

**BOT 4723/5723 – General Mycology  
Fall 2007**

Fungi are among the most mysterious, feared, and little-understood organisms on earth. In this class, we will barely begin to explore the biology, diversity, and importance of this varied and fascinating group of organisms. However, it is my fond hope that this class will increase your interest and stimulate your desire to learn more about the fungi.

**Instructor:** **Dr. Mariëlle Hoefnagels**, Depts. of Botany/Microbiology and Zoology  
Office: GLCH 224  
E-mail address: [hoefnagels@ou.edu](mailto:hoefnagels@ou.edu)  
Phone number: 325-5705  
Office hours: Mon., Wed. 1:30-3:00 p.m.; Tues., Thurs. 9:00-10:00 a.m. (or by appt.)

**Class Times:** Monday, Wednesday, Friday 10:30-11:45 a.m., GLCH 233/234. Note that we will not have lecture on Fridays. Instead, beginning September 14, most Friday sessions will be open labs for you to work on your projects. Attendance at open labs is mandatory and will be a graded component of your overall project grade.

**Textbooks and Supplies:**

1. Kendrick, Bryce. 2000. *The Fifth Kingdom* (3<sup>rd</sup> Ed.). Mycologue Publications, Canada.
2. Bell, Ann. 1983. *Dung fungi: an illustrated guide to coprophilous fungi in New Zealand*. Victoria University Press, New Zealand.
3. Microscope slides, cover slips, and clear nail polish for saving voucher specimens.

**Other resources:**

- My web site: <http://faculty-staff.ou.edu/H/Marielle.H.Hoefnagels-1/> (click on mycology).
- **Turnitin.com:** [www.turnitin.com](http://www.turnitin.com). You will submit some assignments to Turnitin.com. The first time you visit the site, click on the New Users link, indicate that you are a student, and enter the **Turnitin class ID (1924758) and password (fungi!)**. You will then create a user profile. Turnitin has excellent training videos on their website.
- **OU Library Electronic Reserve:** <http://libraries.ou.edu/eresources/reserves/> Some required journal articles may be posted here. Log in using your 4+4 and OU password. Select “BOT”, then BOT 4723.
- Web site for *The Fifth Kingdom* (highly recommended!): <http://www.mycolog.com/index.html>
- **ConocoPhillips Writing Center:** <http://www.ou.edu/writingcenter>. The consultants at the writing center can help you at any stage in your writing process for any course you are taking.

**Points:**

Item	BOT 4723 (undergraduates)			BOT 5723 (grad students)		
	Number	Points	Total	Number	Points	Total
Midterms	2	100	<b>200</b>	2	100	<b>200</b>
Final	1	200	<b>200</b>	1	200	<b>200</b>
Sci. literature	4	25	<b>100</b>	4	25	<b>100</b>
Project	1	200	<b>200</b>	1	200	<b>200</b>
Expt. or research	--	--	--	1	150	<b>150</b>
Presentation	--	--	--	1	50	<b>50</b>
<b>Total</b>			<b>700</b>			<b>900</b>

- **Midterm exams:** There will be two midterm exams this semester, each worth 100 points. The format will include true-false, multiple-choice, and matching questions, but will also include short answer and essay questions.
- **Final exam:** The final exam will be worth 200 points, and will follow a format similar to that of the midterm exams (100 points will come from the third portion of the course, and 50 points will come from each of the first 2 portions).
- **Focus on scientific literature:** These four 25-point assignments have two objectives: to acquaint you with the format of a scientific article, and to showcase some recent peer-reviewed papers in the mycology literature. We will dedicate four lecture periods to these assignments, which will include a writing assignment to be completed in advance of class plus an in-class activity.
- **Fungal succession project:** Herbivore dung offers a unique opportunity to witness fungal succession over a relatively short time frame. Each student will therefore carry out a fungal succession project on horse manure (I'll provide the manure!). We will begin these projects in the 4<sup>th</sup> week of the semester, and repeat them beginning the 9<sup>th</sup> week. I will distribute instructions separately. Basically, your task will be to identify the fungi that arise over time on your sample. At the end of the week 15 you will turn in your results for both rounds, formatted as a scientific paper. You will also turn in a set of voucher specimens by which I can verify your identifications. Microscopes, mounting liquids, culture media, scalpels, dissecting needles, alcohol, etc. will be available on Fridays from 10:30-11:45 a.m. as needed. You will need to supply your own microscope slides, cover slips, and clear nail polish.

**To students who are enrolled for graduate credit:** The university requires that you do additional work to receive graduate credit for this course. This additional work will be:

1. **Managing some open labs**
2. **In addition to the dung succession project,** you will either (a) carry out an experiment using the dung succession materials or (b) write a research paper. If you choose to carry out an experiment using the dung, it will take the place of the original succession project; your entire project will then be worth 350 points. If you choose the research paper, your succession project will still be worth 200 points and the research paper will be worth 150 points. We will work together to set deadlines for the outline, rough draft, etc. Either way, both of us must agree upon the project before the fourth week of class.
3. **Present an oral report** to the class summarizing your findings (experiment or research paper) during the last week of class. Your presentation should be about 20 minutes long, plus about 10 minutes for questions and discussion.

#### **Makeup policies:**

- **Exams:** I will give makeup exams for the midterms only in case of emergency (personal illness or serious illness or death in the immediate family). If you need to miss a midterm, please contact me by phone or e-mail in advance if at all possible, and be prepared to provide supporting documentation. Note that University and College of Arts and Sciences policies prohibit makeups for final exams, except for emergencies or academic conflict (more than two finals in one day, or two at the same time). The policies also prohibit giving a final exam at other than the scheduled time; therefore, if you work, you are responsible for arranging your work schedule to enable you to attend the final exam.
- **Other assignments:** No make-ups. Contact me if you have a good (i.e. medical) reason for missing one.

**Academic misconduct:** Academic misconduct includes cheating, plagiarism, falsification of records, unauthorized possession of examinations, intimidation, and any other action that may improperly affect the evaluation of your performance. It also includes assisting others in any such act or attempts to engage in such acts. Penalties may include grade penalties and disciplinary action from the University's Academic Misconduct Board. For more on academic misconduct, visit <http://www.ou.edu/provost/integrity>.

**Reasonable accommodation policy:** Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

**Policy on cell phones and laptops:** I ask your cooperation in turning off cell phones during lecture. If you wish to use your laptop, please sit at the rear of the class so your screen does not distract others.

**E-mail contact with the class:** I occasionally e-mail the whole class at once to make important announcements, send reminders, etc. You should therefore check your email frequently. *It is always best if you use your OU email.* But if you use a different one, please follow these EASY instructions that will enable my e-mails to the class to reach you too:

1. Go to <http://account.ou.edu>
2. Log in using your OUNet ID and password.
3. Enter the email address you use at "Forward the above acct to:"

That's it! Now all your OU e-mail will be automatically forwarded to the e-mail address you use. (Please note that OU does not guarantee email delivery to non-OU email accounts.)

**Summary of important dates (see academic calendar for more information):**

**Last day to drop classes without a grade record:** Friday, August 31 (end of Week 2)

**Last day to drop (automatic "W"):** Friday, September 28 (end of Week 6). Please note that if you withdraw any time *after* this date, I will give you a W for the class if you have a chance to pass at the time of withdrawal. If you will fail, academic standards require that you receive an F.

**Petition to dean required to drop ("W" or "F"):** Mon., Oct. 29 (beginning of week 11) to Fri., Dec. 7

### Tentative lecture schedule (subject to change)

Week	Date	Lecture Topic	Reading
1	Mon. Aug. 20	Intro to class; pretest	
	Wed. Aug. 22	What are fungi? Set up moist chambers	Chap. 1-5
	Fri. Aug. 24	<i>No class</i>	
2	Mon. Aug. 27	Major groups of fungi; species concepts; practice sterile technique/plating	Chap. 1-5
	Wed., Aug. 29	Practice working with & looking at fungi	--
	Fri. Aug. 31	<i>No class</i>	
3	Mon. Sep. 3	<i>No class (Labor Day holiday)</i>	--
	Wed. Sep. 5	Where are fungi? How do we find them?	Chap. 11
	Fri. Sep. 7	<i>No class</i>	
4	Mon. Sep. 10	Begin dung fungi project	--
	Wed. Sep. 12	Look at fungi; intro to culture media	--
	Fri. Sep. 14	Open lab	
5	Mon. Sep. 17	Fungal growth & metabolism	Chap. 9
	Wed. Sep. 19	<b>Focus on Scientific Literature, Part I</b>	
	Fri. Sep. 21	Open lab	
6	Mon. Sep. 24	<i>No class (study for the exam!)</i>	Chap. 9
	<b>Wed. Sep. 26</b>	<b>M I D T E R M E X A M 1</b>	
	Fri. Sep. 28	Open lab	
7	Mon. Oct. 1	Slime molds, oomycetes, chytrids, and zygo's	Chap. 2,3
	Wed. Oct. 3	Open lab	
	Fri. Oct. 5	<i>No class (OU-Texas holiday)</i>	
8	Mon. Oct. 8	Ascomycetes, basidiomycetes	Chap. 4,5
	Wed. Oct. 10	<b>Focus on Scientific Literature, Part II</b>	
	Fri. Oct. 12	Last open lab for Round 1	
9	Mon. Oct. 15	Basidiomycetes; yeasts	Chap 5,6
	Wed. Oct. 17	Fungal mating systems and genetics	Chap. 10
	Fri. Oct. 19	Set up round 2 of project	
10	Mon. Oct. 22	Fungal mating systems and genetics	Chap. 10
	Wed. Oct. 24	Catch up and review	
	Fri. Oct. 26	Open lab	
11	<b>Mon. Oct. 29</b>	<b>M I D T E R M E X A M 2</b>	
	Wed. Oct. 31	Plant pathology	Chap. 12
	Fri. Nov. 2	Open lab	
12	Mon. Nov. 5	Fungus-animal relationships	Chap. 15,16
	Wed. Nov. 7	<b>Focus on Scientific Literature, Part III</b>	
	Fri. Nov. 9	Open lab	
13	Mon. Nov. 12	Symbioses: mycorrhizae and lichens	Chap. 7,17
	Wed. Nov. 14	Open lab	
	Fri. Nov. 16	<i>No class (Statehood Day)</i>	
14	Mon. Nov. 19	<b>Focus on Scientific Literature, Part IV</b>	
	Wed. Nov. 21	<i>Thanksgiving holiday</i>	
	Fri. Nov. 23	<i>Thanksgiving holiday</i>	
15	Mon. Nov. 26	Last open lab for Round 2	
	Wed. Nov. 28	Medical mycology (guest lecturer: Joy Pelfrey)	Chap. 23
	Fri. Nov. 30	<b>Projects due !!!</b>	
16	Mon. Dec. 3	Fungi in/as food; grad. student pres.	Chap. 18-22
	Wed. Dec. 5	Catch-up and/or review slides for final exam	
	Fri. Dec. 7	<i>No class</i>	
<b>Finals</b>	<b>Tues., Dec. 11</b>	<b>F I N A L E X A M, 8:00 – 10:00</b> 🕒	