

# Biodiversity of Macrofungi - **BIOL 5530**

## FALL 2020 – Social Distance-Modified, HyFlex Lecture, Face-to-Face Lab, Partially Flipped

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Office Hours – just come by ☺

**Social Distancing Modification** – There are too many students in the class to socially distance in lab. Therefore, students will be split into two groups, Group Asco and Group Basidio. In many cases, when Group Asco is in lab, Group Basidio will be in lecture, and vice versa. Obviously, I cannot be in two places at the same time, so there will be a handful of lab sessions where I will not be present, and a handful of recorded lectures when your modified lab-time overlaps with lecture. This plan was developed to maximize opportunities for face-to-face instructional support in both lecture and lab, while also maximizing safety – both yours and mine.

**HyFlex Lecture Plan** – What HyFlex means in my class is you get to decide if you want to attend lecture face-to-face or online. It is totally up to you, you are welcome to switch it up, and there is no need to tell me ahead of time. That said, there will be some days where online lectures are the only option because of the Social Distancing Modification to the lab schedule.

**Face-to-Face Lab Plan** – Beginning September 14, Group Asco will meet for lab on Mondays 1-2:15 and Wednesdays 10-10:50, and Group Basidio will meet for lab on Mondays 2:15-3:45 and Fridays 10-10:50. I will be with both groups during the Monday lab periods. The Wednesday or Friday labs will be for students to work on the mushroom ID/collection project – which does not require my presence. However, I will visit the lab immediately after the lecture classes on these days to answer questions.

**Partially Flipped** – In 2018, this course was partially “flipped”. This means it was designed so students did much of the work at home, with many lecture periods used for presentations and discussions instead of lectures. This method is being used again because a large majority of my 2018 students reported positive feelings about the approach at the end of the semester. That said, a WARNING is needed, as not every student liked it! There is a lot of homework, and you will not earn a perfect score if your work is inaccurate or incomplete. If this does not interest you, then I highly recommend that you find a different course.

<b>Week 1</b>	See BV announcements to figure out which group you belong & which schedule to follow.			
	<b>August 24 to Sept. 11 Schedule</b>		<b>Schedule beginning September 14</b>	
	<b>Ascospores</b>	<b>Basidios</b>	<b>Ascospores</b>	<b>Basidios</b>
<b>Lab*</b>	M, 1-3:50 Take-home 8/24 Field 8/31	M, 1-3:50 Field 8/24 Take-home 8/31	M, 1-2:15 W, 10-10:50 in place of M, 2:15-3:45	M, 2:30-3:45 F, 10-10:50 in place of M, 1-2:15
<b>Lecture*</b>	M, 10-10:50** W, 10-10:50** F, 10-10:50**	M, 10-10:50** W, 10-10:50** F, 10-10:50**	M, 10-10:50** W, 10-10:50, Kaltura when applicable F, 10-10:50	M, 10-10:50** W, 10-10:50 F, 10-10:50, Kaltura when applicable

\*Schedules are subject to change

\*\*Alternating in class and Kaltura - See Tentative Schedule for dates – or meeting locations.

**Course Description** – A survey of the biology and diversity of fungi that produce large sporocarps, with an emphasis on identification. Field trips may be required.

**Required Materials:**

- J.H. Petersen. 2013. The Kingdom of Fungi. Princeton University Press.
- Mushrooms Demystified, David Arora
- Digital camera – cell phone camera is perfect
- Pocket knife or similar
- Mushroom collecting basket - medium sized cardboard box is fine
- 10X handlens or 10-12X cellphone macrolens attachment

**Learning Outcomes**

**Macrofungi Knowledge – At the end of the course, students will be able to...**

- Identify mushrooms based on ecological, macroscopic and microscopic data.
- Use mycological terminology to describe characteristics of macrofungi.
- Analyze and interpret DNA sequence results and build cladograms.
- Voucher fungal sporocarps and record digital data.
- Group mushrooms by systematic relatedness.

**Professional Skills – This course will also provide opportunities to improve...**

- Microscopy
- Attention
- Critical thinking
- Knowledge synthesis

**Important Information**

- If you have need for special arrangements to complete the requirements of this course, please contact the Access Office for Students with Disabilities, and discuss this need with me.

**GRADE – if we remain on-campus; weights may change if we go online! SCALE**

**Presentation/In-Class Assignment Grades: 35%**

**Other Lecture Grades: 35%**

**Lab Grades: 30%**

**A 90-100%**

**B 80-89.5%**

**C 70-79.5%**

**D 60-69.5%**

**F <59.5%**

**HOW TO CALCULATE YOUR GRADE**

Point values for each assignment will reflect the time needed to complete or prepare for the assignment and the difficulty of the assignment. Use the 2 steps below to keep up with your grade.

1. CALCULATE A PERCENTAGE VALUE FOR EACH ASSESSMENT:

$$\% \text{ GRADE} = (\# \text{ POINTS EARNED} / \# \text{ POSSIBLE POINTS}) \times 100$$

2. PLUG YOUR PERCENTAGE VALUES INTO THIS FORMULA:

$$\text{GRADE} = (\% \text{ Presentation Grade} \times 0.35) + (\% \text{ Other Lecture Grade} \times 0.35) + (\% \text{ Lab Grade} \times 0.3)$$

# Assessments

**Presentation/In-Class Activity Assignments.** During the first half of the course, fungal species within important genera & form-groups will be presented by students via short presentations, instead of by me in multiple, long lectures. There will be **9 Species Presentation Assignments**. Your grade will be based on the following: 1) the completeness and accuracy of your HW assignment, 2) the completeness and accuracy of your presentation, and 3) your ability to summarize the commonalities and variances among the species presented within your group. Each presentation is expected to be 3-5 minutes long. No grades will be dropped, but two presentations may be turned in up to 48hr late without penalty. During the second half of the course, there will be **6 HW and In-Class Activities** on macrofungal systematics. These grades will be based on the following: 1) the completeness and accuracy of your HW assignment, and 2) your participation in the in-class activity.

**Other Lecture Grades.** Most of the formal lecture content will be assessed using two in-person written exams, one prior to midterm and the second after midterm. BlazeView Quizzes will be used to assess most of the student presented content. A cumulative exam will be used to evaluate both lecture and student presentation content at the end of the semester. **\*\* 5530 exams and quizzes may be more challenging than 3530 assessments.** Points will also be earned for taking thorough, hand-written notes of each lecture/presentation. For full credit, lecture notes must be checked-off or reported the day of the lecture. Notes submitted after the lecture date are worth 75% if submitted at least **24hr before the exam or BV Quiz**, and 50% if within 24hr of the assessment.

**Lab Grades.** The plan for this portion of the class is really dependent on how long we continue to meet face-to-face. If all goes well, there will be a collection project, requiring you to identify a selection of fungi that you collect to species. There will also be a Lab Practical that will evaluate your mastery of terminology and identification skills developed while working on the collection project. I also plan to do a Fungal Diversity Survey (FunDiS) Project, which includes DNA sequencing and sporocarp vouchering of a selection of the fungi that you collected and identified during the course. The FunDiS Project will be presented remotely the week after Thanksgiving during the lecture portion of the course; however, this presentation will be counted as a lab grade.

**\*\*\*5530 students will have a graduate project in lab related to the FunDiS Project. Students will conduct/compare sequence results using two sequencing methods, write a Blog Post for the Fungal Diversity Survey Blog, and get the vouchered samples officially submitted to the Fungal Collection in the VSC Herbarium.**

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## Policies & Expectations

- Every student must wear a face covering over their nose and mouth at all times while in the building.
- Maintain a 6' distance whenever possible. This includes when you speak with me outside of class.
- NEVER attend class if you have a temperature, do not feel well, or have been told to quarantine.
- Documented excuses are NOT required for missed lectures, labs, and (one) exam.
  - Missed lectures should be done online. All lectures must be watched and hand-written notes documented on the day of the lecture for full credit (see tentative schedule), or at least 24hr before the exam for partial credit.
  - Missed time in the lab, due to absences or tardiness, must be made-up; otherwise your collection project will not be accepted. All Monday labs must be made-up in the laboratory at a later date. More flexibility is granted for the Wednesday/Friday labs, as students are permitted to use 3 W/F lab sessions to be outside collecting macrofungi, at your discretion. More approved time for outside collecting work will be approved for students who are demonstrating acceptable progress with the collection project. Requests for approval should be made during the Monday lab immediately before the additional outing.
  - Students are allowed to miss one exam due to questionable health concerns (see third bullet). The make-up exam will occur before or during the next scheduled class (10am on a Wednesday) unless a documented restriction keeps you from doing so, and an online, oral exam is not an option. If a second exam must be missed for questionable health, you will need to send me an email to let me know about your situation **before 10am on exam day**, and we will discuss your options.
- Maintain a positive learning environment by always being respectful of others. If someone is not being respectful, speak-up or disengage. Don't ruin it for others, and don't bring others down!
- Check your valdosta.edu email and BV Announcements every day.
- Have a mindset that you are in this class to learn, and do your best to make that happen.
- New Grading plans and Policies may be put in place if I discover my plan is not working with the HyFlex instructional model or if we move online completely.

Coronavirus Resources: VSU's Coronavirus FAQ page is located at <https://www.valdosta.edu/health-advisory/faq.php>. VSU Health and Wellness website is at <https://www.valdosta.edu/administration/finance-admin/campus-wellness/student-resources.php>.

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Access Statement: Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU's Access Office or email: [access@valdosta.edu](mailto:access@valdosta.edu).

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## Tentative Schedule – Before Midterm

Week	Lecture	BV Quiz (BVQ), Lecture Notes (LN), Homework (HW), Presentations (P), Class Summary (CS)	Lab
August 17-21	M - No lecture – intro done in lab W - Basidio in-class lecture, Ascospores Kaltura lecture F - Ascospores in-class lecture, Basidios Kaltura lecture	<b>Syllabus BVQ</b> - due Weds, 10am <b>Wednesday LN</b> - due lecture day, 11:59pm <b>Friday LN</b> - due lecture day, 11:59pm	Monday 1-2:15 – Ascospores Course Intro Monday 2:30-3:45 – Basidios Course Intro
August 24-28	M - Basidio in-class lecture, Ascospores Kaltura lecture W - Ascospores in-class lecture, Basidio Kaltura lecture F - Basidio in-class lecture, Ascospores Kaltura lecture	<b>Monday LN</b> - due lecture day, 11:59pm <b>Wednesday LN</b> - due lecture day, 11:59pm <b>Friday LN</b> - due lecture day, 11:59pm	Monday 1-3:50 – Basidios in the field, Ascospores take-home assignment
Aug 31- Sept 4	M - Ascospores in-class lecture, Basidio Kaltura lecture W - Dr. C available for Questions <b>F - Exam 1 (Sept 4) Ascospores in 2202 &amp; Basidios in 2040</b>	<b>Monday LN</b> - due lecture day, 11:59pm <b>EXAM 1!</b>	Monday 1-3:50 – Ascospores in the field, Basidios take-home assignment
Sept 7-11	Labor day - No Class W - HW and Presentation Introduction F - Practice HW, P, PS Cantonwine HW, P & PS Feedback, by 5pm Friday	<b>Presentation Instructions BVQ</b> - due Thursday by 5pm <b>Practice HW &amp; P</b> - due 9:30am Friday <b>Practice CS</b> - due ~10:50am Friday	NO LAB
Sept 14-18	M - Presentation 1 - Gilled genera W/F - Presentation 2 - Boletes Cantonwine HW, P & PS Feedback, by 5pm Friday	<b>HW &amp; P</b> - due 9:30am day of Presentation <b>CS</b> - due ~10:50am day of Presentation	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
Sept 21-25	M - Presentation 3 - Polypores W/F - Presentation 4 - Gasteroids Cantonwine HW, P & PS Feedback, by 5pm Friday	<b>Summary BVQ</b> - over practice & first two presentations - due Monday at 2:30 for Basidios & 3:50 for Ascospores <b>HW &amp; P</b> - due 9:30am day of Presentation <b>CS</b> - due ~10:50am day of Presentation	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
Sept 28 - Oct 2	M - Presentation 5 - Clavarioids W/F - Presentation 6 - Toothed & Jellys Cantonwine HW, P & PS Feedback, by 5pm Friday	<b>Summary BVQ</b> - over practice and first four presentations - due Monday at 2:30 for Basidios & 3:50 for Ascospores <b>HW &amp; P</b> - due 9:30am day of Presentation <b>CS</b> - due ~10:50am day of Presentation	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
October 5-9	M - Presentation 7 - Resupinates, Stereoids, cephaloids W/F - Presentation 8 - Apothecial & Perithecial ascomycetes Cantonwine HW, P & PS Feedback, by 5pm Friday	<b>Summary BVQ</b> - over practice and first six presentations - due Monday at 2:30 for Basidios & 3:50 for Ascospores <b>HW &amp; P</b> - due 9:30am day of Presentation <b>CS</b> - due ~10:50am day of Presentation	<b>M - Part 1 - Collection Project Due</b> Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50

**Tentative Schedule – After Midterm (Oct 8). Last Day to Withdraw is Oct 15.**

Week	Lecture	Lecture Assignment Due Dates	Lab Schedule & Assignment Due Dates
October 12-16	M - Lecture W/F - Lecture	<b>Summary BVQ</b> – all 9 presentations - due Monday at 2:30 for Basidios & 3:50 for Ascos <b>Monday LN</b> - due lecture day, 11:59pm <b>W/F LN</b> - due lecture day, 11:59pm	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
October 19-23	M - Lecture W/F - Lecture	<b>Monday LN</b> - due lecture day, 11:59pm <b>W/F LN</b> - due lecture day, 11:59pm	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
October 26-30	M - HW Activity W/F – HW Activity Cantonwine HW Feedback, by 5pm Friday	<b>HW</b> - due 9:30am day of Activity <i>M - Classification of Chanterelles &amp; Agarics</i> <i>W/F - Classification of Boletes &amp; Polypores</i>	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
Nov 2-6	M - HW Activity W/F – HW Activity Cantonwine HW Feedback, by 5pm Friday	<b>HW</b> - due 9:30am day of Activity <i>M - Classification of Gasteroids &amp; Clavarioids</i> <i>W/F - Classification remaining Basidiomycetes</i>	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
Nov 9-13	<b>Monday, Exam 2 (Nov 9) - Ascospores in BC2202 &amp; Basidios in BC2040</b> W - Exam Review/Lecture F – Exam Review/Lecture	<b>EXAM 2!</b> <b>W LN</b> - due lecture day, 11:59pm <b>F LN</b> - due lecture day, 11:59pm	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
Nov 16-20	M - HW Activity W/F – HW Activity	<b>HW</b> - due 9:30am day of Activity <i>M - Classification of apothecial ascomycetes</i> <i>W/F - Classification of perithecial ascomycetes</i>	Ascospores - Monday 1-2:15 & Weds 10-10:50 Basidios - Monday 2:30-3:45 & Fri 10-10:50
Nov 23-24	M - FunDis Project Presentation Training <b>THANKSGIVING</b>	<b>Asco Classification BVQ</b> - due Monday at 2:30 for Basidios & 3:50 for Ascospores <b>Monday LN</b> - due lecture day, 11:59pm	<b>M - Part 2 Collection Project Due</b> Clean-up lab
Nov 30 - Dec 4	M - Dr. C takes questions about FunDis Projects W - FunDis Presentations posted F - FunDis Presentation Summaries due; Class Discussion	<b>P</b> - Due Weds, 10am <b>CS</b> - Due Friday, 10am	
Dec 7- 11	<b>Cumulative FINAL EXAM – Date &amp; Format TBA</b>		<b>Lab Practical via BVQ or VT, 1-3pm</b> <b>Graduate Project Due</b>