

# Syllabus



MVP Core  
CAMB 7060  
Spring Semester 2024

## Course Directors and Contact Info:

**Sunny Shin**, Johnson Pavilion 201B, 215-746-8410, [sunshin@pennmedicine.upenn.edu](mailto:sunshin@pennmedicine.upenn.edu)

**Boris Striepen**, Hill Pavilion, 215-573-9167, [striepen@vet.upenn.edu](mailto:striepen@vet.upenn.edu)

**Jianxin You**, Johnson Pavilion 201C, 215-573-6781, [jianyou@vet.upenn.edu](mailto:jianyou@vet.upenn.edu)

## Section Directors

**Virology II** : Jianxin You/Elizabeth White

**Parasitology I & II**: Boris Striepen/ Christopher A Hunter

## Description

The MVP Core class provides CAMB-MVP students with key fundamental knowledge of Bacteriology, Virology, and Parasitology. The course runs through the Fall and Spring for first year CAMB-MVP students and other students interested in this topic. The course starts with 3 overview lectures and is then organized into three sections that cover principles of Bacteriology, Virology, and Parasitology.

## Prerequisites

None

## Enrollment criteria

Required for all first year CAMB-MVP students. Non-CAMB-MVP students by permission of course directors.

### Schedule

MWF, 1:45-2:45

### Location

Johnson Pavilion 209

## Format

- Lecture
- Discussion - Themed lecture sets with intermittent journal article discussion groups

## Student assignments

One research proposal for each section (bacteriology, virology, parasitology)

Journal article presentations within each subsection

Additional assignments that will vary by subsection

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## Grading Criteria:

40% presentation-based

40% research proposal-based

20% participation-based (participation in paper discussions, asking questions during lecture, participating in study section, etc.)

## Course Goals

Students who complete this course successfully will have gained:

- A broad introduction to host-pathogen interactions
- A survey of bacteriology, virology and parasitology with emphasis on common and distinct themes
- Ability to analyze relevant primary articles in-depth
- Ability to design hypotheses to address a gap in knowledge and design experiments to test the hypothesis

We ask that all members of the MVP core community – the instructors, lecturers, and students – work together to create a supportive, inclusive environment that welcomes all students, regardless of their race, ethnicity, gender identity, sexuality, religious beliefs, physical or mental health status, or socioeconomic status. Diversity, inclusion, and belonging are all core values of this course. All participants in this course deserve to and should expect to be treated with respect by other members of the community.

Our class should be a space where everyone feels welcome and safe. In order to facilitate a welcoming environment, all participants in this course are expected to :

- Exercise consideration and respect in their speech and actions.
- Attempt collaboration and consideration, including listening to opposing perspectives and authentically and respectfully raising concerns, before conflict.
- Refrain from demeaning, discriminatory, or harassing behavior and speech.

It is also important to us that everyone who participates in this class has the resources to do so. Please let us know if you need any special accommodations in the curriculum, instruction or assessments of this course to enable you to participate fully. We will make a full effort to maintain the confidentiality of any information that you share with us.

## Attendance Policy

Students are expected to attend all of the classes and paper discussions, as participation is an important aspect of the course. We understand that expected or unexpected things can happen during the semester that may prevent you from attending class. In that case, we ask that you contact us ahead of time to let us know if you are unable to attend.

## Guidelines/Expectations for Student Paper Presentations

## **Students not assigned to present:**

1. Read the paper in advance of the presentation day.
2. Come prepared to present some of the figures and participate actively in the discussion with observations and answers to questions about approaches or interpretations by the authors.

## **Students assigned to present (2-3 students for each paper):**

1. Meet the faculty mentor for the paper well in advance of the presentation to go over expectations and discuss the background for the paper. It is your responsibility to establish contact with the faculty member.
2. Format will be a journal club style presentation via PowerPoint and should contain the following elements:
  - A. The assigned students will give a brief presentation of the background of the research including rationale and key previous findings upon which it is based,
  - B. The other students in the class will be asked to volunteer and present key findings in the figures.
  - C. The assigned students will be asked to give a critical review of the major findings and interpretations and the significance of the paper overall.
3. Meet with the faculty mentor for the paper immediately after your presentation for feedback.

## **Faculty Mentor:**

1. The assigned faculty member will meet with presenters prior to the presentations.
2. Faculty mentors are encouraged to give brief comments at the end of the presentation session about where the paper fits into the general thrust of research in their field.

## **Guidelines/Expectations for Student Research Proposals:**

The students will work in pairs to write a 2 page research proposal that is due approximately one and a half weeks before the end of the bacteriology, virology, and parasitology sections. The proposals be based on one of the discussion papers or another paper of the students' choosing. The proposal will be written in a format similar to the NSF Graduate Research Fellowship Program research proposal, with relevant background, hypothesis, and two specific aims addressing different aspects of the hypothesis, along with approximately 5-10 references.

The research proposals will then be assigned to two different students, who will serve as the primary and secondary reviewer. The proposals will be discussed and reviewed at the end of the bacteriology, virology, and parasitology sections. Constructive feedback on the proposals will then be provided to the students.

## **Course Directors**

### **Sunny Shin, Ph.D.**

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**Bacteriology Section**

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**Virology Section**

**Elizabeth White, Ph.D.**

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**Parasitology Section**

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MVP Core  
 CAMB 706  
 Spring Semester 2024

***Virology Section II***  
**Course Directors: Jianxin You and Elizabeth White**  
**CAMB 706 – Virology Section II**  
**MWF, 1:45-2:45pm Johnson Pavilion 209**

DATE	D A Y	TITLE	LECTURER	EMAIL
1/19/24	F	Antiviral therapeutics	Dr. Bates	<a href="mailto:pbates@penmedicine.upenn.edu">pbates@penmedicine.upenn.edu</a>
1/22/24	M	Innate Recognition	Dr. Cherry	<a href="mailto:cherrys@penmedicine.upenn.edu">cherrys@penmedicine.upenn.edu</a>
1/24/24	W	Immune Evasion	Dr. Cherry	<a href="mailto:cherrys@penmedicine.upenn.edu">cherrys@penmedicine.upenn.edu</a>
1/26/24	F	Coronaviruses (lecture presented virtually)	Dr. Weiss	<a href="mailto:weissr@penmedicine.upenn.edu">weissr@penmedicine.upenn.edu</a>
1/29/24	M	Viral Transformation and Cancer I	Dr. You	<a href="mailto:jianyou@penmedicine.upenn.edu">jianyou@penmedicine.upenn.edu</a>
1/31/24	W	Viral Transformation and Cancer II	Dr. White	<a href="mailto:eawhite@penmedicine.upenn.edu">eawhite@penmedicine.upenn.edu</a>
2/2/24	F	Viral DNA replication & repair	Dr. Weitzman	<a href="mailto:weitzmanm@email.chop.edu">weitzmanm@email.chop.edu</a>
2/5/24	M	<a href="#">Student Paper Presentation</a>	Dr. Price	<a href="mailto:aprice@wistar.org">aprice@wistar.org</a>
2/7/24	W	Epigenetics and viral latency	Dr. Lieberman	<a href="mailto:lieberman@wistar.org">lieberman@wistar.org</a>
2/9/24	F	<a href="#">Student Paper Presentation</a>	Dr. Tempera	<a href="mailto:itempera@wistar.org">itempera@wistar.org</a>
2/12/24	M	Viral Phylodynamics	Dr. Louise Moncla	<a href="mailto:lhmoncla@vet.upenn.edu">lhmoncla@vet.upenn.edu</a>
2/14/24	W	Virology Study Section	Drs. White and You	<a href="mailto:eawhite@penmedicine.upenn.edu">eawhite@penmedicine.upenn.edu</a> <a href="mailto:jianyou@penmedicine.upenn.edu">jianyou@penmedicine.upenn.edu</a>
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