Syllabus: Botany/Plant Pathology 332 – Fungi, Spring 2019

Week	Date	Lecture Topics	Webster & Weber Readings- Lecture (Lab, if different)	Laboratory	Lab Readings	
1	Jan. 22	Introduction to Fungi	1.1-1.2.2; 1.2.6-1.5.4	Lab 1 Fungal Overview & Introduction to Microscopy	1-13	
	Jan. 24	Introduction to Fungal Systematics; Fungal Isolation & Culture		Lab 2 Culturing Fungi I: Isolating Fungi from the Environment	15-18	
2	Jan. 29	Zygomycota	7	Lab 3 Mucorales	19-22	
	Jan. 31	Arbuscular Mycorrhizal Fungi: The sweet talk	7 (Smith and Read 2008)	Lab 4 Entomophthoromycotina; Glomeromycotina	23-25	
3	Feb. 5	Chytridiomycota and other chytrids	6	Lab 5 Chytrids	27-30	Lab Quiz 1
	Feb. 7	Mating systems in fungi - Introduction to fungal transformation		Lab 6 Culturing Fungi II: Single Organism Cultures; Fungal Transformation	31-35	
4	Feb. 12	Ascomycota Overview: Model organisms, pathogens, and saprobes	8-10	Lab 7 Yeasts; Apothecial Ascomycetes I	37-40	Lab Quiz 2
	Feb. 14	Apothecial Ascomycetes: Pathogenic lifestyles	14 & 15	Lab 8 Apothecial Ascomycetes II	41-43	
5	Feb. 19	Exam 1	(11 & 13)	Lab 9 Cleistothecial Ascomycetes: Eurotiales I; Erysiphales	45-46	**Lab notebook due**
	Feb. 21	Cleistothecial Ascomycetes: Powdery mildews; toxin producing Aspergilli	11	Lab 10 Cleistothecial Ascomycetes: Eurotiales II	47-51	
6	Feb. 26	Lichens: Marie Trest	16	Lab 11 Lichens	53-59	Lab Quiz 3
	Feb. 28	What is a fungal "species"? And changing views of biogeography		Lab 12 DNA Isolation	61	
7	Mar. 5	Perithecial Ascomycetes: *Fusarium* species, *Neurospora* as model organism	12	Lab 13 Perithecial Ascomycetes I	63-66	Lab Quiz 4
	Mar. 7	Pseudothecial Ascomycetes: Host specific toxins; horizontal gene transfer	17	Lab 14 Perithecial Ascomycetes II; Pseudothecial Ascomycetes	67-70	
8	Mar. 12	Medical Mycology	Handout	Lab 15 Medical Mycology	71	Lab Quiz 5
	Mar. 14	Conservation: Nora Dunkirk		Lab 16 Molecular Identification of Fungi/DNA Identification & Systematics Software	73	**Collections 1-5 due**
	SPRING BREAK MARCH 16 – MARCH 24					
9	Mar. 26	Basdiomycetes I	18-23 (21, 23)	Lab 17 Jelly Fungi; Smuts	75-78	**DNA report due**
	Mar. 28	Exam 2	(22)	Lab 18 Rusts	78-82	
10	Apr. 2	Basidiomycetes II	18-23 (19.1-19.4)	Lab 19 Mushroom-forming Agaricales;	83-87	Lab Quiz 6
	Apr. 4	Basidiomycetes III	18-23 (19.5, 19.7)	Lab 20 Agaricales cont.; Russuloid & Boletoid Fungi; Ectomycorrhizae	89-91	
11	Apr. 9	Slime Molds and little-f-fungi	2-5 (19.6, 19.8-11)	Lab 21 Polyporoid & Hydnoid Fungi	93-95	Lab Quiz 7
	Apr. 11	little-f-fungi: Conclusion	2-5 (19.6, 19.8-11)	Lab 22 Corticioid, Cantharelloid & Clavarioid Fungi	97-98	
12	Apr. 16	Biomechanics of Fungi	(20)	Lab 23 Stink Horns, Birds' Nests & Puffballs	99-101	Lab Quiz 8
	Apr. 18	Individuality and Altruism	(2.1-2.2, 2.4-2.5)	Lab 24 Myxogastrids	103-105	
13	Apr. 23	Food Insecurity and Disease: A discussion	(2.3, 3.1-3.3)	Lab 25 Dictyostelids, Plasmodiophorids, Microsporidians	107-109	Lab Quiz 9
	Apr. 25	Field trip		Lab 26 * Field Trip	110	
14	Apr. 30	Ecosystems, Global Change and Fungi (Emphasis on Decomposers)	(5)	Lab 27 Oomycetes: Peronosporales, Saprolegniales	111-115	Lab Quiz 10
	May 2	Student Presentations		Student Presentations		**Lab notebook due Collections 6-10 due**
Final Exam: Wednesday, May 8 at 7:25 PM						

*__Field trip__: Dress appropriately!

Attendance: Unless otherwise arranged and with the permission of Dr. Kabbage and Dr. Pringle, attendance at all lectures and laboratories is mandatory.

Class Information & Grading
Botany/Plant Pathology 332 – Fungi

https://canvas.wisc.edu/courses/128020

Spring 2019

Lecturer: Mehdi Kabbage
583 Russell Labs
Email: kabbage@wisc.edu
Office Hours: Open door policy

Lecturer: Anne Pringle
B115 Birge Hall
Email: anne.pringle@wisc.edu
Office Hours: Open door policy: any afternoon is fine! Or please email.

Lab Instructor: Marie Trest
Office: 137 Birge
Phone: 262-7475
Email: marie.trest@wisc.edu
Office Hours: I'm often in the lab! And by appointment.

Lectures: Tuesday & Thursday from 12:05 – 12:55 PM in Rm. 210 of Birge Hall.

Laboratory: Tuesday & Thursday from 1:00 – 3:00 PM in Rm. 210 of Birge Hall.

Prerequisites: A 5-credit introductory course in botany. Botany majors and other prospective students should have had any of three introductory biology courses/course sequences: Bot. 130 (General Botany, 5 credits), Bot./Zoo. 151 & 152 (Introductory Biology, 10 credits total), or Biocore 301/302 (Evolution, Ecology, and Genetics, 5 credits) & Biocore 303/304 (Cellular Biology, 5 credits). Overall, students should have an understanding of the principles of introductory biology including life cycles, nomenclature and ecological principles.

Recording prohibited: Audio or video recording of any lectures is not permitted. Students are expected to make notes to assist in learning the material and studying for graded exercises. Dr. Kabbage and Dr. Pringle will consider requests for exceptions in cases of need.

We are committed to equal opportunity for all persons, regardless of race, color, religion, sex, gender identity or expression, creed, age, ancestry, national origin, handicap, sexual orientation, political affiliation, marital status, developmental disability, or arrest or conviction record. We value diversity in all of its definitions, including who we are, how we think, and what we do. We cultivate an accessible, inclusive, and equitable culture where everyone can pursue their passions and reach their potential in an intellectually stimulating and respectful environment. We will continue to help create an inclusive campus culture where different perspectives are respected and individuals feel valued.

Grading:

Exam 1		100 pts
Exam 2		100 pts
Final Exam		100 pts
Lab quizzes	10 quizzes, 10 pts per quiz	90 pts (Lowest quiz dropped)
Collections 1-5	Due March 14	50 pts
Collections 6-10	Due May 2	50 pts
Lab book part 1	Collected Feb. 19	25 pts
Lab book part 2	Collected May 2	35 pts
DNA report	Due March 26	25 pts
Presentation Ugrad	May 2	75 pts
/Mini-Review Paper Grad		100 pts
		TOTAL: 650/675pts

Grading Scale:	92-100	A
	88-91	AB
	82-87	B
	78-81	BC
	70-77	C
	60-69	D

Lab Quizzes: Ten lab quizzes will be given throughout the semester (see syllabus for dates). Each will be worth 10 points and will cover material from the previous week. Your lowest quiz score will be dropped. There will be **NO make-up quizzes** for missed quizzes – a missed quiz will count as your lowest score.

Laboratory Notebook: Please bring a **three-ring binder** for your lab notebook, white **paper**, **pencils** (color is optional), an **eraser** and the **lab manual** to laboratory. Your lab notebook will include drawings with scale of the fungi studied in lab and other notes as appropriate. Grading will be based on completeness and accuracy of the observations. Neatness does count. You will get informal feedback on your book during the laboratory periods. It will be collected twice, once in **Week 5** and again in **Week 15**. Improvement during the semester may be taken into consideration for the final lab book score.

Lab Availability: Lab and lecture attendance are critical. Due to the nature of the lab, materials (i.e. living cultures) need to be examined on the day of lab when they are in optimal condition. During the course of the semester students will probably find they need additional time in lab (to work on collections, etc.). The lab will be available for independent work outside of regular class time. Birge Hall is open Mon. – Fri. 7 AM – 5 PM. It is possible to work in the lab outside of those times, if you can get into the building, but have your student ID available for security purposes.