**Mysterious Mushrooms, Malicious Molds—PPWS 2004**
**CRN 1797, Spring 2007**
**3 credits, MWF 12:20PM - 1:05PM, Fralin 002**

Welcome to 'Shrooms! This course will examine the importance of fungi in the natural world and in shaping the course of human history. If you have a basic understanding of biology, you'll do just fine in this class…

**CONTACT INFORMATION.** Dr. David G. Schmale III, 403 Latham Hall, Phone: 231-6943, E-mail: dschmale@vt.edu. Office hours by appointment only (send me an email, and we'll find some time to chat).

**GRADES.** Grades for the course will be assigned based on scores from **two midterm exams** and **one final exam**. There will be three midterm exams, but your grade will be computed using your highest score from only two of these exams. THERE WILL BE NO MAKE-UP MIDTERM EXAMS. IF YOU MISS AN EXAM, YOU WILL NOT RECEIVE ANY POINTS FOR THAT EXAM. The midterms are not cumulative—they cover only the material from lectures and chapters stated in the syllabus. Half of the final exam will be cumulative, and the other half will consist of material presented AFTER Midterm #3. There will be three unannounced quizzes which will serve as extra credit points toward your final grade. THERE WILL BE NO MAKE-UP QUIZZES. IF YOU MISS A QUIZ, YOU WILL NOT RECEIVE ANY EXTRA CREDIT POINTS FOR THAT QUIZ. Final grades will be calculated on a percentage basis: 98+ = A+, 93-97 = A, 90-92 = A-, 88-89 = B+, 83-87 = B, 80-82 = B-, 78-79 = C+, 73-77 = C, 70-72 = C-, 68-69 = D+, 63-67 = D, 60-62 = D-, 0-59 = F.

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| Midterm with the highest score | 250 points possible (25% of the final grade) |
| Midterm with second highest score | 250 points possible (25% of the final grade) |
| Final Exam | 500 points possible (50% of the final grade) |
| **Total** | **1,000 points possible** |
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| Unannounced Extra Credit Quiz #1 | 15 points possible |
| Unannounced Extra Credit Quiz #2 | 15 points possible |
| Unannounced Extra Credit Quiz #3 | 15 points possible |

**TEXTS.**
(1) Hudler, George. MAGICAL MUSHROOMS, MISCHIEVOUS MOLDS. Princeton, NJ: Princeton University Press, 1998, 248. **REQUIRED.**
(2) Kendrick, Bryce. THE FIFTH KINGDOM. Newburyport, MA: Mycologue Publications, 2000, 373. **RECOMMENDED.**

You are expected to read Dr. Hudler's book. Trust me, you'll enjoy it. YOU WILL BE TESTED ON MATERIAL FROM DR. HUDLER'S BOOK. If you are really excited about fungi, purchase Dr. Kendrick's book. It is a joy to read!

**VIRGINIA TECH HONOR SYSTEM.** Virginia Tech's Honor Code will be strictly enforced in this course. All aspects of this course are covered by the honor system. Honesty in your academic work will develop into professional integrity. The faculty and students of Virginia Tech will not tolerate any form of academic dishonesty.

**DISABILITIES.** If you need adaptations or accommodations because of a disability (learning disability, attention deficit disorder, psychological, physical, etc.), or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible.

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| Readings from Hudler's book | Syllabus for PPWS 2004, Mysterious Mushrooms, Malicious Molds | | | | |
|---|---|---|---|---|---|
| Chapters 1 & 2 | Lecture 1 | W | Jan | 17 | Introducing the fungi |
| | Lecture 2 | F | Jan | 19 | How to name a fungus |
| | Lecture 3 | M | Jan | 22 | What fungi do and how they do it: Part 1 |
| | Lecture 4 | W | Jan | 24 | What fungi do and how they do it: Part 2 |
| | Lecture 5 | F | Jan | 26 | How fungi get around |
| Chapters 3 & 4 | Lecture 6 | M | Jan | 29 | Fungi as pathogens of important food crops: Part 1 |
| | Lecture 7 | W | Jan | 31 | Fungi as pathogens of important food crops: Part 2 |
| | Lecture 8 | F | Feb | 2 | Fungi as major forest pathogens |
| | EXAM 1 | M | Feb | 5 | MIDTERM EXAM # 1 (Lectures 1-8) |
| Chapters 9 & 10 | Lecture 9 | W | Feb | 7 | Fungi and food: Beer and wine |
| | Lecture 10 | F | Feb | 9 | Fungi and food: Bread, soy sauce, and cheese |
| | Lecture 11 | M | Feb | 12 | Fungi and food: Commercial mushroom production |
| | Lecture 12 | W | Feb | 14 | Fungi and food: Edible mushrooms from the forest |
| | Lecture 13 | F | Feb | 16 | Poisonous mushrooms |
| Chapter 11 | Lecture 14 | M | Feb | 19 | Fungi as performance enhancers |
| | Lecture 15 | W | Feb | 21 | Fungi as producers of hallucinogens: Part 1 |
| | Lecture 16 | F | Feb | 23 | Fungi as producers of hallucinogens: Part 2 |
| | EXAM 2 | M | Feb | 26 | MIDTERM EXAM # 2 (Lectures 9-16). Drop deadline. |
| Chapters 5 & 6 | Lecture 17 | W | Feb | 28 | Mycotoxins: Part 1 |
| | NO CLASS | F | Mar | 2 | NO CLASS. Enjoy your spring break! |
| | Lecture 18 | M | Mar | 12 | Mycotoxins: Part 2 |
| | Lecture 19 | W | Mar | 14 | Ergot and the Salem Witch Trials |
| Chapters 7 & 8 | Lecture 20 | F | Mar | 16 | Fungal diseases of humans: Part 1 |
| | Lecture 21 | M | Mar | 19 | Fungal diseases of humans: Part 2 |
| | Lecture 22 | W | Mar | 21 | Toxic molds at home and at work |
| | NO CLASS | F | Mar | 23 | NO CLASS. Conference on campus. |
| | Lecture 23 | M | Mar | 26 | Medicinal molds: Part 1 |
| | Lecture 24 | W | Mar | 28 | Medicinal molds: Part 2 |
| | DEMO | F | Mar | 30 | DEMONSTRATION LAB. Interact with some of the concepts from the course. |
| | EXAM 3 | M | Apr | 2 | MIDTERM EXAM # 3 (Lectures 17-24) |
| Chapter 12 | Lecture 25 | W | Apr | 4 | MOVIE: The Rotten World About Us |
| | Lecture 26 | F | Apr | 6 | Fungi as rotters and decayers |
| Chapters 13 & 14 | Lecture 27 | M | Apr | 9 | Forest ecosystem recycling |
| | Lecture 28 | W | Apr | 11 | Insects and fungi: Part 1 |
| | Lecture 29 | F | Apr | 13 | Insects and fungi: Part 2 |
| No readings | Lecture 30 | M | Apr | 16 | Symbiotic relationships between plants and fungi |
| | Lecture 31 | W | Apr | 18 | Popular people in fungal history |
| | Lecture 32 | F | Apr | 20 | Fungi in the arts |
| | Lecture 33 | M | Apr | 23 | Current topics in the study of fungi: Part 1 |
| | Lecture 34 | W | Apr | 25 | Current topics in the study of fungi: Part 2 |
| | Lecture 35 | F | Apr | 27 | Fungi and bioremediation |
| | Lecture 36 | M | Apr | 30 | Fungi and bioenergy |
| | Lecture 37 | W | May | 2 | Review for final exam |
| | FINAL | Sat | May | 5 | FINAL EXAM (50% Lectures 25-35, 50% Cumulative). 10:05am-12:05pm. |