

PELLISSIPPI STATE COMMUNITY COLLEGE
MASTER SYLLABUS

**FUNDAMENTALS OF BOTANY I
BOT 1010**

Class Hours: 3.0

Credit Hours: 4.0

Lab Hours: 1.0

Date Revised: Spring 2011

Catalog Course Description:

Introduction to taxonomy through tree identification, basic organization and function of cells, respiration, photosynthesis, genetics (including meiosis, mitosis, Mendelian inheritance), survey of plant kingdom (bacteria, algae, fungi, mosses, ferns, conifers, and flowering plants).

Entry Level Standards:

Completion of all developmental course requirements.

Prerequisites:

None

Textbook(s) and Other Course Materials:

Text: *Introduction to Plant Biology*, Bidlack & Jansky 2011 OR utilize the readings posted in the course web site.

Lab: *Peterson Field Guides: Eastern Trees*, George A. Petrides, Houghton Mifflin Co. OR an equivalent tree guide (other lab materials are available through the course web site)

I. Week/Unit/Topic Basis:

Week	Topic
1	Introduction & Plant Cells
2	Membranes & Tissues
3	Roots, Stems & Secondary Growth
4	Exam; Leaves
5	Food & Reproduction
6	Flowers & Chemistry
7	Exam; Energy
8	Photosynthesis & Respiration
9	Sugar & Mendelian Genetics

10	Biotechnology & DNA
11	Evolution & Classification
12	Exam; Prokaryotes
13	Protista
14	Fungi & Nuts
15	Final Exam Period

II. Course Goals*:

The course will:

- A. Guide students to understand the structure and function of plants. (V.3, V.4)
- B. Enhance the student's knowledge of how plants have influenced the history of mankind. (V.5)
- C. Enhance the student's ability to describe and identify local flora. (V.1)
- D. Enhance the student's ability to conduct, analyze and evaluate experiments involving plant reproduction and plant physiology, (V.1, V.2, V.3)
- E. Enhance the student's knowledge of various horticultural skills. (V.4, V.5)

*Roman numerals after course objectives reference the TBR general education goals for the Natural Sciences.

III. Expected Student Learning Outcome*:

The student will be able to:

1. Name, label and define the morphological structure of plants. Name, describe and summarize the physiological processes of plants. (A)
2. Explain and analyze how various plants and plant products have impacted human social and political development. (B)
3. Analyze, categorize and name species of the local flora. (C)
4. Use experimental results to demonstrate, compare and explain aspects of plant reproduction and physiology. (D)
5. Use, demonstrate and apply principles and techniques to horticultural problems. (E)

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

IV. Evaluation:

A. Testing Procedures: 68% of grade

Four exams worth 100 points each. Twenty five vocabulary quizzes worth 5 points each.

Exams are a combination of multiple choice, matching, identification and short answer.

B. Laboratory Expectations: 32% of grade

During lab, students will conduct activities related to that week's topic. Activities may include the observation of plants and their structures, conducting of experiments related to plant function, and an introduction to various local plant species.

Weekly lab activities will be evaluated by quizzes or collected work (120 points). A formal lab report will be written for one lab activity (25 points). A laboratory project worth 50 points will be assigned for the semester. A plant identification test for the local plant species covered will be given (50 points)

C. Field Work:

N/A

D. Other Evaluation Methods:

N/A

E. Grading Scale:

693 - 770 points = A

673 - 692 points= B+

616 - 672 points= B

596 - 615 points= C+

539 - 595 points= C

462 - 538 points= D

below 462 points= F

V. Policies:

A. Attendance Policy:

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic Affairs, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of Academic Affairs.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented

as one's own work.

- Taking an exam for another student.
- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

C. Accommodations for disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at <http://www.pstcc.edu/sswd/>.

D. Other Policies:

During laboratory, shoes with closed toes and closed heel must be worn. Students will not be allowed to attend laboratory without proper footwear. Classroom disruptions during the lecture, any form of communication during testing, or any other behavior that may prove distracting to others will not be tolerated and may lower the final grade. Students are expected to work on Botany related materials and participate in meaningful discussions. Visitors are not allowed in the classroom.