

Mechanisms of Microbial Virulence Graduate Journal Club
VME6907

Class Period: Period 6 - Wednesdays 12:50 to 1:40pm

Location: Via **Zoom** (links sent weekly) and in person (VAB V3-114)

Academic Term: Spring 2024

Instructor:

Dr. Aria Eshraghi Ph.D.

AriaEshraghi@ufl.edu

352-294-4194

Office Hours: Available upon request

Enrollment

A maximum of 14 students will be enrolled. Faculty and postdoctoral scientists are encouraged to participate, and some will be invited to demonstrate the qualities of an excellent presentation.

Credits

1 unit – Students can enroll in this course up to 4 times for credit, with the permission of the instructor and their departmental graduate coordinator.

Course Description

Covers contemporary topics in host-microbe interactions by focusing on critical analysis of recently published manuscripts. The selected articles will cover the molecular mechanisms that bacteria, viruses and parasites utilize for pathogenesis of various hosts, such as animals, insects, and nematodes.

Course Objectives

Through exposure to research on a variety of model systems and infectious agents, students will:

- Critically evaluate emerging primary literature in the field of microbial virulence
- Understanding of common themes in microbial virulence
- Identify strengths and weaknesses in the approaches utilized to test hypotheses in microbial pathogenesis
- Develop the skills to clearly convey microbiology literature in a manner that is comprehensible to an audience with diverse expertise

Learning outcomes

By the end of the course, students will:

- Examine common and unique mechanisms of microbial virulence
- Critically review recently published research in the field of microbial pathogenesis
- Analyze and critique scientific ideas in a small group through active participation
- Gain experience with explaining research studies in a format that is easily followed by an audience with diverse expertise

Required literature, software, and hardware

- Links to the papers will be provided via email
- Zoom software (if participating online)
- Reliable internet connection (if participating online)
- Properly functioning camera and microphone for presenter (if participating online)

Course Schedule

(Detailed schedule to be provided at the beginning in week 2)

- Week 2 Organizational meeting and discussion of the elements of a good presentation.
Weeks 3-9: Journal club presentations and discussions
Week 10: Spring Break – no class
Weeks 11-14: Journal club presentations and discussions
Week 15: Final journal club presentation, discussion, and course evaluation

Course format

In the first week, each student will select a published paper or preprint manuscript to present during the semester. Students will collaborate with the instructor during manuscript selection to ensure that they are high quality and relevant to the fields of study (listed in the course description). The instructor will send a list of the selected publications to the course participants as early in the semester as possible. Ahead of each of the subsequent meetings, the students are required to read the research paper and submit to the instructor two comments/questions about the paper via email. These submissions are expected to reflect a careful and comprehensive review of the paper and should focus on higher level concepts such as data interpretation, selection of controls, appropriateness of techniques to the experimental questions, adequacy of statistical analysis, etc. Students are required to participate in each discussion through offering verbal comments or written chat comments. Evaluation of the submitted comments and participation will be based on the following criteria: (1-2 points) unsatisfactory understanding of the material, (3-4 points) topical/underprepared comments (5) Insightful/thorough comments and participation. The discussion leader for each week will prepare and deliver a 30-to-40-minute PowerPoint presentation covering the background, relevant details, interpretation, and conclusions of the assigned paper. The discussion leader should encourage the audience to participate by providing commentary and questions throughout the presentation. The discussion leader will be evaluated on the accuracy and rigor of their presentation of the state of the field (10 points), experimental approach (20 points), and interpretations (20 points), and the clarity of their delivery (25 points), according to the attached rubric.

Evaluation and grades

Attendance	12 sessions	x	5 points = 60 points	(25%)
Weekly submission of comments	12 sessions	x	5 points = 60 points	(25%)
Participation in group discussions	12 sessions	x	5 points = 60 points	(25%)
Discussion leader presentation			60 points	(25%)
Total			240 points	(100%)

Grading Policy

Percent	Grade	Grade Points
90.0 - 100.0	A	4.00
87.0 - 89.9	A-	3.67
84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 79.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	F	0.00

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)
[Grades and Grading Policies](#)

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance and participation are required and will be monitored during the weekly meetings.

In cases of unforeseen absences due to serious illness or emergencies, contact Dr. Aria Eshraghi via email with written verification as soon as possible. Other absences must be cleared with Dr. Eshraghi ahead of the missed meeting. Excused absences must be consistent with university policies and require appropriate documentation. Additional information can be found here: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here](#).

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should contact the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: [Notification to Students of FERPA Rights](#)

Campus resources:

Health and wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints