

INTRODUCTORY MYCOLOGY: BIOM 423

Fall 2010, 3 cr. LEC 2 LAB 1, PGC, Rm 214, M W 1:00-4:00 (1 hr lecture and 2 hr lab), field trips.
 Instructor: Dr. Cathy Cripps, Plant Sciences, office: 309 Plant Bioscience Bldg, Lab: 109 PBB.
 Tele: 994-5226, Email: Ccripps@montana.edu Office hours: any time, call for appt. or stop by.

Text: Readings & webpages as assigned; *Mushrooms Demystified* by Arora (field guides will be available in class)

This course surveys the incredible diversity of fungi, including all major groups with emphasis on structures, life cycles, and identification. The recent explosion of knowledge relating to fungi in research, medicine, agriculture, biotechnology, and industry, all have a basis in traditional mycology.

	Lecture	Lab	Reading
M Aug 30	Introduction: the Fungal Lifestyle	Movie, or movie clips	D2L, Web
W Sept 1	Phylogeny of Fungi	Microscopic technique	D2L, Web
W Sept 8	BASIDIOMYCOTA introduction	tissue culture, spore prints	D2L, Web
M Sept 13	Fleshy Basidiomycota	dichotomous keys	D2L, Web
W Sept 15	Mushroom Families (Agaricales, Russulales, Boletales)	Mushroom ID Field trip (time to be determined)	D2L, Web
M Sept 20*	White-spored Mushrooms	Mushroom ID	D2L, Web
W Sept 22	Dark-spored Mushrooms	Mushroom ID	D2L, Web
M Sept 27*	More on Mushrooms	Work on collections	D2L, Web
W Sept 29	Stomach Fungi (Gasteromycetes)	morphology vs. molecular data	D2L, Web
M Oct 4*	Fungi with pores, teeth, etc (Aphyllophorales)	Polypores & allies, decomposition, ecology	D2L, Web
W Oct 6	Edible & Poisonous Mushrooms	Jelly fungi: phylogenetic anomalies	D2L, Web
M Oct 11	TEST 1: 1 specimen due for collection	Work on collections	
W Oct 13	Rusts (Uredinales)	Rust ecology	D2L, Web
M Oct 18	Smuts (Ustilaginales)	Smut and plant disease	D2L, Web
W Oct 20	Mycorrhizae: basis of terrestrial biomes	Mycorrhizal techniques	D2L, Web
M Oct 25**	Fungal Ecology	Animal-Fungal interactions	D2L, Web
W Oct 27	ASCOMYCOTA introduction	general groups - new phylogenies	D2L, Web
M Nov 1	Asexual Ascomycetes	'Deuteromycetes', isolation, culture, ID	Lab book, D2L
W Nov 3	Asexual Ascomycetes	'Deuteromycete' ID: computer use	Lab book, D2L
M Nov 8 *	Yeasts & Plectomycetes	Asco ID(cleistothecia), morphology vs molecu	D2L, Web
W Nov 10	Pyrenomycetes-flask fungi	Asco ID (perithecia), Loculoascomycetes	D2L, Web
M Nov 15	TEST 2: 2 specimens due, collection	Work on collections	
W Nov 17	Discomycetes (& Loculoascomycetes)	Cup fungi, morels, and truffle ID (apothecia)	D2L, Web
M Nov 22	ZYGOMYCOTA - sugar fungi	Zygomycota ID	D2L, Web
M Nov 29	CHYTRIDIOMYCOTA - aquatic fungi	Frogs, fish eggs and parasitic Fungi	D2L, Web
W Dec 1	Fungal imposters: Oomycota	Oomycota environmental samples	D2L, Web
M Dec 6	Slime molds	Plants, animals, fungi, or protists?	D2L, Web
W Dec 8	Evolutionary Overview of the Fungi	Cook & taste-Edible Fungi; Collection Due	D2L, Web
F Dec 17	FINAL EXAM 8-10 am !	Not cumulative, last third of course	

Grade: *5 Quizzes (lowest grade dropped) = 20% 10 pts. x 4 = 40 pts
 **take home quiz on rusts/smuts due (required)
 3 Written exams *plus* lab questions = 60 % 40 pts. x 3 = 120 pts
 Fungal Collection = 20% 8 pts. x 5 = 40 pts Total = 200 pts