

Introductory Mycology

BIOL, PLPA 4250/6250 - 001 3(3,0)

FALL 2020

MON and WED 3:30–4:45pm

Online and/or BARNES CENTER 100

HYBRID/BLENDED INSTRUCTIONAL METHOD (<https://www.clemson.edu/registrar/>)

Instructors and Office Hours



Dr. Julia Kerrigan

Office: D137 Poole (P&A)

Office hours: After class or by appointment, Zoom or in person meeting.

Office phone: 864-656-2640

jkerrig@clemson.edu

I will try to respond to emails as soon as possible, within 24 hours except for during weekends. If it has been longer than this time period feel free to send me a reminder.



TA: Stephen Baker

Office: D138 Poole (P&A)

Office hours: Available by appointment, Zoom meeting.

Office phone: 864-656-5752

stbaker@g.clemson.edu

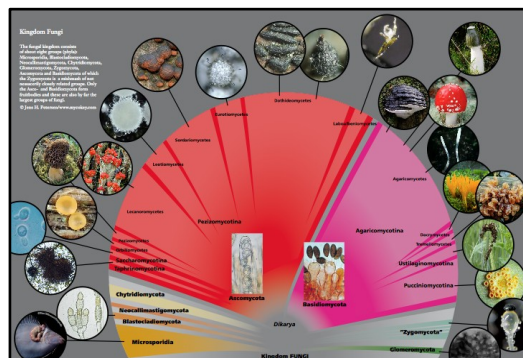
Course Description

Introduction to the biology of all the groups of fungi and some related organisms, with considerations of the taxonomy, morphology, development, physiology, and ecology of representative forms.

Students are expected to have completed one year of coursework in introductory biology before enrolling in this course (e.g. BIOL 1040 & BIOL 1060; or BIOL 1110).

Learning Outcomes

Introductory Mycology is designed to introduce students to the study of organisms in the Kingdom Fungi and allied taxa traditionally studied in mycology courses.



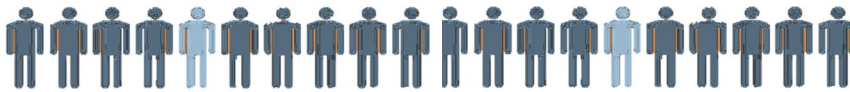
Canvas will be used
<http://www.clemson.edu/canvas/>.
 Copies of the syllabus, notes,
 readings, and other materials will
 be posted.

Students will demonstrate:

- Comprehension of the taxonomy of fungi.
- An understanding of the morphology, systematics, life histories, genetics, cell biology, and significance of each taxonomic group.
- Knowledge of the basic biology and ecology of fungi, including their roles in different ecosystems and direct and indirect impacts upon humans.

Lecture Requirements

Attendance is important



Regular attendance is expected and you are responsible for all of the information presented in class, whether it is delivered verbally, on PowerPoints, or on handouts. Typically, poor class attendance is reflected in grades.

I will post lecture notes ~24 hours before class. **These notes are an outline and do not replace attending class, listening, and taking notes yourself.** These notes are not complete but given as a means of facilitating note-taking and providing illustrations that are important for understanding the material.

For online class, I will lecture via Zoom during the regular class time. You will have the opportunity to ask questions by speaking or via the chat. These lectures will be recorded and posted on Canvas.

For on-campus classes, I will provide details regarding the logistics closer to the date.

Required Text

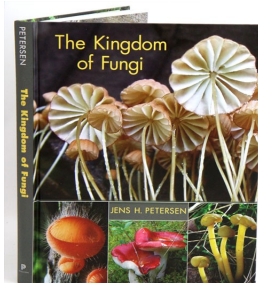
The Kingdom of Fungi by Jens H. Petersen. It is available through the library website as an ebook, or it can be purchased at the bookstore for \$29.95. Additional reading materials will be provided.

From the Faculty Senate Scholastic Policy Committee:

“Any exam that was scheduled at the time of a class cancellation due to inclement weather, University power outage, etc. will be given at the next class meeting unless contacted by the instructor. Any assignments due at the time of a class cancellation due to inclement weather will be due at the next class meeting unless the instructor contacts students. Any extension or postponement of assignments or exams must be granted by the instructor via email or Canvas within 24 hours of the weather-related cancellation.” _____

“The academic resources of Clemson University are provided for the intellectual growth and development of students. Class attendance is critical to the educational process; therefore, students should attend scheduled courses regularly if they are to attain their academic goals.”

If you miss class you are responsible for getting notes from other class members. Get contact information from at least three other students so you can easily share notes. I am always willing to clarify information if you need help after acquiring notes from someone in the class.



Examinations

All tests, including quizzes and exams, must be taken during regular class times. Quizzes will be given during the first 15 minutes of class. Exams will be given during the entire class period. See the last page of this syllabus for test dates.

Three examinations and six quizzes - based on lecture materials, relevant readings, and Fungi in the News presentations - will be given during lecture periods and the final exam schedule. Exams and quizzes are scheduled so that there is a relatively uniform number of lecture dates between each.



Test content will cover topics in lectures covered since the previous test (e.g. Quiz 2 will cover all material since Quiz 1. Exam 1 will contain all material since the first day of class). Quizzes typically contain questions on detailed information, while comprehension of overall principles and concepts is expected in the exams.

The third and final exam is not cumulative and everyone is required to take it.

One quiz score can be dropped; this may be your lowest score or a quiz missed because of an undocumented absence.

If you have a scheduled absence for a valid reason (i.e. verified medical excuse, University function, etc.) and will be unable to attend a quiz or exam, you must convey that at least one week before the exam and we will schedule a time for you to take it.

Make-up exams will be given only if a valid, documented excuse for your absence (i.e. medical issue) is provided within 24 hours after an exam is given. Missed exams without an acceptable, timely excuse will receive a grade of zero.

To help you prepare for tests, I will post questions from quizzes and exams from previous years of this course. Note that these are not 'study guides' but a means for you to understand the types of questions I ask. I understand that each instructor has a different style and this is meant to alleviate that unknown - but these are not study guides. I do not provide study guides because you are in college and if you listen in lecture you should be able to prepare study guides on your own.

During tests, all work must be your own. You may not use notes or any other external source for your information other than yourself. Any violation of this will be submitted to the Office of Academic Integrity.

For on-campus class, we will use Respondus Lockdown and Respondus Monitor, depending on if you are in class or online, for quizzes. I will provide details regarding the logistics and application of this closer to the date.

We will use Respondus Monitor for all Exams. Below is information about it, provided by campus resources: <https://web.respondus.com/he/monitor/resources/>
Additional information, details, and support will be given before each test.

Using LockDown Browser and a Webcam for Online Exams

This course requires the use of LockDown Browser and a webcam for online exams. The webcam can be built into your computer or can be the type that plugs in with a USB cable. Watch this [short video](#) to get a basic understanding of LockDown Browser and the webcam feature. A student [Quick Start Guide](#) is also available.

Then download and install LockDown Browser from this link: <https://www.clemson.edu/online/tools/responduslockdown.html>

To ensure LockDown Browser and the webcam are set up properly, do the following:

- Start LockDown Browser, log into Canvas, and select this course.
- Locate and select the **Help Center** button on the LockDown Browser toolbar.
- Run the **Webcam Check** and, if necessary, resolve any issues.
- Run the **System & Network Check**. If a problem is indicated, see if a solution is provided in the Knowledge Base. Troubleshooting information can also be emailed to our institution's help desk.
- Exit the Help Center and locate the practice tests names. Practice tests will be available in Canvas before each quiz and exam so that you can ensure your system is running correctly
- Upon completing and submitting the practice quiz, exit LockDown Browser.

When taking an online exam that requires LockDown Browser and a webcam, remember the following guidelines:

- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Clear your desk of all external materials not permitted — books, papers, other devices
- Before starting the test, know how much time is available for it, and that you've allotted sufficient time to complete it
- Remain at your computer for the duration of the test
- If the computer or networking environment is different than what was used previously with the **Webcam Check** and **System & Network Check** in LockDown Browser, run the checks again prior to starting the test
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims
 - Ensure your computer or tablet is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed or other surface where the device (or you) are likely to move
 - If using a built-in webcam, avoid tilting the screen after the webcam setup is complete
 - Take the exam in a well-lit room and avoid backlighting, such as sitting with your back to a window
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

Assignments (there are three)

1. Required Packback Participation

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback is an online community where you can be fearlessly curious and ask open-ended questions to build on top of what we are covering in class and relate topics to real-world applications.

Your participation on Packback will count toward 10% of your overall course grade.

There will be a **Weekly Tuesday deadline at 5:00PM Eastern time** for submissions. The first submissions are due 9/1/2020.

In order to receive your points per week, you should submit the following per each deadline period:

- 1 open-ended Question per week each worth 33.33% of each assignment grade
- 2 Responses per week each worth 66.67% of each assignment grade. You must receive a curiosity score of 50 or higher to receive full credit. You can see your score and improve it while you write.
- You get one 'free' missed week, i.e. if you submit nothing one week no penalty. After that, each week missed will count as 0 towards your total. If you are late/miss the deadline you will get 0 that week (you have a week to do it – engage early!).

I will go over additional details during lecture and provide a handout with the grading rubric, but for now please read below and sign up for Packback.

How to Register on Packback:

An email invitation will be sent to you from help@packback.co prompting you to finish registration. If you don't receive an email (be sure to check your spam), you may register by following the instructions below:

1. Create an account by navigating to <https://questions.packback.co> and clicking "Sign up for an Account"
Note: If you already have an account on Packback you can log in with your credentials.
2. Then enter our class community's lookup key into the "Looking to join a community you don't see here?" section in Packback at the bottom of the homepage.
Community Lookup Key: **688acdf4-f303-4547-bec4-23b6db96afe0**
3. Follow the instructions on your screen to finish your registration.
Packback requires a \$25 paid subscription. Refer to www.packback.co/product/pricing for more information.

How to Get Help from the Packback Team:

If you have any questions or concerns about Packback throughout the semester, please read their FAQ at help.packback.co. If you need more help, contact their customer support team directly at help@packback.co.

For a brief introduction to Packback Questions and why we are using it in class, watch this video: vimeo.com/packback/Welcome-to-Packback-Questions

Assignments (there are three, continued)

2. Fungus Collection. Details will be provided in a separate handout.

3. Fungi in the News presentation. Details will be provided in a separate handout.

Graduate students enrolled in 6250 will have an additional assignment, details will be presented separately.

Grading system



Clemson University's grading system is described in the Undergraduate Announcements. Please see the Registrar's web site at <http://www.registrar.clemson.edu/html/finalGrades.htm>.

Scores will be calculated following a ten point (%) grading scale:
A - 90-100%, B - 80-89%, C - 70-79%, D - 60-69%, F - below 60%.

Grades will be determined by examinations and assignments. Grades will be maintained on Canvas.

Undergraduate students:

Examinations (3 x 100 pts/exam)	=	300 points	50%
Quizzes (5 x 20 pts/quiz)	=	100 points	17%
Fungus collection	=	80 points	13%
Fungi in the News assignment	=	60 points	10%
Participation (Packback)	=	<u>60 points</u>	<u>10%</u>
Total	=	600 points	100%

Graduate students:

Examinations (3 x 100 pts/exam)	=	300 points	43%
Quizzes (5 x 20 pts/quiz)	=	100 points	14.5%
Fungus collection	=	80 points	11%
Fungi in the News assignment	=	60 points	8.5%
Participation (Packback)	=	60 points	8.5%
Additional Assignment	=	<u>100 points</u>	<u>14.5%</u>
Total	=	700 points	100%

In-Classroom Conduct



I like to have an informal atmosphere in my classes, but I also want an atmosphere of mutual respect.



Masks are required. You may not attend lecture in person if you are not properly wearing a mask intended to prevent pathogen spread. From the "Specific COVID-19 related information for in-person classes: While on campus, face coverings are required in all buildings and classrooms. Face coverings are also required in outdoor spaces where physical distance cannot be guaranteed. Please be familiar with the additional information on the Healthy Clemson website, such as the use of wipes for inperson classes. If an instructor does not have a face covering or refuses to wear an approved face covering without valid accommodation, students should notify the department chair. If a student does not have a face covering or refuses to wear an approved face covering without valid accommodation, the instructor will ask the student to leave the academic space and may report the student's actions to the Office of Community & Ethical Standards as a violation of the Student Code of Conduct. If the student's actions disrupt the class to the extent that an immediate response is needed, the instructor may call the Clemson University Police Department at 656-2222."



You can expect me to come to class prepared and eager to share new material with you. Be on time. It is disruptive to your classmates and me if you come to class after it has started. In addition, I provide important instruction about exams and assignments at the beginning of class.

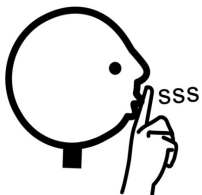


If I am late for class, you should wait 15 minutes before assuming no class will be held. Check your email for notification. I will make every effort not to be late for class and I hope you will do the same.



Do not pack up until after I indicate the class is over. It only takes seconds to put your things away. This is a large class, if everyone starts packing up before the end of class it is difficult to hear my instruction.

No cell phones, do not put your phone on your desk. Be an active listener, critical thinker, and participate. Enjoy the break from texts and social media!



Laptops, tablets, and similar devices are permitted as long as they are used for taking notes for this class. If you are inclined to use your laptop for things other than take notes for this class, please sit in the back to minimize distractions to others.

Please be respectful of those around you. Everything you do affects your neighbors. Do not have conversations, use you phone, or otherwise engage in activities that will bother your neighbors. If I am distracted by your actions, that means others are as well and I will ask you to stop and/or leave. If the classroom environment is disrupting your ability to learn the material, please let me know.

University Policies

Specific COVID-19 related information:

For a student who reports testing positive or is being asked to quarantine/isolate because of exposure to the virus, it will be up to the student to inform the instructor that they will be moving to online only instruction for at least the next two weeks. Students are directed to use the Notification of Absence link in Canvas to initiate this notification, which can be found under the “Help” button on the left navigation. (For courses where Canvas is not used, the direct link to the Notification of Absence form can be found through the [Division of Student Affairs site](#).) Additional communication via email is encouraged; students should follow up with their instructor to develop a continued plan of study for each course. Students cannot be penalized in their grade for needing to move to online instruction.

Academic Integrity

The following is the official statement on [academic integrity](#).

“As members of the Clemson University community, we have inherited Thomas Green Clemson’s vision of this institution as a “high seminary of learning.” Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

When, in the opinion of a course instructor, there is evidence that a student has committed an act of academic dishonesty, the instructor must make a formal written charge of academic dishonesty, including a description of the misconduct to Dr. Jeff Appling, Senior Associate Dean of Undergraduate Studies. The reporting instructor may, at his/her discretion, inform each involved student privately of the nature of the alleged charge. In cases of plagiarism (I.B.2.) instructors may use the Plagiarism Resolution Form available from the Office of Undergraduate Studies. Instructors using this form for the first time must consult with Dr. Jeff Appling (japplin@clemson.edu) prior to meeting with the student. Instructors suspecting a violation of the academic integrity policy should *not* assign a grade penalty until the process is complete.”

Academic Honesty

You are expected to do your work independently of other students unless instructed to do otherwise by Dr. Kerrigan. You must work in Packback yourself. You may not use an assignment submitted in another semester by a previous student (all assignments are kept on record). Any student suspected of academic dishonesty will be referred to the committee on academic integrity for action.

Accessibility statement

Clemson University values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to a class should let the professor know, and make an appointment to meet with a staff member in Student Accessibility Services as soon as possible. You can make an appointment by calling 864-656-6848 or by emailing studentaccess@lists.clemson.edu. Students who receive Academic Access Letters are strongly encouraged to request, obtain and present these to their professors as early in the semester as possible so that accommodations can be made in a timely manner. It is the student’s responsibility to follow this

process each semester. You can access further information here: <http://www.clemson.edu/campus-life/campus-services/sds/>.

Title IX (Sexual Harassment) Policy

“Title IX Policy: Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran’s status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972.

The University is committed to combatting sexual harassment and sexual violence. As a result, you should know that University faculty and staff members who work directly with students are required to report any instances of sexual harassment and sexual violence, to the University’s Title IX Coordinator. What this means is that as your professor, I am required to report any incidents of sexual harassment, sexual violence or misconduct, stalking, domestic and/or relationship violence that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:

Confidential Resources and facilitators of sexual awareness programs such as "Take Back the Night and Aspire to be Well" when acting in those capacities, are not required to report incidents of sexual discrimination. Another important exception to the reporting requirement exists for academic work. Disclosures about sexual harassment, sexual violence, stalking, domestic and/or relationship violence that are shared as part of an academic project, a research project, classroom discussion, or course assignment, are not required to be disclosed to the University’s Title IX Coordinator.

This policy is located at <http://www.clemson.edu/campus-life/campus-services/access/title-ix/>. Ms. Alesia Smith is the Executive Director for Equity Compliance and the Title IX Coordinator. Her office is located at 223 Holtzendorff Hall, phone number is 864.656.3181, and email address is alesias@clemson.edu.”

Copyright Statement

The files you receive for this course may only be used for this course. They cannot be shared, re-used, posted, etc.

“Materials in some of the courses are copyrighted. They are intended for use only by students registered and enrolled in a particular course and only for instructional activities associated with and for the duration 7 of the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Teach Act. Students should be reminded to refer to the Use of Copyrighted Materials and “Fair Use Guidelines” policy on the Clemson University website for additional information (link <https://clemson.libguides.com/copyright>).”

	Date	Lecture topic (<i>dates and topics will not always align</i>)	Reading (Petersen)
1	Aug 19	Introduction to the significance and biodiversity of fungi	4-5, 223-259
2	Aug 24	What are Fungi? Packback intro	6-17, 34-39, 194-221
3	Aug 26	Taxonomy; Introduction to major groups, Specimen Collection Packback starts (1st deadline 5 pm EDT 9/1/2020)	18–23, 40-45 , 46-193
4	Aug 31	Quiz 1 , Basidiomycota: Introduction to characteristics, life cycles	102–105
5	Sept 02	Basidiomycota: Agarics	132-145, 150-153
6	Sept 07	Basidiomycota: Mushroom toxins	
7	Sept 09	Basidiomycota: Boletes, Ectomycorrhizae; FIN intro	124-131, 210-215
8	Sept 14	Quiz 2 , Basidiomycota: Polypores and Wood decay	106-123, 202-205
9	Sept 16	Basidiomycota: Gasteroid fungi, Jelly fungi	172-187
10	Sept 21	Basidiomycota: Rusts and Smuts	188-191
11	Sept 23	Exam 1	
12	Sept 28	The Magic of Mushrooms	
13	Sept 30	Ascomycota: Introduction to characteristics and major groups	46-101
14	Oct 05	Ascomycota: Asexual fungi intro	24-33
15	Oct 07	Quiz 3 , Ascomycota: Discomycetes (cup fungi, lichens);	50-69; 88-93, 218-219
	Oct 12	Ascomycota: Perithecial fungi (Sordariomycetes)	70-83
16	Oct 14	Ascomycota: Perithecial fungi (Sordariomycetes)	70-83
17	Oct 19	Quiz 4 , Ascomycota: Cleistothecial fungi (asexual plectomycetes)	84-87
18	Oct 21	Ascomycota: Loculoascomycetes (asci within stroma)	
19	Oct 26	Ascomycota: Archiascomycetes ; Hemiascomycetes (yeasts)	
20	Oct 28	Exam 2	
21	Nov 02	Fall Break (VOTE)	
22	Nov 04	Fantastic Fungi	
23	Nov 09	ex-Zygomycota	192-193
24	Nov 11	Quiz 5 , catch up	
25	Nov 16	Glomeromycota (arbuscular mycorrhizae)	216-217
26	Nov 18	Chytridiomycota (zoosporic fungi)	
27	Nov 23	Quiz 6 , Chromista/ Stramenopila: Introduction to Oomycota	
	Nov 25	Thanksgiving Holiday	
28	Nov 30	Protozoa: Slime molds (online instruction)	
29	Dec 02	Protozoa: Slime molds (online instruction)	
30	Dec 08	Mandatory Final/ Exam 3 Tuesday, 7:00—9:30pm Clemson time	

