



**MICR 4400, 3 Units (96412)**  
**Fungal Pathogenesis**  
**Fall 2017**  
**Department of Natural and Social Sciences/Biological Sciences**

**Course Information**

**Days/Time:** Tu/Th 8:00 - 9:15 AM

**Location:** Fine Arts (FA) 321

**Prerequisites:** One of the following: MICRO3300, BIOL3400, or consent of instructor.

**Lecturer Information**

**Name:** Valerie Wong, Ph.D.

**Email:** vwong19@calstatela.edu

**Office Hours:** Thurs. 9:30 – 12:30 AM and by appointment in KH A2036

**Course Description**

Fungal Pathogenesis course will focus on the host-fungal pathogen interactions that affect the establishment and outcome of human fungal infections. This course will first cover the basic biology of fungi, then specific pathogens, key virulence factors, the pathogenesis of fungal infections, and host responses. Lectures will be based on a review of current primary literature and review articles. Students will be required to present key primary research articles related to the topic. Group activities in the course will provide opportunities for the students to develop critical reading, data interpretation, presentation, and communication skills.

**Student Learning Outcomes**

This course will emphasize familiarity with fungi in the context of human disease. Students will explore the interactions between pathogenic fungi and human hosts. Students will use current research and scientific literature to understand the establishment and outcome of fungal infection. This course will cover general principles, specific pathogens, key virulence factors, and host responses.

Upon successful completion of this course, students will be able to:

- Understand the medical importance of pathogenic fungi
- Explain the biology and pathogenesis of key fungal pathogens
- Explain strategies fungi use to establish & maintain infection, as well as host defense response.
- Describe treatments for fungal diseases.
- Critically evaluate scientific literature
- Interpret data from scientific research articles
- Compose and present scientific information
- Work cooperatively as a group

**Course and CSULA Policies**

**Academic Honesty:** CSULA students are subject to disciplinary action for several types of academic and related personal misconduct, including but not limited to plagiarism, multiple submission, misrepresentation, and cheating. A single violation may lead to a failing grade.

***“Academic Consequences:***

Faculty have the right to establish the standards by which the academic performance of students will be evaluated, including the consequences of students not meeting some portion or all of the academic requirements of a course through acts of cheating, plagiarism, misrepresentation or collusion. These consequences may include but are not limited to assigning a lowered grade, zero or “F” on an individual assignment, or lowering the student’s grade or assigning an “F” in the course. “

- CSULA Executive Order 1043, Student Conduct Procedures; Appendix D

Further details on CSULA Academic Honesty policies are found here:

<http://ecatalog.calstatela.edu/content.php?catoid=12&navoid=842>

*Student work is subject to evaluation by an automated system that compares each assignment with web sites and a database of prior student papers that grows with each new submission.* For a more detailed look at this process, visit Turnitin <http://www.calstatela.edu/cetl/edtech/student-faq>

**Absences:** Attendance is essential for learning in this class. Chronic tardiness may result in academic underperformance. If you must miss class, it is your responsibility to notify your instructor as soon as possible, preferably before class. Not all work may be made up. A “0” will be assigned for any missed exams, etc. unless the absence is satisfactorily justified (e.g. doctors note). Students are responsible for acquiring the missed material.

**Enrollment:** Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Students should be aware of the current deadlines and penalties for adding and dropping classes: <https://get.calstatela.edu/Registrar.htm>.

**Incomplete Grade Policy:** Incomplete grades can only be assigned if 1. The majority of the coursework has been completed (essentially all work except the final exam), AND 2. The student is passing the course. An Incomplete Grade Form must be submitted.

**Statement of Reasonable Accommodation:**

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, CSULA provides appropriate accommodations and support services to qualified applicants and students with disabilities. These may include, but are not limited to, auxiliary aids/services, such as note takers, audiotaping of courses, sign language interpreters, and assistive-listening devices for hearing-impaired individuals, extended time for and proctoring of exams, and registration assistance. Accommodations and types of support services vary and are specifically designed to meet the disability-related needs of each student based on current, verifiable medical documentation.

*The intent of the Americans with Disabilities Act in requiring consideration of reasonable accommodation is not to give a particular student an unfair advantage over other students, but simply to allow a student with disability to have an equal opportunity for success.*

Arrangements for auxiliary aids/services are available only through the Office of Students with Disabilities. For more information visit the website at <http://web.calstatela.edu/univ/osd/atlc.php>.

**Student Conduct:** Students are expected to comport themselves as mature citizens of the campus community and will conduct themselves in a manner congruent with university policies and regulations. *Furthermore, students are required to be collegial.* I encourage respectful challenging of ideas and ask that we all come to class with open minds. Personal attacks that shut down learning or place particular individuals in a tokenized or isolated position will not be tolerated.

**Electronics Policy:**

Use of electronic devices in class for any purpose other than assigned class work is grounds for removal. The device may be held until the end of class, and you may be asked to leave the room in order to maintain a learning environment for the other students.

**Adaptability:** All portions of this syllabus are subject to change at the instructor’s discretion.

**Assessments**

**Exams:** 1 midterm and 1 comprehensive final exam.

- Exam format may include multiple choice, short answer, and/or essay questions.
- The final exam covers material for the *entire course*, including special seminars, class discussions, lecture content, research articles, and case studies.

**Research paper presentations:** The presentation schedule will be made at the first class meeting. Each student select a recently published primary research article that is relevant to the lecture topic for that day. The presentations are 15 min PowerPoint-style. The student will provide the instructor with an electronic copy of the selected article at least one week before the presentation date for approval. The articles will be posted on Moodle for the other students to access. The presentation will be evaluated based on the presenters’ presentation skill (critical reading, data interpretation, preparation of slides, engagement of audience and timing) and intercommunication with the audience.

**Post-presentation Group Discussion:** All class members are required to read articles before presentations and to participate in the discussion and assignments. The whole class will have group discussion sessions after each presentation. Participation in lectures and presentations will be considered in determining final grades.

**Assignments:** Assignments may be online or in class. In-class assignments cannot be made up, and *attendance is required for credit*.

**Extra credit:** There will be no unplanned extra credit.

**Grading:**

Your grade will be based on the following:

Component	Percentage	Points*
Midterm exam	20%	200
Final exam	40%	400
Research paper presentation	20%	200
Assignments	15%	150
Participation	5%	50
<b>TOTAL</b>	<b>100%</b>	<b>1,000</b>

\* Note: point values are subject to change. Final grades will be calculated based on weighted categories. For instance, the presentation will be 20% of the overall grade, regardless of total points.

Scale for calculating grades:

Grade	Percentage Scale
A	92-100%
A-	90-91%
B+	88-89%
B	82-87%
B-	80-81%
C+	78-79%
C	72-77%
C-	70-71%
D+	68-79%
D	62-67%
D-	60-61%
F	<60%