

**Eastern Illinois University
New Course Proposal
BIO 4920, Medicinal Plants**

CGS Agenda Item:16-47
Effective Fall 2016

Banner/Catalog Information (Coversheet)

1. ☐ New Course or ☒ Revision of Existing Course
2. Course prefix and number: BIO 4920
3. Short title: _____ Medicinal Plants _____
4. Long title: _____ Medicinal Plants _____
5. Hours per week: 3___ Class 0___ Lab 3___ Credit
6. Terms: ☐ Fall ☐ Spring ☐ Summer ☒ On demand
7. Initial term: ☒ Fall ☐ Spring ☐ Summer Year: **2016**
8. **Catalog course description:** A worldwide survey of the past and present human utilization of plants and plant products as medicines, including their chemical constituents and natural and cultural history.

9. Course attributes:

General education component: _____

☐ Honors ☐ Writing centered ☐ Writing intensive ☒ Writing active

10. Instructional delivery

Type of Course:

☒ Lecture ☐ Lab ☐ Lecture/lab combined ☐ Independent study/research

☐ Internship ☐ Performance ☐ Practicum/clinical ☐ Other, specify:

Mode(s) of Delivery:

☒ Face to Face ☒ Online ☐ Study Abroad

☐ Hybrid, specify approximate amount of on-line and face-to-face instruction_____

11. Course(s) to be deleted from the catalog once this course is approved. N/A

12. Equivalent course(s): _____None_____

a. Are students allowed to take equivalent course(s) for credit? ☐ Yes ☒ No

13. Prerequisite(s): BIO 1200G (General Botany) or equivalent

a. Can prerequisite be taken concurrently? ☐ Yes ☒ No

b. Minimum grade required for the prerequisite course(s)? D

c. Use Banner coding to enforce prerequisite course(s)? x Yes No

d. Who may waive prerequisite(s)?

 No one x Chair Instructor Advisor Other (specify)

14. Co-requisite(s): None

15. Enrollment restrictions

a. Degrees, colleges, majors, levels, classes which may take the course: All majors

b. Degrees, colleges, majors, levels, classes which may not take the course: None

16. Repeat status: X May not be repeated May be repeated once with credit

17. Enter the limit, if any, on hours which may be applied to a major or minor:

18. Grading methods: X Standard CR/NC Audit ABC/NC

19. Special grading provisions:

 Grade for course will not count in a student's grade point average.

 Grade for course will not count in hours toward graduation.

 Grade for course will be removed from GPA if student already has credit for or is registered in: _____

 Credit hours for course will be removed from student's hours toward graduation if student already has credit for or is registered in: _____

20. Additional costs to students:

Supplemental Materials or Software None _____

Course Fee x No Yes, Explain if yes.

21. Community college transfer:

 A community college course may be judged equivalent.

 X A community college may not be judged equivalent.

Note: Upper division credit (3000+) will not be granted for a community college course, even if the content is judged to be equivalent.

Rationale, Justifications, and Assurances (Part I)

1. ☐ Course is required for the major(s) of _____
☐ Course is required for the minor(s) of _____
☐ Course is required for the certificate program(s) of _____
☒ Course is used as an elective (for Biological Sciences)
2. **Rationale for proposal:** This proposal is a revision of BIO 4920. This revision will allow the course to be offered online, or in a traditional classroom setting. Students will have an opportunity to learn about the numerous ways medicinal plants and plant products have influenced civilizations, and affect their daily lives. Offering this course online will accommodate off-campus and distance students and those with work schedules that might otherwise prevent them from taking the course.
3. **Justifications for (answer N/A if not applicable)**
Similarity to other courses: None
Prerequisites: The prerequisite for this course, BIO 1200G (General Botany), is the same as that for most other upper level plant-focused courses in the Biological Sciences curriculum. BIO 1200 will provide students with basic information about plant structure, physiology, and evolution that are needed for BIO 4920.
Co-requisites: N/A
Enrollment restrictions: N/A
Writing intensive: N/A
4. **General education assurances (answer N/A if not applicable)**
General education component: N/A
5. **Online/Hybrid delivery justification & assurances (answer N/A if not applicable)**
Online or hybrid delivery justification:
Students reaching the final years of their studies should have the opportunity to think and reflect about what, in the end, gives their lives meaning. Offering this course online accommodates off-campus and distance students and those with work schedules that might otherwise prevent them from taking the course.

Instruction: Course content will be delivered via video or other appropriate platform for readings, etc. Video field trips will be included, to sites such as the EIU Greenhouse, Fox Ridge State Park, and Arthur, Illinois. Discussion boards will hone critical thinking skills and help students understand the lectures and readings. They will also facilitate a learning community so that student interaction is promoted. Appropriate technology will be used to construct videos so that students' speaking and listening skills are sharpened. All faculty who deliver this course online are/will be OCDI (or appropriate equivalent) trained.

Integrity: The term paper will make plagiarism difficult and reinforce analytic and critical thinking skills. Plagiarism software, such as Turnitin.com, for the term paper, midterm and final will check for duplication of work. Quizzes will be timed. Students will construct videos for work on verbal expression. Video responses identify students visually.

Interaction: Interaction will be facilitated via e-mail, phone, video, discussion boards or other shared online support as determined by the particular faculty member. As online courses provide learning environments for people mostly unable to attend on-campus courses due to work or distance issues, interaction will probably be asynchronous.

Model Syllabus (Part II)

Please include the following information:

1. Course number and title: BIO 4920 Medicinal Plants
2. **Catalog course description:** (3-0-3) A worldwide survey of the past and present human utilization of plants and plant products as medicines, including their chemical constituents and natural and cultural history.
3. Learning objectives.

At the end of the course students should be able to:

1. Recognize, analyze, and evaluate the ways in which medicinal plants impact and influence the human experience, both in written and verbal responses. (CT – 1,3,4,5,6, W&CR – 2,3,4,6,7, SL -1,2,3,4,5,7) (GLG 2, 4)
2. Recognize, identify and articulate diverse aspects of medicinal plant usage, both verbally and in writing assignments. (W&CR- 2,3,4,6,7, and SL – 1,2,3,4,5,7) (GLG 1, 3)
3. Explain and evaluate the role of medicinal plants in various aspects of life. This involves understanding the experiences of individuals and cultures on a world-wide basis. (RC – 1,4, CT - 1,3,4,5,6, W&CR - 2,3,4,6,7) (GLG 1, 2)
4. Course materials.

Particular materials may vary over time and according to the specialization of the instructor.

Textbook: Sumner, Judith. 2000. The Natural History of Medicinal Plants. Timber Press.

Course packet (readings from public domain, in pdf format)

5. Weekly outline of content.

Week 1 Introduction; Flowers, fruits, and seeds including virtual lab and pollination video; discussion of presentations; term paper requirements

Week 2 Natural chemicals in plants and their effect on health and physiology; saponins, glycosides, flavonoids, mustard oils, tannins, essential oils, alkaloids, inter al. Greenhouse tour (or virtual).

Week 3 Coffee, Tea, Chocolate and other sources of caffeine. Plants in Religion, Folklore, and Mythology.

Week 4-5 Origins of Agriculture and the development of medicinal plant knowledge. Plant families and the sources of plant medicines

Weeks 6-7 Herbs and Herb gardens; Spices; greenhouse worksheet. Literature review for term paper and presentation

Weeks 8-9 Medicinal plants in modern Western Medicine. Midterm.

Weeks 10-11 Cultural Uses of medicinal plants: Latin America; Africa; Europe and the Mediterranean; Ayurvedic Medicine and Traditional Chinese Medicine (TCM)

Weeks 12-13 Field trip to U of I Botanical Conservatory and international food stores in Champaign (or virtual for online students). Conservation Concerns and Property Rights; Safety Concerns and Regulations (in the US and in other countries). Term paper due.

Weeks 14-15 Student presentations (virtual for online students)

Week 16 Final Exam

6. Assignments and evaluation, including approximate weights for final course grade.

Quizzes	100 points
Homework	130
In class discussions	50
Midterm	100
Presentation	70
Term Paper	100
Final Exam	150
Total	700

Note: Presentation and term paper on same subject, chosen by student in consultation with instructor. Term paper, including literature review: 6 pages for undergraduates, 12 pages for grad students.

7. Grading scale.

90-100% = A

80- 89% = B

70-79% = C

60-69% = D

below 60% = Failing

8. Correlation of learning objectives to assignments and evaluation.

Learning Objectives	Quizzes, discussions, homework (40%)	Literature review, Term Paper (and revision) (14.3%)	Midterm and Final Exams (35.7%)	Presentation (10%)
Students will recognize, interpret, and evaluate ways in which medicinal plants influence human life and culture. (CT - 1,3,4,5,6, W&CR – 2,3,4,6,7, RC – 1,4) (GLG 2, 4)	X	X	X	X
Students will implement speaking and listening skills in the articulation and discussion of the usage of medicinal plants. (SL – 1,2,3,4,5,7) (GLG 1, 3)	X			X
Students will read, reconstruct, differentiate, and critique arguments concerning the usage of medicinal plants from diverse cultural and historical perspectives. They will also generate their own arguments concerning the significance of medicinal plants and plant products in different cultures. (CT – 1,3,4,5,6, W&CR – 2,3,4,6,7, SL – 1,2,3,4,5,7, RC – 1,4) (GLG 1, 2)	X	X	X	X

Date approved by the department or school: 3-22-2016

Date approved by the college curriculum committee: 4-15-2016

**Date approved by the Honors Council (*if this is an honors course*): Not
Applicable Date approved by CAA: 4-21-2016 CGS: 5-3-16**