

# **BIOL 691: Host:Pathogen Interactions**

Fall 2015

Tuesday 4:30 pm – 7:10 pm

**Instructor:** Dr. Aarthi Narayanan

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**Office Hours:** By appointment

**Office:** Biomedical Research Laboratory 1010

## **Course description**

All power point presentations for every class will be uploaded to blackboard prior to class.

This course will cover basic concepts of interactions between infectious agents and the human host. Critical concepts include:

- 1) receptor mediated recognition of pathogens by host cells,
- 2) communication between cells to mount anti-pathogen responses,
- 3) pathogen mediated events that help to evade immune responses and
- 4) technological advances to understand interactions between the pathogen and the host.

There is no assigned text book for this class. All relevant material will be provided as power point presentations. All answers to review questions will be contained within the power point presentations. Additional review articles will be provided upon request.

## **Grading:**

- **Oral presentations (10%)**
  - Students will be assigned papers from the literature and will present PowerPoint presentations explaining the papers.
- **Exams 1 through 3 (30% each)**
  - Questions should be answered thoroughly, but concisely. The exam will consist of 6 medium sized essay questions that should be answered in no more than 1 page. Providing well labelled figures is encouraged. A total of 8 questions will be provided in each exam and any 6 questions need to be picked out of the 8. Questions will be picked out of review questions that will be included at the end of every power point.
- **Late Work Policy**
  - Late work will only be accepted if it has been **prearranged** and this is up to the professor's discretion. Exceptions will be made for emergency situations.
- **Final Grade assignment**
  - 90% and above – A; 80 – 89% - B; 70 – 79% - C; Anything less than 70% will be considered as F.

## Class Schedule

<b>Date</b>	<b>Topic</b>
09-01-2015	General overview – AN lecture
09-08-2015	Toll like receptors – AN lecture
09-15-2015	Nod like receptors – AN lecture
09-22-2015	RIG-I like receptors – AN lecture + student presentation
09-29-2015	No class – exam prep time
<b>10-06-2015</b>	<b>Exam 1</b>
10-13-2015	Eukaryotic intercellular communication – AN lecture + student presentation
10-20-2015	Bacterial intercellular communication – AN lecture + student presentation
10-27-2015	Viral mimicry – AN lecture + student presentation
<b>11-03-2015</b>	<b>Exam 2</b>
11-10-2015	HIV:host interactions – Guest lecture + student presentation
11-17-2015	Proteomics technologies to understand host responses – Guest lecture + student presentation
11-24-2015	No class – thanks giving week
12-01-2015	Introduction to bioinformatics analyses – Guest lecture
<b>12-08-2015</b>	<b>Exam 3</b>

## Disability Statement

- If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703.993.2474. All academic accommodations must be arranged through that office.

## Honor Code Statement

- George Mason University has an Honor Code, which requires all members of this community to maintain the highest standards of academic honesty and integrity. Cheating, plagiarism, lying, and stealing are all prohibited
- All violations of the Honor Code will be reported to the Honor Committee.
- See [honorcode.gmu.edu](http://honorcode.gmu.edu) for more detailed information.

## Enrollment Statement

- Students are responsible for verifying their enrollment in this class.
- Schedule adjustments should be made by the deadlines published in the Schedule of Classes.

- After the last day to drop a class, withdrawing from this class requires the approval of the dean and is only allowed for nonacademic reasons.

**Articles for class presentations:**

Students are welcome to pick articles of their own choice for presentation, but are required to consult with the professor at least one week prior to presentation. Review articles are OK, as long as they are thorough and convey the required information about the topic and they don't overlap with the material that will be presented by the professor. However, primary research articles are preferred. Please provide the article of choice to the professor one week prior to the actual presentation so that the article may be provided to the other students. All students are expected to read the chosen article prior to class to facilitate interactions.