

PERS 2490 – HISTORY AND USE OF MEDICINAL PLANTS**SPRING SEMESTER 2019***Instructor:* Dr. Carter*Office:* BC 1105 *Telephone:* (229) 333-5759, ext. 5763*e-mail:* Please use the mail tool in BlazeVIEW.*Office Hours:* BC 1040 or BC 1105

Mon. & Wed., 12:00 – 12:50 PM; Thurs., 1:00 – 1:50 PM

Other times by appointment

Weekly Course Schedule

Mon	Lecture	11:00 – 11:50 AM, BC 1025
Wed	Lecture	11:00 – 11:50 AM, BC 1025

Course description. A brief history of medicinal plants from prehistory to the present. The course examines the use of herbal and non-timber forest products found locally and in different cultures and countries. The course defines social, economic, and ecological importance of botanicals worldwide along with exploring their biological uses and plant chemistry. Zoopharmacognosy is also introduced.

[2-0-2]

Contact hours: 110 mins lecture X 15 lectures = 1650 mins (27.5 hrs)

Credit: 2 semester hrs

Course objectives. Upon completion of this course, the student will be able to:

1. identify plants and botanical products used medicinally during prehistory and during various historical periods;
2. describe plant chemicals and their botanical sources, which may be toxic or curative;
3. cite significant botanical discoveries of medicinal importance;
4. explain the significance of protecting medicinal biodiversity and knowledge;
5. explain how non-timber forest products affect social, economic, and ecological systems locally and in different cultures and countries; and
6. describe the implications of zoopharmacognosy.

Valdosta State University General Education Outcomes met by this course

Students will demonstrate cross-cultural perspectives and knowledge of other societies.

Students will express themselves clearly, logically, and precisely in writing and in speaking, and they will demonstrate competence in reading and listening.

Students will demonstrate the ability to analyze, to evaluate, and to make inferences from oral, written, and visual materials.

Required textsSumner, J. 2000. *The natural history of medicinal plants*. Timber Press: Portland, Oregon. **(MP)**Joseph, J. A., D. A. Nadeau, and A. Underwood. 2002. *The color code: A revolutionary eating plan for optimum health*. Hyperion: New York. **(CC)****Course Requirements and Policies**

Use of BlazeVIEW as a course supplement. Blaze-VIEW will be used to make a variety of course resources and materials available, to administer certain assignments and assessments, and to post announcements and grades. Students should log onto BlazeVIEW daily in order to check for course announcements and to take course assessments. Also, the Mail tool in BlazeVIEW provides a convenient means for students to contact one another and their instructor and is the preferred means of communicating about matters relating to the course. To access BlazeVIEW, select the BlazeVIEW link under Quick Links on the left side of the Valdosta State University homepage. Students experiencing technical difficulties using BlazeVIEW should seek assistance through the VSU Microcomputing & System Services HELP-Desk located in Odum Library (telephone 245-4357).

Academic integrity. Students are encouraged to work together and to learn from one another in an appropriate manner.

Cooperation among students is especially encouraged in leading chapter discussions and in study outside of lecture. However, students should bear in mind that most work ultimately must be done individually and independently. All examinations and tests are given to students individually and are to be completed independently. Cooperation by students on tests or examinations is prohibited and constitutes cheating. Unless otherwise indicated, tests and examinations are taken strictly from memory without use of textbooks, notes, etc. Unless otherwise indicated, assignments are to be completed individually and independently. Behavior contrary to these guidelines and contrary to the VSU Code of Conduct is prohibited and constitutes cheating. Plagiarism and cheating will not be tolerated and will be prosecuted to the full extent allowed by University policy and the law. Refer to the VSU Student Code of Conduct.

<https://www.valdosta.edu/administration/student-affairs/student-conduct-office/student-code-of-conduct.pdf>

Attendance, participation, and attitude. Attendance of all scheduled lectures and punctuality is expected. The student is responsible for all material missed regardless of the reason for absence. Normally, attendance will be taken *at least once* during each scheduled lecture period. Students departing from lecture early will be recorded as absent. Students more than 10 minutes late for a scheduled lecture period will be counted as absent.

Each three instances of unexcused tardiness will be counted as one absence. Tardiness will not be excused without a written explanation from the student, and a determination *by the instructor* that the reason for tardiness is valid. Requests for excused tardiness must be submitted to the instructor in writing within 24 hours of the beginning of the period during which the student was late. It is the student's responsibility to initiate such requests.

In order to have an absence excused, the student must provide a written explanation with proper documentation immediately upon returning to class. Based upon the written explanation and the associated documentation, *the instructor will determine whether the reason for absence is valid, and absences will be excused (or not) accordingly.* In accordance with Valdosta State University Absence Regulations, students absent from more than 20% of the regularly scheduled lecture periods are subject to failure in the course.

<http://catalog.valdosta.edu/undergraduate/academic-affairs/>

Points will be deducted from the final course grade for excessive unexcused absence or tardiness, and inadequate participation and cooperation.

Conduct. Students are expected to comport themselves courteously at all times during lecture. Disruptive behavior will not be tolerated, and students behaving in a disruptive manner will be removed from the classroom and referred to the Dean of Students for disciplinary action. Refer to the VSU Student Code of Conduct.

<https://www.valdosta.edu/administration/student-affairs/student-conduct-office/student-code-of-conduct.pdf>

Students should be punctual for scheduled lecture. Except in special situations (i.e., emergency), students should not depart from lecture before being dismissed. Students anticipating early departure from lecture should inform their instructor of this prior to the beginning of lecture and seat themselves near an exit. Students are to direct their full attention to lecture and class discussions and are to refrain from unwarranted discourse. Behavior contrary to these guidelines is disruptive and may result in lowering of the final grade.

Valid identification. It is the student's responsibility to have her/his VSU identification card in his/her possession at all times

during lecture and exam periods. Normally, each student will be asked to present her/his valid VSU photo-identification card in order to take an examination.

Consumption of food and drink. The distraction factor aside, food and drink in lecture present problems for maintenance of the building. Therefore, the consumption of food or drink (including water) is absolutely prohibited during lecture. Bear in mind that food items or drink containers on desks, tables, chairs, etc. in lecture rooms create the appearance that these items are being consumed and will be treated accordingly by your instructor.

Use of cellular telephones, pagers, and other such devices. Use of cellular telephones, pagers, or any similar remote communication device is not permitted during scheduled lectures, labs, or examinations. If students bring cellular telephones or similar devices to lecture, it is their responsibility to switch them off prior to the beginning of the lecture period. Ringing, buzzing, or any other sounds emitted from such devices will be treated as disruptive behavior on the part of the owner/possessor, and the owner/possessor will be asked to leave lecture or lab immediately.

General suggestions. Regular attendance of scheduled lecture and daily preparation and review are essential for success. Students should prepare for each lecture and discussion by reading the assigned sections from the textbook and any additional supplementary material made available by the instructor. Students should bring their textbooks to each scheduled lecture period, since content from the texts will be drawn upon during discussions. Notes should be taken regularly during discussions and should be used along with the texts to study for the final examination.

Students with disabilities. Students requiring class-room accommodations or modifications because of documented disabilities should discuss this need with their professor at the beginning of the semester. Disabled students who are not registered with the Access Office for Students with Disabilities should contact the Access Office, Farber Hall, telephone 229/245-2498 (V/VP) and 229/219-1348 (TTY).

SPECIFIC COURSE REQUIREMENTS

Class participation and discussion. Students are expected to participate in all classroom activities and to be actively engaged in class discussion. Evidence of engagement will include general contribution to classroom discussions, asking relevant questions, and responding appropriately to instructions and questions. Obviously, attendance of class and remaining awake during class are essential for class participation. Class participation and discussion account for 15% of the course grade, and points will be deducted for unexcused absence and tardiness.

Chapter presentation. Working individually or in small groups, each student will be assigned at least two chapters, one from each of the two texts, and will be responsible for thoroughly and completely reviewing the chapter content, highlighting interesting, and important topics in the chapter, and leading a general class discussion on the content. These chapter reviews/discussions should be centered on significant facts, concepts, and questions presented in the assigned chapter. Additional pertinent information may also be included. Creativity and the use of audio-visual aids are encouraged. Students will be graded on content, organization, accuracy, and clarity of presentation. Thorough coverage of the chapter content is expected. If more than one student is assigned the same chapter, then each is expected to collaborate and participate and fully in all aspects of preparation, organization, and leading the discussion of the chapter content. For each chapter, the presenter(s) will be responsible for preparing a document in MSWord citing the significant facts, concepts, and questions, which will be posted by the instructor on the course page (BLAZEView). The chapter presentation accounts for 15% of the course grade.

Oral report. Each student will make an individual oral report on a selected medicinal herb, edible plant or culinary herb. The student will choose as a subject a fruit, nut, vegetable, culinary herb, medicinal herb, alga, or fungus with which s/he is unfamiliar, and conduct research to gain basic knowledge of and personal experience with this new plant and its *beneficial use* or medicinal properties to *enhance* human health. **Students are cautioned against selecting subjects that are harmful, or plants or other materials that are illegal to possess or consume; any violation of this policy will result in failure in the course.** The oral report should be 8-10 minutes long, and it should include a photograph or illustration, common name, scientific name, and family name of the subject, its historical or current use, growth habit (i.e., whether a tree, shrub, vine, or herb), part of the plant used (e.g., root, stem, leaf, etc.), how the subject is beneficial, and, where applicable, its major chemical constituents and the mechanism of action. Describe your sensory experiences consuming this new food item or culinary or medicinal herb, and your overall impression of the experience. The oral report accounts for 15% of the course grade.

Daily journal. Students will be required to keep a daily journal. Journal entries will be posted via the Assignments tool found on the dropdown menu under the Assessments link at the top of the BLAZEVIEW course page. Journal entries will be based upon the 3 – 2 – 1 assessment method. After class each student must post a journal entry. Each journal entry will consist of **three (3) facts, two (2) concepts, and one (1) question**, related to the

particular day’s lesson. The facts, concepts, and questions posted for each journal entry should be integrated, i.e., logically related to one another. In order for the student to receive credit, each chapter journal entry must be posted before or by 11:59 PM on the Sunday following discussion of the chapter in class. Journal entries will be evaluated based upon completeness, relevance, and clarity. Collectively, the journal entries account for 15% of the course grade.

Citizen science service learning. Each student will be required to participate in a citizen science service learning project transcribing data from 100 plant specimen labels on-line through Notes from Nature (NfN). Your instructor will provide detailed instructions about procedures for registering an account with NfN and proper execution and completion of this project. Citizen science service will account for 15% of the course grade.

Final examination. One examination will be given during the final exam period. The final examination accounts for 25% of the course grade. The final exam will be open-book essay format and must be completed using an examination booklet, i.e., “Blue Book.” The examination booklet may be purchased in the VSU bookstore for a nominal price. It is each student’s responsibility to purchase the larger format booklet (approximately 8½ x 11 inches) and bring it to the final exam session.

Grading. A 10-point scale is normally used (i.e., 90–100=A; 80–89=B; 70–79=C; 60–69=D; <60=F) in determining the final course grade, and the final course average calculated as follows.

<i>Class participation and discussion</i>	15%
<i>Chapter presentation</i>	15%
<i>Daily journal</i>	15%
<i>Oral report</i>	15%
<i>Citizen science project</i>	15%
<i>Final examination</i>	<u>25%</u>
Total	100%

Completion of assigned chapter presentations and oral reports are course requirements, and in order to pass the course each student must complete the assigned chapter presentations and the oral report. Meeting the minimum point requirement for a letter grade does not necessarily insure that the student will receive that grade. Assignment of the final grade is the prerogative of the instructor and will be based upon each individual student’s overall performance, including patterns of consistency, trends toward improvement, and attitude as shown through attendance, participation, and cooperation.

COURSE OUTLINE WITH ASSIGNED READINGS FROM TEXTS

Week 1

Monday, 14 January

Orientation and introduction: Syllabus review / What is a plant?

Wednesday, 16 January

Introduction: Basic plant classification / Basic structure of the plant body

Week 2

Monday, 21 January

MLK Holiday

Wednesday, 23 January

The Hidden Power of Plants

<https://www.youtube.com/watch?v=nuCDSFK8aTg>

Week 3

Monday, 28 January

MP, Chapter 1 – A Brief History of Medicinal Botany

Wednesday, 30 January

MP, Chapter 2 – Acquiring Knowledge

Week 4

Monday, 4 February

MP, Chapter 3 – Medicinal Plants in Nature

Wednesday, 6 February

MP, Chapter 4 – Toxins and Cures

Week 5

Monday, 11 February

MP, Chapter 5 – Defensive Strategies and Plant Chemistry

Wednesday, 13 February

MP, Chapter 6 – Significant Discoveries

Week 6

Monday, 18 February

MP, Chapter 7 – Zoopharmacognosy and Botanical Toxins

Wednesday, 20 February

MP, Chapter 8 – Chemical Prospecting and New Plant Medicines

Week 7

Monday, 25 February

MP, Chapter 9 – Protecting Medicinal Biodiversity and Knowledge

Wednesday, 27 February

MP, Chapter 10 – Herbal Histories, Considerations, & Caveats

Week 8

Monday, 4 March

Tour of the VSU herbarium

Wednesday, 6 March

CC, Chapter 1 – Think Health – Think Color!

Midterm: Thursday, 7 March

Week 9

Monday, 11 March

CC, Chapter 2 – Red

Wednesday, 13 March

CC, Chapter 3 – Orange-Yellow

Last day to withdraw without penalty: Thurs., Mar. 14

Spring Break Week

Monday, 18 March – Friday, 22 March

Week 10

Monday, 25 March

CC, Chapter 4 – Green

Wednesday, 27 March

CC, Chapter 5 – Blue-Purple

Week 11

Monday, 1 April

CC, Chapter 6 – The Color Code Eating Program

Wednesday, 3 April

The Seedy Side of Plants

<https://www.youtube.com/watch?v=FxxQkslewT0>

Week 12

Monday, 8 April

CC, Chapter 7 – The Truth in Black and White

Wednesday, 10 April

CC, Chapter 8 – The Color Code Recipes

Week 13

Monday, 15 April

Oral Reports

Wednesday, 17 April

Oral Reports

Week 14

Monday, 22 April

Oral Reports

Wednesday, 24 April

Oral Reports

Week 15

Monday, 29 April

Oral Reports

Wednesday, 1 May

Oral Reports

Week 16

Monday, 6 May: Last Day of Class

Oral Reports

Final Exam: Thursday, 9 May: 10:15 AM–12:15 PM