

Syllabus
Biology of Microfungi (BOT 358)
Fall 2016

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Office Hours: Monday & Wednesday 2-4 pm; after Oct. 14 Tuesday & Thursday 1-3 pm;
or by appointment

Meeting Times: Lecture: Tues/Thurs 11-11:50 am, Science B 128

Lab: Tues/Thurs 2-4:50 pm, Science B 128

Required Online Textbook: *Digital version:* Introduction to Fungi (2007), 3rd Edition, J. Webster & R.W.S. Weber. Available online on BOT 358 Moodle site.

Required Lab Equipment: Fine forceps, 2 needle probes, notebook for drawing (unlined), drawing pencils; 10X hand lens (note: slides, coverslips, razorblades, reagents, and culturing equipment will be provided).

Course Format: The course consists of two lectures and two labs per week. This 2-unit course ends mid-semester (Oct. 14). Lectures will cover life histories, systematics, ecology, genetics, and practical applications of two major phyla of Kingdom Fungi, the *Chytridiomycota* and *Zygomycota*, asexual conidial fungi (predominantly *Ascomycota*), as well as protistan fungi, including the major slime molds (*Myxomycetes* and *Dictyosteliomycetes*) and water molds (*Oomycota*). Laboratories will focus on anatomy, morphology, and taxonomy of these organisms, and will include class projects. Cultures of *Dictyosteliomycetes* and *Oomycota* obtained from nature will be examined over the duration of the course.

Field Trips: Brief excursions will be made to the Arcata Community Forest during lab time to facilitate lab projects.

Moodle: Regular use of Moodle is REQUIRED of all students in BOT 358. Lecture outlines, powerpoint presentations, lab manuals, handouts, announcements, and other items will be available, usually exclusively, through Moodle.

Examinations: There will be two lecture examinations, two lab quizzes, and one lab practical. The content of exams will cover the preceding series of lectures as well assigned readings from the textbook, and assigned readings outside of the textbook. The content of the lab quizzes and practical will be based on materials observed in the preceding labs, and aspects of projects.

Readings: Readings will be assigned from the textbook, and you are responsible for this material. Periodically, readings from the primary mycological literature will be assigned. Questions regarding all assigned reading material will appear on the lecture exams.

Lecture Schedule:

T	23	Aug	Introduction
Th	25	Aug	<i>Myxomycetes I</i>
T	30	Aug	<i>Myxomycetes II</i>
Th	1	Sept	<i>Dictyosteliomycetes I</i>
T	6	Sept	<i>Dictyosteliomycetes II</i>
Th	8	Sept	<i>Oomycota I</i>
T	13	Sept	<i>Oomycota II</i>
Th	15	Sept	<i>Chytridiomycota I</i>
T	20	Sept	Lecture Examination #1
Th	22	Sept	<i>Chytridiomycota II</i>
T	27	Sept	<i>Zygomycota I</i>
Th	29	Sept	<i>Zygomycota II</i>
T	4	Oct	Conidial fungi I
Th	6	Oct	Conidial fungi II
T	11	Oct	TBA
Th	13	Oct	Lecture Examination #2

Laboratory Schedule:

T	23	Aug	Organization; introduction to <i>Myxomycetes</i>
Th	25	Aug	<i>Myxomycetes</i> : life history of <i>Physarum polycephalum</i> ; ordinal taxonomy
T	30	Aug	<i>Myxomycetes</i> & <i>Oomycota</i> : field collection, Arcata Community Forest
Th	1	Sept	<i>Myxomycetes</i> : ordinal taxonomy; <i>Oomycota</i> : isolation from nature
T	6	Sept	<i>Dictyosteliomycetes</i> : isolation from nature
Th	8	Sept	<i>Oomycota</i> : water molds, plant parasites; observe dictyostelid cultures
T	13	Sept	<i>Oomycota</i> (cont.); observe dictyostelid cultures
Th	15	Sept	Quiz ; <i>Chytridiomycota</i> : <i>Allomyces</i> ; plant parasites
T	20	Sept	<i>Chytridiomycota</i> (cont.)
Th	22	Sept	<i>Zygomycota</i> : ordinal, family and generic taxonomy
T	27	Sept	<i>Zygomycota</i> : ordinal, family and generic taxonomy
Th	29	Sept	Quiz ; conidial fungi taxonomy
T	4	Oct	conidial fungi taxonomy
Th	6	Oct	conidial fungi taxonomy
T	11	Oct	Lab practical

Grades: A student's grade will consist of exams, practicals, and quizzes:

Quiz/exam/practical	Date	Points
Lab Quiz 1	Sept 15	25
Lecture Exam 1	Sept 20	100
Lab Quiz 2	Sept 29	25
Lab Practical	Oct 11	100
Lecture Exam 2	Oct 13	100
	Total points =	350

Grading Scale:

% Total Points	Grade	% Total Points	Grade
100-93	A	77.9-73	C
92.9-90	A-	72.9-70	C-
89.9-88	B+	69.9-68	D+
87.9-83	B	67.9-60	D
82.9-80	B-	≤ 59.9	F
79.9-78	C+		

Curve: Grades will be scaled at the end of the semester based on the highest score achieved in the class (i.e. the highest score will form the 100% mark).

Important Dates Fall 2016: these can be found at the "Calendar of Activities & Deadlines Fall 2016" weblink at:

<http://pine.humboldt.edu/registrar/pdf/CalendarOfActivitiesF16.pdf>

Additional Information on Campus Policies and Resources:

<http://www2.humboldt.edu/academicprograms/syllabus-addendum-campus-resources-policies>