

**Human Genetics 20XX**  
**Genetics of Complex Diseases II**  
**Spring Term 2020; Tuesday and Thursday, 2:30-3:55 PM**  
**A215 Crabtree Hall**

Instructor: F. Yesim Demirci, MD  
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Office hours by appointment

**Course Description:**

This course will provide an overview of genetic and molecular basis of complex human diseases with primary focus on immune-mediated conditions, autoimmune diseases, and common eye disorders. Common human disorders largely contribute to the public health burden of disease and are influenced by a complex interplay of genetic, epigenetic, demographic, and environmental risk factors. Selected examples will be used in the classroom to illustrate the multifactorial nature of complex human diseases. Identifying multiple genetic variants/loci involved in common disease susceptibility and understanding the biological functions/pathways impacted by complex interactions of these genetic factors with other risk factors/exposures constitute an essential step towards improving the prevention, diagnosis, and management of these common conditions. This course will also provide an overview of the immune system and microbiome as related to their emerging important role in influencing the development and/or prognosis of a diverse array of complex human diseases.

**Learning Objectives:**

After completion of this course, the student will be able to:

- Describe the complex and multifactorial nature of common human diseases.
- Describe the complex genetic architecture and molecular basis of selected diseases of public health importance.
- Recognize and discuss the emerging important role of the immune system and microbiome in influencing the development and/or prognosis of various human diseases.
- Apply the knowledge gained in the classroom to conduct and/or interpret research relating to complex human diseases.

**Prerequisites:**

HUGEN 20XX - Genetics of Complex Diseases I

**Required Textbooks/Articles/Readings:**

There is no required textbook for this course.  
Lecture notes and suggested readings will be made available on CourseWeb.

## Student Performance Evaluation and Grading Scale:

Grades will be assigned based on four weekly quizzes (take-home, graded for completion, collectively 10% of final grade) and a final exam (in-class, graded for correctness, 90% of final grade).

The following will be the grading scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
<60%	F

## Class Schedule:

<u>Date</u>	<u>Topic/Focus</u>	<u>Take-home Quiz</u>
3/24	The Immune System - Part 1	
3/26	The Immune System - Part 2	Quiz 1 (distributed)
3/31	Immunogenetics	Quiz 1 (due)
4/2	Eye Diseases - Part 1	Quiz 2 (distributed)
4/7	Eye Diseases - Part 2	Quiz 2 (due)
4/9	Immunological Tolerance	Quiz 3 (distributed)
4/14	Autoimmune Diseases - Part 1	Quiz 3 (due)
4/16	Autoimmune Diseases - Part 2	Quiz 4 (distributed)
4/21	Microbiota / Microbiome	Quiz 4 (due)
<b>4/23</b>	<b>Final Exam</b>	

## Accommodation for Students with Disabilities:

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 as early as possible in the term.

## Academic Integrity Statement:

All students are expected to adhere to the school's standards of academic honesty. Cheating/plagiarism will not be tolerated. The Graduate School of Public Health's policy on academic integrity, which is based on the University policy, is available online in the Pitt Public Health Academic Handbook [www.publichealth.pitt.edu/home/academics/academic-requirements](http://www.publichealth.pitt.edu/home/academics/academic-requirements). The policy includes obligations for faculty and students, procedures for adjudicating violations, and other critical information. Please take the time to read this policy.

## Sexual Misconduct, Required Reporting and Title IX Statement:

The University is committed to combatting sexual misconduct. As a result, you should know that University faculty and staff members are required to report any instances of sexual misconduct, including harassment and sexual violence, to the University's Title IX office so that the victim may be provided

appropriate resources and support options. What this means is that as your professor, I am required to report any incidents of sexual misconduct that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:  
A list of the designated University employees who, as counselors and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here:  
[www.titleix.pitt.edu/report/confidentiality](http://www.titleix.pitt.edu/report/confidentiality)

An important exception to the reporting requirement exists for academic work. Disclosures about sexual misconduct that are shared as part of an academic project, classroom discussion, or course assignment, are not required to be disclosed to the University's Title IX office.

If you are the victim of sexual misconduct, Pitt encourages you to reach out to these resources:

- Title IX Office: 412-648-7860
- SHARE @ the University Counseling Center: 412-648-7930 (8:30 A.M. TO 5 P.M. M-F) and 412-648-7856 (AFTER BUSINESS HOURS)

If you have a safety concern, please contact the University of Pittsburgh Police, 412-624-2121.  
Other reporting information is available here: [www.titleix.pitt.edu/report](http://www.titleix.pitt.edu/report)

Statement from the Department of Gender, Sexuality, and Women's Studies  
[This statement was developed by Katie Pope, Title IX Coordinator, in conjunction with GSWS instructors.]

### **Diversity Statement:**

The University of Pittsburgh Graduate School of Public Health considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Pitt Public Health is committed to creating and fostering inclusive learning environments that value human dignity and equity. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others. While intellectual disagreement may be constructive, no derogatory statements, or demeaning or discriminatory behavior will be permitted.

If you feel uncomfortable or would like to discuss a situation, please contact any of the following:

- the course instructor;
- the Pitt Public Health Associate Dean for Diversity at 412-624-3506 or [nam137@pitt.edu](mailto:nam137@pitt.edu);
- the University's Office of Diversity and Inclusion at 412-648-7860 or <https://www.diversity.pitt.edu/make-report/report-form> (anonymous reporting form).

### **Classroom Recording Statement:**

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use but may not be further copied, distributed, published, or otherwise used for any other purpose.

### **Copyright Notice:**

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