.

6. Enter course description exactly as it will appear in the general/graduation bulletin:
N/A

7. Enter modified course description exactly as it will appear in the general/graduation bulletin:
N/A

8. Current Prerequisites:
N/A

9. Modified Prerequisites:
N/A

10. College: **College of Science/Mathematics**

11. Department Teaching Course: **Biology**

12. Instruction Type: **N/A**

13. Modified Credit Hours Maximum: **4**

Credit Hours Minimum: **4**

Maximum Hours counted toward degree: **4**

14. Maximum contact hours each week Fall Semester: **3**

15. May this course be taken more than one time each semester? **N/A**

16. Grade Type: **N/A**

17. Describe the place of the modified course within your current curriculum. (Will it be elective or required? Part of a major or a minor?)

This course is required for students taking a Botany Emphasis or seeking Biology Teaching Certification. It is an elective for students in the Ecology, Evolutionary Biology and Cell and Molecular Biology emphases.

18. How does the modified course differ from similar courses being offered at Stephen F. Austin?

No other course is similar to this course

19. Syllabus: Course Learning Goals
List course objectives; describe what students who complete the course will now or be able to do.

Upon completion of this course students will be able to: 1. Describe the diagnostic features of all groups of Land Plants and their adaptations for life on land 2. Describe the reproductive cycle of land plants and variations of that cycle 3. Visually recognize plant reproductive and morphological structures and recognize to which groups these features belong 4. Work together in teams to produce high-quality photographs of living specimens and microscope preparations 5. Create a PowerPoint based portfolio incorporating the knowledge gained in learning goals 1-3 with the images obtained in learning goal 4

20. Syllabus: Course Outline
List the topics that the proposed course will cover and indicate the approximate proposed amount of time to be devoted to each, either by percent of course time or number of weeks. Please indicate which topics will be required in all sections of the course and which may vary.

Unit I- The Science of Systematics 20% Unit II- Bryophytes 25% Unit III- Seedless Tracheophytes 20% Unit IV- Spermatophytes 35%

21. Any Other Information.

NA

----Course Syllabus----
Must accurately reflect the course syllabus. (N/A is not acceptable response)

22. Program Learning Outcomes
List the program learning outcomes addressed in this course as identified in the course matrix for your degree program. If your department requires a listing of all Program Learning Outcomes (PLOs) on the syllabus, please identify those that are directly taught in this course. If this is a general education core curriculum course and no PLOs are taught in this course then insert the following statement under this heading:

This is a general education core curriculum course and no specific program learning outcomes for this major are addressed in this course.

This course corresponds to PLOs 1 (Knowledge), 3 (Teamwork) and 4 (Scientific Method).

23. General Education Core Curriculum Objectives/Outcomes
List the Exemplary Educational Objectives (EEOs) for this course if the course is included in the general education core curriculum. If you have reworded the EEOs as outcomes for your course, please be sure that the original intent of the EEO is retained.

NA

24. Student Learning Outcomes
List all student learning outcomes (SLOs) for this course including the course specific student learning outcomes that support the PLOs above. In general, SLOs in a course that support the PLOs are specific and include the exact knowledge, skill or behavior taught in the course that supports the more global PLOs. For additional information on meaningful and measurable learning outcomes see the assessment resource page http://www.sfasu.edu/assessment/index

Lecture-based competencies will be evaluated by a series of exams that will include a variety of question types, including: multiple-choice, matching, short answer, and essay questions. 1. Students will learn the reproductive features, adaptations, diversity, and evolutionary history of the various groups of plants traditionally classified in the plant kingdom. (PLO 1) 2. Students will master the basic concepts of plant reproduction and reproductive biology including: life cycles, alternation of generation, gametangia, sporangia, sporophylls, ovules, seeds, fruits, and flowers. Students will be able to associate reproductive features and patterns found within each lineage studied. (PLO 1) 3. Students will learn the major adaptations that were necessary for life on land and the characteristics of all land plants. (PLO 1)

25. Syllabus: Modified Textbook/Assigned Reading Materials for course:

Plant Systematics, 2nd edition, by Michael G. Simpson

26. Course Requirements
Describe the major course requirements, assignments, examinations, projects.

Two midterm exams (120 pts each) 240 pts. Final exam 120 pts. Plant Collections (2 collections, 10 pts each) 20 pts. Laboratory portfolios (9 labs, 10 pts each) 90 pts.

27. Course Calendar
Create a tentative timeline for the course. At a minimum, list the topics that the course will cover and indicate the approximate amount of time to be devoted to each, either by percent of course time or number of weeks. The calendar should provide information for the maximum number of weeks scheduled for the course.

Unit I- The Science of Systematics Syllabus Intro to Systematics Plant Collecting and Herbaria Plant Identification and Keys Phylogenetics and Classification Phylogenetics and Character State Mapping Unit II- Bryophytes Intro to Plant Biodiversity Embryophytes Bryophytes Marchatiophyta Bryophyta Anthocerotophyta Unit III- Seedles Tracheophytes Tracheophytes Devonian Explosion Lycophyta Euphyllophytes Polypodiophyta Unit IV Spermatophytes Spermatophytes Gymnosperms Cycads and Ginkgos Pinophyta Gnetophyta Angiosperms Fruits Fruit and Flower Trends Origin of Angiosperms First Flower Video ANITA and Magnoliids Monocots Eudicots

28. Grading Policy
Describe how the grade for the course is determined.

Students will receive a single grade from both lecture and lab. Final grades will be assigned using the following format: 90+% = A; 80-89%= B; 70-79%= C; 60-69%= D; <60%= F

29. Attendance Policy
State your attendance policy.

Students are responsible for attending lectures, taking notes, and reading the course text. Lectures will be posted on d2l. These lectures are in an outline form. Students should print out lectures and bring them to class to take notes on.

30. Academic Integrity (A-9.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been

purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

31. Withheld Grades Semester Grades Policy (A-54)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

32. Students with Disabilities

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices.

Dept. Chair Jan T. Moore Date: 11/5/13

College Curriculum Chair _____ Date: _____

Dept. Dean _____ Date: _____

College Curriculum Dean _____ Date: _____

RELEASE: 8.3

Course Proposal: Modify

CID and Name:
10333648----Pratt, Donald

1. Course: **BIO 351L Plant Kingdom Lab**

2. Term/Year: **Fall 2014**

3. CIP CODE/10 Digit Program Code: **2603010002**

4. Current Course Title: **Plant Kingdom Lab**
Modified Course Title: **N/A**

5. What is the primary reason you are modifying this course:
I propose to increase Bio 351 The Plant Kingdom from 3 to 4 credit hours by including an extra lecture hour. Two lecture hours is insufficient time to introduce students to groups of plants (the current course content) AND to scientific principles underlying the discipline of plant systematics. The result is an authoritarian approach in which students memorize facts about plant diversity divorced from the scientific principles of how systematists derived the information students learn. By increasing the lecture to 3 hours I will include a new introductory unit that will teach students how scientists perform research in biodiversity, including lectures on plant collection and sampling strategies, herbaria, using taxonomic keys for plant identification, and phylogenetics. The proposed text book contains chapters covering this material. Additionally, recent changes that I implemented in lab incorporating photography have allowed me to double up several lab topics and thus free time in the lab schedule for laboratory exercises correlating to the new unit material, including labs on classification, keying, and phylogenetics.

6. Enter course description exactly as it will appear in the general/graduation bulletin:
N/A

7. Enter modified course description exactly as it will appear in the general/graduation bulletin:
N/A

8. Current Prerequisites:
N/A

9. Modified Prerequisites:
N/A

10. College: **College of Science/Mathematics**

11. Department Teaching Course: **Biology**

12. Instruction Type: **N/A**

13. Modified Credit Hours Maximum: **0**

Credit Hours Minimum: **0**

Maximum Hours counted toward degree: **0**

14. Maximum contact hours each week Fall Semester: **3**

15. May this course be taken more than one time each semester? **N/A**

16. Grade Type: **N/A**

17. Describe the place of the modified course within your current curriculum. (Will it be elective or required? Part of a major or a minor?)

This course is required for students taking a Botany Emphasis or seeking Biology Teaching Certification. It is an elective for students in the Ecology, Evolutionary Biology and Cell and Molecular Biology emphases.

18. How does the modified course differ from similar courses being offered at Stephen F. Austin?

No other course is similar to this course

19. Syllabus: Course Learning Goals
List course objectives; describe what students who complete the course will now or be able to do.

Upon completion of this course students will be able to: 1. Describe the diagnostic features of all groups of Land Plants and their adaptations for life on land 2. Describe the reproductive cycle of land plants and variations of that cycle 3. Visually recognize plant reproductive and morphological structures and recognize to which groups these features belong 4. Work together in teams to produce high-quality photographs of living specimens and microscope preparations 5. Create a PowerPoint based portfolio incorporating the knowledge gained in learning goals 1-3 with the images obtained in learning goal 4

20. Syllabus: Course Outline
List the topics that the proposed course will cover and indicate the approximate proposed amount of time to be devoted to each, either by percent of course time or number of weeks. Please indicate which topics will be required in all sections of the course and which may vary.

Unit I- The Science of Systematics 3 labs Unit II- Bryophytes 2 labs Unit III- Seedless Tracheophytes 2 labs Unit IV- Spermatophytes 2 labs

21. Any Other Information.

NA

----Course Syllabus----
Must accurately reflect the course syllabus. (N/A is not acceptable response)

22. Program Learning Outcomes
List the program learning outcomes addressed in this course as identified in the course matrix for your degree program. If your department requires a listing of all Program Learning Outcomes (PLOs) on the syllabus, please identify those that are directly taught in this course. If this is a general education core curriculum course and no PLOs are taught in this course then insert the following statement under this heading:

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Lab-based competencies will be evaluated by student- prepared PowerPoint portfolios consisting of photographs of living specimens and microscopic features visualized using microscopes and prepared slides; visual recognition of studied features in the practical portion of the exams; and plant collection projects. 1. Students will learn to recognize plant reproductive structures and groups using living materials and prepared slide specimens. (PLO 1) 2. Students will work together in teams (PLO 3) to take photographs of slide materials and make plant collections (PLO 4).

25. Syllabus: Modified Textbook/Assigned Reading Materials for course:

Plant Systematics, 2nd edition, by Michael G. Simpson

26. Course Requirements
Describe the major course requirements, assignments, examinations, projects.

Three midterm exams (120 pts each) 360 pts. Final exam 120 pts. Plant Collections (2 collections, 10 pts each) 20 pts. Laboratory portfolios (9 labs, 10 pts each) 90 pts.

27. Course Calendar
Create a tentative timeline for the course. At a minimum, list the topics that the course will cover and indicate the approximate amount of time to be devoted to each, either by percent of course time or number of weeks. The calendar should provide information for the maximum number of weeks scheduled for the course.

Unit I (4 labs) Classification Keying Phylogenetics Exam I Unit II (3 labs) Embryophytes and Liverworts Mosses and Hornworts Exam II Unit III (3 labs) Steles Lycophyta and Ferns Exam Unit IV (2 labs) Gymnosperms Angiosperms

28. Grading Policy
Describe how the grade for the course is determined.

Students will receive a single grade from both lecture and lab. Final grades will be assigned using the following format: 90+% = A; 80-89%= B; 70-79%= C; 60-69%= D; <60%= F There will be no extra credit.

29. Attendance Policy
State your attendance policy.

Students must attend lab. Due to the collaborative nature of lab work, roll will be kept and students will receive a 0 for any lab they missed.

30. Academic Integrity (A-9.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
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Dept. Chair John T. Moore Date: 11/8/13

College Curriculum Chair _____ Date: _____

Dept. Dean _____ Date: _____

College Curriculum Dean _____ Date: _____

RELEASE: 8.3