

## **GENETICAL ETHICS PCB4085 / GMS6221**

### **Course Description**

Presentation and critical discussion of relevant topics pertaining to ethics, science policy, and translation in genetics research. Responsible conduct of research is also covered. Students are expected to have completed readings on the date assigned, email discussion questions to the instructor prior to class meeting time, and to bring their insights to class discussion. Be prepared to provide both scientific and social critiques of the readings. The Team Projects will be discussed by the instructors and may consist of a YouTube video, podcast, Wikipedia entry, letter to the editor of a journal (*e.g. Nature Reviews Genetics, Science, Trends in Genetics, etc.*), or similar public forum.

### **Credit Hours-1**

Pre-requisites and Co-requisites: PCB 3063, AGR3303, MCB4522 or consent of instructor.

### **Instructor Information**

William Allen, J.D.

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### **Program Assistant Information**

**Bernie Amaro**

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### **Course Meeting Time: Thursday Period 7 (1:55-2:45)**

Course Meeting Location: Medical Science Building (MSB) CG 56 (basement)

### **Course Website**

Course materials and related information will be posted on the course Canvas website. You are responsible for all announcements made in class and/or posted on the course website for this course as well as instructions sent to your UF e-mail address.

### **Materials and Supplies Fees**

None

### **Textbooks**

There is no required textbook; readings will be provided via Canvas.

### **Class demeanor**

Students are expected to maintain a professional and engaged presence in the class at all times. Students need to arrive on time, as we only have 50 minutes per week face to face. Cell phones should be off and put away during class meetings. Use of laptops, tablets, etc. is acceptable providing they are being used for class purposes (i.e. to look up relevant information, take notes, refer to articles posted online, etc.).

### **Grading**

Class participation means actively and critically engaging the readings, and bringing your perspective and questions to the class. The Canvas site is a great place to get discussion started, and to ask discussion leader(s) for suggestions for current, related literature. Relevant posts are required 24 hours prior to class each week. Current class participation grades will be available weekly on Canvas.

#### *Grading schema:*

20% of the final grade comes from your performance as discussion leader

15% of the final grade comes from face to face class participation

15% of the final grade comes from your posts to the discussion board

30% of the final grade comes from the Team Projects

20% of the final grade comes from short papers (graduate students are also required to watch on-line lectures on NIH recommended topics related to responsible conduct of research)

### **Attendance Policy:** attendance is required.

Requirements for class attendance and work in this class are consistent with university policies that can be found in the catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

### **Course Evaluations**

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>

**Grade Curve Policy:** This course will not have a curve.

**Expectations:**

All students are expected to have completed readings before the date assigned, post comments to Canvas at least 36 hours prior to class, and to participate in class discussion. Please see below for more details.

- You are required to **lead discussion** with a partner at least once per semester. Your grade will be based on your organization, and on your ability to engage the other students in discussion. You should be prepared to respond to discussion posts in your presentation. Many presentations involve a short powerpoint presentation to get things going, but this is not required *and must be no more than 5 minutes long*. Be creative and engage your peers in meaningful discussion!
- You are required to **post to the discussion board** at least 36 hours prior to class, starting with week two. The early posting allows the discussion leader(s) for the week to be able to respond to any questions you may raise (see above). To receive full credit, your discussion posts need to be substantive (beyond “what she said”), but do not necessarily need to be long.
- **Short paper** should be 550-600 words and based on the readings for that week. You may choose one topic from any of those indicated on canvas. You must turn in the paper by the date indicated; each topic has a unique due date immediately prior to our covering the material in class. You will receive a score and relevant feedback. This will be your final grade, unless you rewrite the paper. If you choose to rewrite your paper by the deadline (one week following return of the graded paper), it will be re-graded and the second score recorded as your final grade (even if the second score is lower, which would be unusual).

**Team Projects:** Grades for the Team Projects will be assigned by the instructors. The subject areas are open: anything related to ethics and genetics is fair game. Here are some milestones for the projects. The instructors will provide feedback after each milestone. Failure to complete milestones on time will impact your grade (successful milestone completion = 10% of the Team Project grade). The grade for your presentation is based in part on your preparation for the presentation, and in part on your ability to involve your teammates in discussion.

- Communicate team composition and topic (6 September)
- Select feasible venue/medium for team project; explain and provide rationale for your choice, and demonstrate that you have or can acquire the skills to execute the project as described (13 September)
- Detailed outline of what your project will consist of including medium (11 October)
- There will be both peer and instructor evaluation of completed projects.

**Course Outline (topics covered by week or by class period)**

Week	Date	General Topic	Specific Topic
1	8/23	Introduction to Ethics and Policy	Plagiarism; responsible conduct of research
2	8/30	Research Integrity: The Hwang Woo Suk Stem Cell Episode	Research misconduct; authorship responsibilities and publication; peer review
3	9/6	Scientific Research and Public Decision-making	Responsibilities of scientists to educate, inform, and listen; reproducible research movement
4	9/13	History of Eugenics	Roots of eugenics; social construction of race
5	9/20	Race, Ethnicity, and Identity in Genetics Research	Human subjects research with vulnerable populations
6	9/27	Genetic Testing, Genetic Privacy	Genetic testing and discrimination; identifiability
7	10/4	What is Life?	Synthetic biology and “nature”
8	10/11	Genetic Selection: Present Day	Pre-implantation genetic diagnosis and related ethics
9	10/18	Genetic Selection: the Future	CRISPR, germline manipulation, etc.
10	10/25	Genetics and Intellectual Property (Patenting Life)	Data management practices; mentor and trainee responsibilities
11	11/01	Scientific Research and Conflicts of Interest	Protection of human subjects and other COI
12	11/08	Chimeras	Ethical issues in research with non-human animals
13	11/15	Biological Warfare	Dual-use technologies
14	11/29	Student determined content	

## Grading Scale

Point Range (%)	Letter Grade	GPA equivalent
≥ 90.00	A	4.0
86.7 – 89.9	A-	3.67
83.3 – 86.6	B+	3.33
80.0 – 83.2	B	3.0
76.7 – 79.9	B-	2.67
73.3 – 76.6	C+	2.33
70.0 – 73.2	C	2.0
66.7 – 69.9	C-	1.67
63.3 – 66.6	D+	1.33
60.0 – 56.7	D	1.0
56.7 – 59.9	D-	0.67
< 56.7	E	0

Note that a “C-“ will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

## U Matter, We Care

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 911.

## UF Counseling Services

- Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:  
UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological

and psychiatric services.

Career Resource Center, Reitz Union, 392-1601, career and job search services.

- Many students experience test anxiety and other stress-related problems. “A Self Help Guide for Students” is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their web site: <http://www.counsel.ufl.edu/>.

### **Honesty Policy**

- All students registered at the University of Florida have agreed to comply with the following statement: “I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.”
- In addition, on all work submitted for credit the following pledge is either required or implied: “*On my honor I have neither given nor received unauthorized aid in doing this assignment.*”
- If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at: <http://www.dso.ufl.edu/judicial/procedures/academicguide.html>.

### **Accommodation for Students with Disabilities**

- Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drp/services/>.
- It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

**Software Use:** All faculty, staff and student 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.