

**BZ 325 LECTURE SYLLABUS  
SPRING 2006**

JANUARY 17:

- introduction to systematics
- READING: chapter 1, pp. 1-11; chapter 4, pp. 55-62
- SLIDES: vegetative plant morphology

JANUARY 19:

- phylogenetic analysis [part 1]
- READING: chapter 2, pp. 13-39
- OPTIONAL READING: Kitching et al. (1998) chapter 1

JANUARY 24:

- READING: chapter 4, pp. 63-69, 75-80
- SLIDES: reproductive plant morphology

JANUARY 26:

- phylogenetic analysis [part 2]
- OPTIONAL READING: Fitch (1971), Schuh (2000:77-83)

JANUARY 31:

- plant life cycles
- READING: chapter 7, pp. 162-168, chapter 8, pp. 185-199
- OPTIONAL READING: Foster and Gifford (1974:39-49)
- SLIDES: pteridophytes

FEBRUARY 2:

- seed plant life cycles and relationships
- READING: chapter 7, pp. 168-173, chapter 8, pp. 199-213

FEBRUARY 7:

- phylogenetic analysis [part 3]
- OPTIONAL READING: Kitching et al. (1998) chapter 7, Schuh (2000:63-74)
- SLIDES: gymnosperms

FEBRUARY 9:

- origin of angiosperms
- READING: chapter 7, pp. 173-180, chapter 9, pp. 217-223

FEBRUARY 14:

- paleobotany
- OPTIONAL READING: Stewart and Rothwell (1993) chapter 2
- SLIDES: "Magnoliids"

FEBRUARY 16:

- anatomical characters
- READING: chapter 4, pp. 81-87
- OPTIONAL READING: Moore et al. (1991:62-79), Mauseth (1988:225-230)

FEBRUARY 21:

- plant nomenclature
- READING: appendix 1, pp. 511-519
- SLIDES: monocots 1

FEBRUARY 23:

- history of plant systematics [part 1]
- READING: chapter 3, pp. 41-52

FEBRUARY 28:

- history of plant systematics [part 2]
- SLIDES: monocots 2

MARCH 2:

- FIRST PRELIMINARY EXAM (on all material from January 17 to February 23)

MARCH 7:

- history of phylogenetic systematics
- SLIDES: monocots 3; early-diverging tricolpate dicots

MARCH 9:

- coding molecular characters [part 1]
- READING: chapter 5, pp. 105-113
- OPTIONAL READING: Wheeler (1994:323-332)

SPRING BREAK, MARCH 13 – 17

MARCH 21:

- phylogenetic analysis of molecular characters [part 2]
- SLIDES: rosids 1

MARCH 23:

- plastid, mitochondrial, and nuclear genomes
- READING: chapter 5, pp. 113-118
- OPTIONAL READING: Palmer (1992), Palmer and Delwiche (1998:392-402)

MARCH 28:

- breeding systems
- OPTIONAL READING: Briggs and Walters (1997)
- SLIDES: rosids 2

MARCH 30:

- speciation
- READING: chapter 6, pp. 121-133
- OPTIONAL READING: Grant (1981) chapter 9

APRIL 4:

- flower pollination
- READING: chapter 4, pp. 69-74
- SLIDES: rosids 3

APRIL 6:

- hybridization and introgression
- READING: chapter 6, pp. 133-143
- OPTIONAL READING: Rieseberg et al. (1996), Schwarzbach et al. (2001)

APRIL 11:

- polyploidy
- OPTIONAL READING: Grant (1981) chapters 22 & 23
- SLIDES: asterids 1

APRIL 13:

- SECOND PRELIMINARY EXAM (on all material from February 28 through April 6)

APRIL 18:

- biosystematics
- SLIDES: asterids 2

APRIL 20:

- paralogy, introgression, lineage sorting, and recombination
- OPTIONAL READING: Doyle (1992)

APRIL 25:

- geological history and biogeography
- OPTIONAL READING: Humphries and Parenti (1999)

APRIL 27:

- species delimitation
- READING: chapter 6, pp. 144-149
- OPTIONAL READING: Davis and Nixon (1992)

MAY 2:

- plant domestication
- OPTIONAL READING: Doebley (1992)

MAY 4:

- Catch up day

MAY 8 (Monday, 3:40 – 5:40 PM):

- CUMULATIVE FINAL EXAM (with emphasis on material from April 11 through May 4)