Field Botany (Session 2: June, 5th – June 23rd 2017)

INSTRUCTOR: Dr. David Krayesky, Associate Professor of Biology
e-mail: david.krayesky@sr.edu, office hours: TBA


DESCRIPTION: A field class with a lecture component. The primary focus of the class is to enhance student understanding of the taxonomy and ecology of plant species occurring in western Pennsylvania. Plant groups that will be covered include: Flowering plants (woody angiosperms and common wildflowers), Conifers, Ferns & Fern allies, Bryophytes and Lichens. Plant terminology associated with general plant structure as well as general plant life cycles will be described. Students will generate a personal herbarium (a plant collection) of the plant species they encounter, during the course.

OUTCOMES: Upon successful completion of this course a student should be able to:

• Learn to recognize the major plant groups
• Identify common plant species of Western Pennsylvania using professional and amateur keys
• Learn how to preserve plants as herbarium specimens
• Learn plant terminology and understand the life cycles of the major groups of land plants
• Identify habitats in which we find specific species of plants
• Appreciate the structure and function of plants.

GRADING: Plant identification quizzes and a final lecture examination will account for 50% of your grade; your plant collection will account for the other 50%.
Note: You must be prepared to go outside for each class in order to collect plants or for lecture purposes. Hiking will be minimal, but wear old shoes/sneakers or hiking boots. We may go outside in the rain. You should carry a pocket knife with you, a small notebook, pen/pencil/marker, large plastic bag or plant press. Begin collecting newspapers, you will need them in order to press your plants.

I also expect that you will collect plants on your own time as well as during class time.

Plant collection: You will be required to hand in at the end of the session a collection of 25 herbarium specimens representing each of the major plant groups. These will be graded on quality of preservation, herbarium mounting technique including label information, and correct identification.

Places we visit to examine land plants in their local environment will include: McKeever Environmental Center, McConnell’s Mills State Park, Wolf Creek, Pymatuning State Park, Goddard State Park, Pine Swamp, Presque Isle State Park, Erie Bluffs State Park, Triangle Bog, Jamestown (NY) various areas within Slippery Rock, Grove City, and Wilmington Township.

Your final collection should include the following:

- 5 Bryophytes (mosses and liverworts) & lichens
- 3 Pteridophytes (ferns and fern allies)
- 2 Conifers
- 15 Flowering plants

You may collect more than the required number of Bryophytes, Ferns, Club Mosses, Lichens and Conifers and collect fewer Flowering plants.

Additional materials each student must provide:

1. Hand lens with at least 10x/15x magnification
2. Bottle of Elmer’s white glue
3. Newspapers for pressing and collecting plants
4. Plastic garbage bags for collecting plants
5. Permanent marking pen for labeling field collections
6. Cardboard as needed for plant presses