COURSE GOALS: There are several goals for this course. First, building on the Immunology 506 foundation, we will further introduce you to basic principles, and current and emerging concepts in cellular immunology. Second, integrating with Biom 555, we will introduce you to more basic principles, state-of-the-art techniques, and current and emerging concepts in molecular immunology. Third, through the student-run journal clubs, we will work together to improve your ability to: critically evaluate primary literature, orally present your thoughts to an audience, and engage in scientific discussion.

COURSE DESCRIPTION: Faculty lectures will be taught from an experimental standpoint and assume basic knowledge of the immune system. To the greatest extent possible, faculty will teach through primary literature, with reference to reviews for background information. For each faculty lecture, one or more students will lead a journal club on one of the assigned papers.

READINGS: Each faculty is expected to provide a few reviews and possibly primary papers at least one week prior their lecture. Students should read these before the lectures. Faculty will assign at least one journal club paper that students also should read before the lecture class. Students presenting journal club need to read these before the presenting and likely will need to read the recommended reviews and papers to sufficiently prepare for their presentations. Text that also could be used for background reading include:

- Janeway's Immunobiology (8th edition), by Murphy et al; Garland Press
- Fundamentals of Immunology (7th edition) by Paul (ed). Raven Press

Readings and journal club papers will be sent via email. Faculty lectures may be available by request, though often not until after the lecture.

JOURNAL CLUB EXPECTATIONS: Students should present: 1) a few introduction slides on background and the problem addressed or hypothesis tested, 2) schematics outlining experimental approaches or procedures for those that are complicated and/or not routine, 3) essential figures or figure panels, which may be all of them in a Nature, Science, or JI paper or 50-75% in Immunity, Cell, JEM, or Nature Immunology paper, 4) figures or figure panels from supplementary materials if needed, 5) a few discussion/closing slides to place the authors' findings within the contexts of the immediate field and immunology or biology as a whole, and 6) a few slides on linger or new questions you would answer and experiments that you would conduct to do so. Presenters should be critical of the data by pointing out potential flaws and attempt to build an interaction/discussion with the audience, while keeping the presentation time to an hour. Audience members should ask questions, make points, and engage in discussion as often as possible, while letting the presenter get through all of their slides.

FACULTY EXPECTATIONS: In addition to providing reading materials ahead of time, lecturing on Tuesdays, and moderating Thursday journal clubs, faculty are expected to be available to meet with students should they want to meet and discuss their presentations.

FINAL GRADES: Students' grades will be based on their journal club presentations—60% individual and 30% group—and 10% on their participation (asking questions and engaging in discussions) during all classes.
SCHEDULE
Tuesdays 1:30 – 3:30 pm and Thursdays 1:00 – 3:00 pm in 301 BRB with these exceptions:

- Tuesday, January 19 // 1:00 – 3:00 pm // 301 BRB
- Monday, February 22 // 12:00 – 2:00 pm // 501 BRB
- Thursday, April 7 // 1:00 – 3:00 pm // 701 BRB
- Wednesday, April 13 // 10 am – 12 pm // 204 SCL
- Monday, May 2 // 10 am – 12 pm // 1101 BRB

* Tues 1/19
Tuesdays 1/19 Wherry

* Thurs 1/21
Thursdays 1/21

* Tues 1/26
Tuesdays 1/26 Lopez

* Thurs 1/28
Thursdays 1/28 Jen / Megha

* Tues 2/2
Tuesdays 2/2 Shin

* Thurs 2/4
Thursdays 2/4

* Tues 2/9
Tuesdays 2/9 Bassing

* Thurs 2/11
Thursdays 2/11

* Tues 2/16
Tuesdays 2/16 Bassing

* Thurs 2/18
Thursdays 2/18 Bassing

* Mon 2/22 (12 – 2 pm)
Monday 2/22 (12 – 2 pm) Kelly / Jacob

* Tues 2/23
Tuesdays 2/23

* Thurs 2/25
Thursdays 2/25 Romberg

* Tues 3/1
Tuesdays 3/1 Vahedi

* Thurs 3/3
Thursdays 3/3 Wells

* Tues 3/8
Tuesdays 3/8 JJ / Laura

* Thurs 3/10
Thursdays 3/10

* Tues 3/15
Tuesdays 3/15

* Thurs 3/17
Thursdays 3/17

* Tues 3/22
Tuesdays 3/22 Weiner

* Thurs 3/24
Thursdays 3/24 Joe / Lex + JJ

* Tues 3/29
Tuesdays 3/29

* Thurs 3/31
Thursdays 3/31 Luning Prak

* Tues 4/5
Tuesdays 4/5 Behrens

* Thurs 4/7
Thursdays 4/7 Jeff / Jen + Joe

* Tues 4/12
Tuesdays 4/12 Betts

* Wed 4/13 (10 am – 12 pm)
Wednesday 4/13 (10 am – 12 pm) Henao-Mejia

* Thurs 4/14
Thursdays 4/14

* Tues 4/19
Tuesdays 4/19 Beiting

* Thurs 4/21
Thursdays 4/21

* Tues 4/26
Tuesdays 4/26 Porrett

* Thurs 4/28
Thursdays 4/28 Meijome

* Mon 5/2 (10 am – 12 pm)
Monday 5/2 (10 am – 12 pm) Kelly + Jacob / Megha + Cam + Tomas

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* Mouse Models of Chronic Infection
* NO CLASS
* Virus-Host Interaction
* Journal Club (Wherry/Lopez)
* Bacterial Immunity
* NO CLASS
* Immunology of Parasitic Infections
* Journal Club (Shin/Scott)
* Lymphoid Malignancies
* Class-switch Recombination & Hypermutation
* Journal Club (Bassing/Bassing)
* Primary Immunodeficiencies
* Journal Club (Romberg)
* Systems Biology of Immune Cells
* Epigenetic Control of Immune Cell Fates
* Journal Club (Vahedi/Wells)
* TBA
* NO CLASS – BIOM 555 MIDTERM
* TBA
* Vaccines
* Journal Club (Weiner/TBA)
* NO CLASS
* Autoimmune Disorders
* Journal Club (Luning Prak/Behrens)
* HIV Pathobiology
* Mucosal Immunity
* IFI-CFAR Immunology of HIV Symposium
* The Microbiome and Host Immunity
* NO CLASS
* Transplantation
* Journal Club (Porrett)
* Journal Club (Henao-Mejia/Beiting)