9-2002

PHAR 324.01: Medicinal Plants

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# TENTATIVE SCHEDULE - FALL 2002
## MEDICINAL PLANTS
### PHARMACY 324

**Instructor:** Rustem S. Medora, Ph.D. (SB #306)

**OFFICE HOURS:** After Class

Appointments Preferred

e-mail: medora@selway.umt.edu

**Text:**
"Tyler's Herbs of Choice: The Therapeutic Use of Phytomedicinals" (1999)

**Optional Texts:**

**Books on Reserve:**
2. Foster & Tyler "Tyler's Honest Herbal" (1999)
5. Ray & Ksir "Drugs, Society & Human Behavior" (1999) - Check PHAR 110
7. Russo "Handbook of Psychotropic Herbs" (2001)

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE/SUBJECT</th>
<th>DATE</th>
<th>LECTURE/SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues 9/3</td>
<td>History/Terminology</td>
<td>Sat 10/26</td>
<td>Field Trip to Bozeman</td>
</tr>
<tr>
<td>Wed 9/4</td>
<td>Homework, Study Chap 6, Ref #5</td>
<td>Tues 10/29</td>
<td>Plant Drugs/Urogenital System</td>
</tr>
<tr>
<td>Thurs 9/5</td>
<td>Harvesting &amp; Processing</td>
<td>Thur 10/31</td>
<td>EXAM II</td>
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<tr>
<td>Tues 9/10</td>
<td>Literature Research, Dr. Cathy Bartels</td>
<td>Tues 11/5</td>
<td>Holiday-Election Day</td>
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<tr>
<td>Wed 9/11</td>
<td>Homework, Study Chap 7, Ref #5</td>
<td>Thur 11/7</td>
<td>Plant Drugs Cont’d</td>
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<tr>
<td>Thurs 9/12</td>
<td>Putting a Drug on the Market</td>
<td>Fri 11/8</td>
<td>Outline of Term Paper Due</td>
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<tr>
<td>Tues 9/17</td>
<td>Ethnobotany &amp; Biodiversity</td>
<td>Tues 11/12</td>
<td>Flavors &amp; Spice</td>
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<tr>
<td>Thurs 9/19</td>
<td>Review of the Nervous System (NS)</td>
<td>Thurs 11/14</td>
<td>Flavors &amp; Spice</td>
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<tr>
<td>Tues 9/24</td>
<td>Plants That Affect the Autonomic &amp;</td>
<td>Fri 11/15</td>
<td>Report III Due</td>
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<td>Somatic NS</td>
<td>Tues 11/19</td>
<td>Functional Foods, Dr. Blackely Brown</td>
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<tr>
<td>Wed 9/25</td>
<td>Outline of Report I Due</td>
<td>Thurs 11/21</td>
<td>Herbal Remedies for Psychiatric</td>
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<td>Thur 9/26</td>
<td>CNS Stimulants From Plants</td>
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<td>Conditions, Dr. Ethan Russo</td>
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<td>Tues 10/1</td>
<td>CNS Depressants</td>
<td>Tues 11/26</td>
<td>Plant Drugs/Endocrine System</td>
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<tr>
<td>Thur 10/3</td>
<td>EXAM 1</td>
<td>Thurs 11/28</td>
<td>Holiday-Thanksgiving</td>
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<td>Fri 10/4</td>
<td>Report I Due</td>
<td>Tues 12/3</td>
<td>Oral Reports, Psychoactive Plants</td>
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<td>Tues 10/8</td>
<td>Systems of Traditional Medicine</td>
<td>Thurs 12/5</td>
<td>Oral Reports, Psychoactive Plants</td>
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<tr>
<td>Thurs 10/10</td>
<td>Integrated Medicine</td>
<td>Fri 12/6</td>
<td>Term Paper Due</td>
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<td>Mon 10/14</td>
<td>Last Day to Drop Classes</td>
<td>Tues 12/10</td>
<td>Oral Reports, Poisonous Plants</td>
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<td>Tues 10/15</td>
<td>Plant Drugs/Digestive System</td>
<td>Thurs 12/12</td>
<td>Oral Reports, Plants Used by</td>
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<td>Thurs 10/17</td>
<td>Plant Drugs/Respiratory System</td>
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<td>American Indians</td>
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<td>Tues 10/22</td>
<td>Plant Drugs Cont’d</td>
<td>Thurs 12/19</td>
<td>FINAL EXAM 10:10-12:10</td>
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<td>Thurs 10/24</td>
<td>Plant Drugs/Cardiovascular System</td>
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<td>Fri 10/25</td>
<td>Report II Due</td>
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MONTHLY REPORTS
PHARMACY 324 -- MEDICINAL PLANTS

Students must type one-page (or two double-spaced pages) monthly report on three (3) of the topics listed below. Reference citations must be included. The term paper is longer and comprehensive.

1. Complementary Methods of Therapy
   References:
   a. Steiner's "Folk Medicine" (on reserve)
   b. Micozzi's "Physicians Guide to Alternative Medicine" (on reserve)
   c. Kastner & Burroughs' "Alternative Healing" (reference section)
   d. Arvigo's audio cassette on "Alternative Medicine" New Dimension (on reserve)
   e. Andrews' "A Bibliography on Herbs, Herbal Medicine, Natural Foods & Unconventional Medical Treatment" (on reserve)
   f. Folder on Complementary Methods (on reserve)
   g. Lectures by speakers at the Mansfield Conference (1998)
   h. Takemi et. al. "Herbal Medicine: Kampo, Past & Present"
   i. Micozzi's "Fundamentals of Complementary & Alternative medicine" (on reserve)

2. The Herbal Regulatory Dilemma
   References:
   a. Tyler, V.E. "Herbs of Choice" Chapter 2
   b. HerbalGram #32, pages 18-24 & 58 and HerbalGram #39, pages 28-31
   c. Dietary Supplement Health & Education Bill of 1994 (on reserve)
   d. Tylers' "Honest Herbal" (on reserve)
   e. Medora, R. "DSHEA of 1994"
   f. HerbalGram #47 & 48

3. The Need for Conservation of Medicinal Plants
   References:
   a. Videos #9, 10, 11, 12, 14, 15, 17, 18, 19; Audio cassettes 1 & 3
   b. Plotkin's "Tales of a Shaman's Apprentice" & "Medicine Quest" (on reserve)
   c. Folder on Conservation (on reserve)
   d. Grifo & Rosenthal's "Biodiversity & Human Health"
   e. Balick, M.J. et al., "Medicinal Resources of the Tropical Forest" (on reserve)
   f. Balick & Cox's, "Plants, People & Culture" (on reserve)
   g. Cox's "Nafanua" (on reserve)

4. Functional Foods
   References:
   a. Audio cassette "Healthy Foods"
   b. Folder on Nutraceuticals (on reserve)
   c. RDA (on reserve)
   d. NRC's "Carcinogens & Anticarcinogens in the Human Diet"
   e. Nutrition & The Amazon Food Pharmacy (video on reserve)
5. **Flavors and Spices**
   References:
   a. "Essential Oils of Central and North America" (video on reserve)
   b. Folder on Flavors and Spices (on reserve)
   c. Gunther's "The Essential Oils" Volume 1-6 (Mansfield Library)
   d. Books in the Mansfield Library under the title "Aromatherapy . . . . ."
   e. "Illustrated Encyclopedia of Essential Oils" (on reserve)

6. **Hallucinogens**
   References:
   a. LSD/Ergot (video on reserve)
   b. "Murder, Magic and Medicine" (on reserve)
   c. Folder on Hallucinogens (on reserve)
   d. Check books by Richard E. Schultes
   e. Check books in the Mansfield Library under the title "Hallucinogens . . . ."

7. **Special Forest Products (Medicinal Species)**
   References:
   a. Steven Foster's "Forest Pharmacy" (on reserve)
   b. "Special Forest Products: Biodiversity Meets the Marketplace" (on reserve)
   c. Folder on Special Forest Products (on reserve)
   d. Check books in the Mansfield Library on this topic

8. **Intellectual Property Rights**
   References:
   a. "Biodiversity Prospecting: Using Genetic Resources . . . ." (on reserve)
   b. "Timber, Tourists & Temples" (on reserve)
   c. Folder on Special Forest Products (on reserve)
   d. Check books in the Mansfield Library and the Law Library on this topic

9. **Special Topics**
   Check with the instructor

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**NOTE:**

<table>
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<th>REPORTS</th>
<th>DUE DATES</th>
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<tr>
<td>Outline of Report 1</td>
<td>Wednesday, September 25, 2002</td>
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<td>Report 1</td>
<td>Friday, October 4, 2002</td>
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<td>Report 2</td>
<td>Friday, October 25, 2002</td>
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<td>Outline of Term Paper</td>
<td>Friday, November 11, 2002</td>
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<td>Report 3</td>
<td>Friday, November 15, 2002</td>
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<tr>
<td>Term Paper</td>
<td>Friday, December 6, 2002</td>
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VIDEOS ON RESERVE

1. The Opium Poppy VT07751
2. Aspirin/Willow VT07752
3. LSD/Ergot VT07753
4. Quinine VT07754
5. Digitalis VT07755
6. Belladonna/Mandragora VT07756
7. Coca VT07757
8. The Yew VT07758
9. Powerful Medicine VT02246
10. Jungle Pharmacy VT02733
11. Secrets of the Rain Forest VT04617
12. 20th Century Medicine Man
13. Essential oils of North & Central America VT03131
14. Plant Drugs, Healing Herbs & Phytomedicinals VT06615
15. Pharmacology & Therapeutic Application of Plant Drugs VT06614
16. Nutrition & The Amazon Food Pharmacy VT06616
17. Tropical Medicine in the Rain Forest VT06617
18. A Walk Through Aceer (Useful Plant Trail) VT06618
19. Ethnomedical Field Research in the Amazon VT06619
20. Presidential Lecture (Varro Tyler) VT07333
21. Edible Wild Plants VT02117
22. Poisonous Plants VT08464

AUDIO CASSETTES ON RESERVE

1. The Diversity of Life AT 04304/1996-05-10
2. The Medicine Garden
3. The Recovery of the Commons
Exams and Grading:* Grades will be based on two mid-term exams and a final, three monthly reports, a term paper (INSTRUCTOR MUST APPROVE THE TOPIC FOR THE TERM PAPER) and participation in class. At least one of the reports must be presented to the class orally. Participation in class discussions and attendance in all class-related activities is mandatory.

Students are required to take all exams on scheduled days and times. The first two exams are scheduled at regular class times.

<table>
<thead>
<tr>
<th>Exam</th>
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<tr>
<td>EXAM 1</td>
<td>20%</td>
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<tr>
<td>EXAM 2</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td>Monthly Reports (6x3)</td>
<td>18%</td>
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<tr>
<td>Term Paper</td>
<td>12%</td>
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<tr>
<td>Attendance/Participation</td>
<td>10%</td>
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P/NP: A “C” grade is a passing grade in the P/NP option.

Field Trips: Three field trips are being planned on the weekends in September and October. Students must participate in at least one field trip. Tentative dates for field trips are September 20, October 26, and November 15, 2002.

*Graduate Students: Graduate students will be graded separately and must maintain scores in the upper 20% of the class. They must write a COMPREHENSIVE TERM PAPER including an extensive bibliography.

Time/Commitment: You will need to devote extra time to view the displays, watch the movies, and participate in afternoon or weekend field trips.

LAST DAY TO DROP THE CLASS IS MONDAY, OCTOBER 14, 2002

Important Dates: 10/3 Exam I
10/31 Exam II
12/19 Final Exam