“Ecology & Flora of the Southwest”
in Arizona
Spring Break, 2-10 March, 2013

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Arizona course: Basic details

• PBIO 4/5080 (“Global Studies in Plant Biology”); PBIO 4850 is Tier III E

• Most activities in the Chiricahua Mountains and adjacent desert

• Ecological sampling, plant ID, data analysis \( \rightarrow \) community changes up elevational gradient

• UG prereqs: PBIO 211/1150 concurrent (“Diversity of Life”) or equivalent

• 20-24 students

• Priority: seniors > juniors > sophomores
We are here!

Southwest Research Station
Main Topics

- Plot sampling along transects, with cover estimates of each species, to characterize communities
- Identification of families, genera, and characteristic species in each community
- Empirical observations of community changes going from low-level desert up mountains to timberline
- Community processes and local factors promoting plant composition and diversity
Preparation

• Students must submit an application ASAP, no later than 12/1

• 3 mandatory 1-hour orientations during first half of spring semester, will cover Southwest US/Arizona geology and climate, land use, overview of natural communities, common plants, details of packing
Course Schedule

• Fly as a group to Tucson on Sat., 3/2 (lodge overnight at hotel)
• Sun. AM, 3/3--visit Arizona Sonoran Desert Museum and Saguaro National Monument; after lunch, drive to SWRS (stay 6 nts)
• Sun., 3/3-Tue., 3/5--study lowlands; exam 1 on Tue. afternoon
• Wed., 3/6-Fri., 3/8--study highland flora; exam 2 on Fri. afternoon
• Sat., 3/9--Drive to Tucson; group supper
• Sun., 3/10—fly back to Ohio
Typical Class Day

• 7:30am—Everybody up and ready
• 7:30-8:30am—Breakfast
• 8:30-12—Presentation by a group from previous day’s studies; mini-lecture on current day’s research, followed by field studies
• 12-1pm—Lunch (may be sack lunch if we go far from the station)
• 1-5pm—Field studies
• 5-6pm—Free time
• 6-7:30pm—Supper
• 7:30-8:30pm—Review
Climate and Dress

- Desert and lower elevations—high 70s to 80s
- Higher elevations—60s
- Sun can be pretty brutal → bring protective clothing, “layers”, hat, sunglasses, water bottle
- Expect cooler temps at night and have hoodie/lined windbreaker etc.
- Need protection against poisonous snakes, scorpions etc., and for rugged hiking: sturdy boots, taller socks
Accommodations and Meals

• Tucson housing in a hotel near the airport
• Chiricahua Mtn housing at the Southwest Research Station in dorm-style rooms with multiple beds; SWRS provides bedding and linens, free internet, in-ground pool!
• Meals at restaurants in Tucson, full room and board provided at SWRS
• I will cover $20 per person for a group “farewell” supper on Saturday evening
Course Administration

- You must be a full-time student in spring semester to participate.
- You MUST keep 4 credits (undergrad) or 5 credits (grad) free in spring semester.
- I will pre-register you for PBIO 4850 or 5850 for spring; juniors and seniors get Tier III credit.
- I will use your tuition to cover most of the course costs (everything except Tucson meals).
- Final grade on spring semester transcript.
Program Costs

Billed
• Program fee $450

Out of pocket
• Food money in Tucson 40
• Handlens 10

TOTAL $500
Packing

• ONE small or medium suitcase, duffle or backpack:
  – 2-3 sets of field clothes (long-sleeve shirts, long-sleeve pants)
  – 2-3 sets of casual clothes (t-shirts, shorts, 1 pr long pants for evening)
  – field boots, flipflops/sandals, undies
  – Swimsuit (if you want to use the pool)
  – Toiletries (plus any meds), insect stuff, sunblock
  – Sunglasses, hat
  – Hoodie sweatshirt, or sweater, or lined windbreaker

• Daypack, water bottle, handlens, camera