The objective of this course is to provide an integrated scientific knowledge of plants used in the diversity of cultures that exist in the United States and elsewhere. Plants are fundamentally necessary to humans in that they provide air, food, medicine, and the foundation of many cultural practices, both aesthetic and essential. Plants have a basic economic importance as food, clothing and medicinal commodities; however, despite this basic importance of plants to all aspects of life on this planet, most students graduate without understanding the importance of plants to every aspect of their life. Different cultural contexts of plant use provide the opportunity to explore the role of plant use in different ethnic groups. The basic focus of this class will be from a biological/ecological perspective, covering the importance of DNA, cellular processes, physiology, ecology and evolution but will include a strong integration of culture, economics, and medicine. The nature of the material will result in an introduction to biology, ecology, and chemistry.

**Text book:** Plants and Society. Sixth Edition; Estelle Levetin and Karen McMahon

**Grading:**
Thirteen weekly lab quizzes, 10 points each, low score dropped: 120 points
Two lab midterms: (100 points each): 200 points total
One final lab project (25 points): 25 points total
Two lecture mid-term exams (100 points each): 200 points total
One COMPREHENSIVE final (150 points): 150 points total

**TOTAL: 695 points**

The grading scale will be 90-100% = A, 80-89% = B, 70-79% = C, etc. Occasional exceptions will be made to this policy if you show substantial improvement from the midterms to the final examination.

**Exams:** The exams will be in multiple choice. The exams will include material from both the lectures and reading, although they will emphasize lecture material. The exam cover material at the level addressed in lecture. NOTE: The exams will include information ONLY covered in lecture (i.e. not included on the slides) to encourage class attendance!

**Learning outcomes include knowledge of the following:**
- Cellular processes in all living things and why it matters
- The major vegetable, fruit, herb, and spice plants.
- The uses of wood and fiber plants and plant extracts.
- The historical and present uses of medicinal and euphoric plants.
- How and why plants make secondary compounds that are used by humans.
- The concepts and techniques of plant breeding and genetic engineering.
- The economic importance of major plant groups
- The importance of different cultural uses of plants
- Why the conservation of plant diversity in both agriculture and wildland contexts is important to the sustainability of life on Earth.
- The careful observation, curiosity and thought about plants in human existence.
- Traditional and modern methods of agriculture.
- The role of natural and artificial selection (evolution) in plant economics and ecology.
- The major plant textiles and how they are used.
- Poisonous compounds found in plants and their effects.
- How plants are used in beverages such as beers, coffee, tea, wine, chocolate, etc.
- The major plant oils, both agriculture and therapeutic, and their histories.

**Lecture Schedule**

**Week of:**
26 August  An introduction to plant groups, flowers and fruit
            Reading: Chapter 5, 70-72; Chapter 6, 85-95
2 September Plant evolution, introduction to plant cells **NOTE: No lab this week.**
            Reading: Chapter 2, 18-23
9 September  Plant Cells – Plant Physiology and Structure  
   Reading: Chapter 2, 18-23; Chapter 3, 29-39
16 September  Origin of agriculture, crop plants  
   Reading: Chapter 11, 172-174; Chapter 14, 219-228
23 September  Fermentation, Alcoholic beverages  
   Reading: Chapter 24, 426-438

**NOTE:** Midterm exam #1: Wednesday, 28 February

30 September  Ethnobotanical uses of medicinal plants, pharmaceutical discovery, and poison  
   Reading: Chapter 19, 322-326; Chapter 20, 342-359; Chapter 21, 362-368

7 October  Fiber, Dyes  
   Reading: Chapter 18, 297-308
14 October  Plant Structure, Wood  
   Reading: Chapter 18, 308-319
21 October  How drugs are made  
   Reading: Chapter 16, 262-270
28 October  Flour, Grains, and Legumes  
   Reading: Chapter 12, 184-185; Chapter 13, 206-214
4 November  Ecological importance of plants  
   Reading: Chapter 26, 463-468
11 November  Plant knowledge and forensics  
   **NOTE: No lab this week**  
   Reading: Chapter 11, 175

**NOTE:** Midterm exam #2: Wednesday, 1 May

18 November  GMOs, Food  
   Reading: Chapter 15, 246-248
25 November  **THANKSGIVING BREAK – think about the origins of your food!**
2 December  Spices  
   Reading: Chapter 15, 246-248
9 December  Socioethnobotany
17 December  **COMPREHENSIVE FINAL - TUESDAY, 10-11:50.**

**Academic dishonesty** in any form will be immediately referred to Student Judicial Affairs. This includes plagiarism, failing to provide proper credit for an idea, copying or borrowing coursework from another student, paraphrasing someone else’s idea without acknowledging the source, copying answers from your text, etc. Another form of plagiarism involves copying text from another source, modifying a few words, and claiming it as your own. There will be no credit awarded for any assignment that involves even a hint of plagiarism. Go out of your way to not be tempted and to not tempt anyone else. There are no group assignments in this course. Every word you write should be your own. Additional information on academic integrity is available in the Code of Students Rights and Responsibilities, which is available from www.csuchico.edu/sjd.

**Students with disabilities:** CSU, Chico acknowledges each student’s unique set of abilities and limitations, and works to provide all students with an enriching educational experience. If you are disabled, contact Disability Support Services (www.csuchico.edu/dss or Student Services Center 170 or 898-5959) and notify me as soon as possible.