

Depaul University School for New Learning Loop Campus

SW 239 The Botanical World
Summer 2008 Tuesday/Thursday 6-9 pm

Instructor:

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Competences

S1A S2X S3B S4

Course Description:

All life is dependent on plants. Plants are responsible for producing the oxygen we breathe to the diseases that plague and occasionally kill us. The most applicable knowledge gained from the study of botany comes from understanding the relationship between humans and the plant world. This link is through our food consumption, the clothes we wear, their colors and patterns, the medicinal and pharmacological properties in plants, the homes we live in and the furniture we sit and sleep on, the musical instruments we listen to, and the aesthetic qualities of plants that permeate and refresh the human condition. Most people take these things for granted and never stop to realize that our most precious resource is the plants that make all life possible.

Recent scientific successes in the area of genetics and biotechnology, highlighted in the media, have made people aware of what has been done to plants over the past 50 years. Most of the world's food has been genetically altered for any number of reasons: increased agricultural productivity, longer shelf life, better taste, more or less of a particular chemical, mineral or fat component, size, color, or just a new food product altogether. This exciting field is fodder for controversy, concern and contemplation as it impacts us personally

While this is not a laboratory course, you will look at, and take apart real plants in and outside of the classroom. You will even grow some lower plants (molds) in your home. There will be one field trip to the Lincoln Park Conservatory and a walk around the loop area, weather permitting. This is an interactive class, as you will be expected to constantly be on the lookout for new revelations and connections between plants and their effect on your individual lives.

Text(s)

Stern, Kingsley R 2000. **Introductory Plant Biology**, (8th ed or later) required

Levetin, Estlle & Karen McMahon, 1999 or later. **Plants and Society**. (optional)

****USED or new books can be purchased at reduced costs online at ADDALL.COM or found in most public libraries. (8th is an older edition, not the latest)

Learning Experiences: (in class)

- Readings from the text and outside journals
- Observing the growth of plant specimens
- Slide presentations of plants/landscapes from various geographic regions
- Observation of the local environment with regard to the botanical components and its relationship to the built environment
- Class lectures and discussions
- Labs and fieldtrips with hands-on observation of plant parts with regard to form and function

Demonstration of Competences (Course requirements)

- Weekly Essay, (2) about the botanical world. Examine topics such as landscape, food, materials and household items, fashion and textiles, medicine and drugs, agriculture, ecology and art, including literature, film, painting, music or any other topic connected to plants. Length, as needed, document information sources. Investigate a different topic for each essay. Try to relate the material to the topics discussed in class.
- Oral presentation of an in-depth research project
- Five Botanic Mounts of plants found in your environment, not purchased plants

For any of these competences the student is **encouraged** to develop their own method of learning not offered by the instructor. All suggestions will be considered. A concise description may be presented verbally or in written format early in the quarter.

Criteria for Assessment:

Self Assessment: Each student will write a self assessment to be handed in with the final project/presentation. You will determine your level of understanding, dependence and connection to the botanical world based on the degree of learning gained over the quarter.

Instructor Assessment: The instructor will assess each student individually. The proficiency of the student will be judged on their ability to integrate and apply the concepts and principles of botany to their own environment. This is determined by your capacity to articulate verbally, in written form and in a collaborative or individual format. Learning in the classroom, from independent sources and accidentally is all within the realm of learning and assessment.

Grading:

Each student will write a brief abstract outlining how they intend to fulfill their competencies by the third week of class. Completion of the requirements for the chosen competencies will be graded on thoroughness, understanding and connection to the real world, and the student's ability to impart this information to others. A letter grade will be given unless a pass/fail is requested at the **beginning** of the quarter.

Weekly Assignments

16 Jun	Walk through Grant Park	
18 Jun	Evolution and taxonomy Essay one DUE	Stern: Ch 15, 16
23 Jun	Importance of plants to society. Plant uses in agriculture, medicine, environmental quality and forestry	Levetin/McMahon Ch 11 -14, 16-21
25 Jun	Plant growth and development Soils, water and nutrients Essay two DUE	Stern C 9 10, 11, 14
30 Jun	Growth hormones and movements Fungi, algae and bacteria Mounts DUE	Stern C 11 Stern C 17, 18, 19
2 Jul	Plant Parts, roots, stems and leaves LAB	Stern: C 5, 6, 7
7 Jul	Reproductive Structures: flowers, fruits, seeds and germination LAB	Stern C 8
11 Jul	Field trip Lincoln Park Conservatory	
9 Jul	Student final research presentations	
14 Jul	Student final research presentations	