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## PERS 2490 – HISTORY AND USE OF MEDICINAL PLANTS

MAYMESTER 2011

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*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

Monday through Friday, 11:00 AM – 12:00 Noon

Other times by appointment

### *Weekly Course Schedule*

Monday	Lecture	9:00 – 10:50 AM, BC 1025
Tuesday	Lecture	9:00 – 10:50 AM, BC 1025
Wednesday	Lecture	9:00 – 10:50 AM, BC 1025
Thursday	Lecture	9:00 – 10:50 AM, BC 1025
Friday	Lecture	9:00 – 10:50 AM, BC 1025

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**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 texts**

Sumner, 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**

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**Use of BlazeVIEW as a course supplement.** BlazeVIEW 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 Student Code of Conduct in the VSU *Student Handbook Volume III*:

<http://www.valdosta.edu/studentaffairs/StudentHandbook.shtml>.

**Attendance, participation, and attitude.** Attendance of all scheduled lectures and punctuality are 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.

One lecture session during the three-week Maymester term is equivalent to one week of class during the regular 15-week semester. Thus, daily attendance and punctuality are essential. 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 on pages 91-92 of the *2010-2011 Under-*

*graduate Catalog*, students absent from more than 20% of the regularly scheduled lecture periods are subject to failure in the course:

<http://www.valdosta.edu/catalog/1011/ugrad/index.shtml>

*Points will be deducted from the final grade because of unexcused absences, inadequate participation, and/or poor attitude. A letter grade will be deducted from the student's final course average for each unexcused absence. Three unexcused absences account for 20% of the regularly scheduled lecture periods (cf. preceding statement about VSU absence regulations).*

**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 Student Code of Conduct in the VSU *Student Handbook Volume III*:

<http://www.valdosta.edu/studentaffairs/StudentHandbook.shtml>.

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.

#### **SPECIFIC COURSE REQUIREMENTS**

**Class participation and discussion.** Students are expected to participate in all classroom activities and to become 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 a chapter from one 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 addressed in the chapter at hand. 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 participate fully in all aspects of the chapter presentation. 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 food, culinary herb or medicinal 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 5-7 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 Discussion tool in BlazeVIEW, and will be based upon the 3 – 2 – 1 assessment method. After class daily, each student will post a journal entry. Each journal entry shall consist of **three (3) facts, two (2) concepts, and one (1) question**, related to the current day's lesson. The facts, concepts, and questions posted for each journal entry should be integrated, i.e., logically related to one another. Each journal entry must be posted before 11:59 PM, for the student to receive credit. Journal entries will be evaluated based upon completeness, relevance, and significance. Collectively, the journal entries account for 15% of the course grade.

**Final examination.** One examination will be given during the final exam period. The final examination

accounts for 40% of the course grade.

**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>Final examination</i>	<u>40%</u>
Total	100%

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.

**Students with disabilities.** Students requiring classroom 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).

#### **COURSE OUTLINE WITH ASSIGNED READINGS FROM TEXTS**

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**Day 1: Thursday, 12 May**

Orientation and introduction  
What is a plant?  
Basic plant classification  
Basic structure of the plant body  
*The Hidden Power of Plants* (video)

**Day 2: Friday, 13 May**

Introduction to the herbarium  
*MP*, Chapter 1 – A Brief History of Medicinal Botany

**Day 3: Monday, 16 May**

*MP*, Chapter 2 – Acquiring Knowledge

**Day 4: Tuesday, 17 May**

*MP*, Chapter 3 – Medicinal Plants in Nature

**Day 5: Wednesday, 18 May**

*MP*, Chapter 4 – Toxins and Cures

**Day 6: Thursday, 19 May**

*MP*, Chapter 5 – Defensive Strategies and Plant Chemistry

**Day 7: Friday, 20 May**

*MP*, Chapter 6 – Significant Discoveries

**Day 8: Monday, 23 May**

*MP*, Chapter 7 – Zoopharmacognosy and Botanical Toxins

*Midterm – last day to withdraw*

**Day 9: Tuesday, 24 May**

*MP*, Chapter 8 – Chemical Prospecting and New Plant Medicines

**Day 10: Wednesday, 25 May**

*MP*, Chapter 9 – Protecting Medicinal Biodiversity and Knowledge  
*MP*, Chapter 10 – Herbal Histories, Considerations, and Caveats

**Day 11: Thursday, 26 May**

*CC*, Chapter 1 – Think Health – Think Color!  
*CC*, Chapter 2 – Red

**Day 12: Friday, 27 May**

*CC*, Chapter 3 – Orange-Yellow

**Monday, 30 May**

*Memorial Day Holiday*

**Day 13: Tuesday, 31 May**

*CC*, Chapter 4 – Green

**Day 14: Wednesday, 01 June**

*CC*, Chapter 5 – Blue-Purple

**Day 15: Thursday, 02 June**

*CC*, Chapter 6 – The Color Code Eating Program  
*CC*, Chapter 7 – The Truth in Black and White

**Final Exam**

Friday, 03 June: 8:00-10:00 AM

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