BIOL 250: CURRENT TOPICS IN THE BIOSCIENCES
Mon, Thurs. 2:45-4:00, 3 cr. Rm. 926 HN
TENTATIVE SYLLABUS, SPRING 2021

Course Description: Seminar focusing on topics of current relevance such as emerging and re-emerging diseases, tuberculosis, malaria, AIDS, coronaviruses (various aspects of the COVID-19 pandemic, SARS, MERS), genetic engineering, genetic testing, gene editing, stem cell research, global warming, pharmaceuticals, vaccines, vaccine development, microbiome, neurological disorders: Chronic Traumatic Encephalopathy (CTE), Alzheimer's, Parkinson's, PRIONS, Autism, Climate Change . Coverage includes not only the science, but the social, legal, political and ethical issues associated with each topic. You should also consider examining how government agencies (*eg*. FDA, USDA, EPA, CDC) use science to form public policy. **Include the biology associated with each topic in your oral presentation and paper.**

Pre-or Co-requisites: ENGL 120, one semester of introductory laboratory science.

The class will be taught via ZOOM. You will need to keep the video on during the entire class.

Recommended Readings: Readings from Scientific American, Science, Nature, other scientific journals, Discover, The New York Times, books. Journal articles are primary reference sources for paper. Do not use more than **2** or **3** websites as references. **You should have more than ten references.**

Grading: 60% of the grade is based upon an oral presentation (20%) and a written paper (40%) (15-20 pages, including a bibliography of primarily journal articles resulting from a literature search) on a particular aspect of a "current topic" approved by instructor. The paper will be graded on form as well as content. **Be sure to cite references in your paper**. Look at page 2 of this syllabus for examples of how to write references. Students can submit drafts of papers for feedback during the development of the term paper. Write three essays (no longer than one page each) on three of the presentations by guest lecturers, a GMO documentary, or the film GATTACA. State topic and lecturer or film, state what interested you, and why you liked the presentations; 4% each=12%. Detailed comments on the oral presentations submitted to me will each count 1/2 point towards your final grade (20 presentations= 9.5 points; presenters equal the other ½ point which everyone gets). Receipt of annotated bibliography, paper outline/organization of paper and introduction, on dates indicated, count 3 points each, for a total of 9%. The 12%, 10%, 9%, and 9% for attendance taken via ZOOM will count 40% towards the final grade.

TENTATIVE SCHEDULE

Feb.	1	Introduction. Overview of course, requirements and potential topics discussed.
	4	Introductory video and discussion of video. Final determination of topics. Guide to Annotated Bibliography and Organization of paper handouts. Discussion of paper and oral presentations.
	8	Prof. Tony Doyle, Reference Librarian. Science literature searches using the Hunter College Library.
	11	Overview of Prokaryotes and viruses for Microbiome discussion
	18	Overview continued and Human Microbiome started. **Annotated bibliography due**.
	22	Human Microbiome
	25	GMO Documentary Video. **Draft of abstract/introduction/overview of paper due.**
March	1	GMO video ending. Discussion of video.
	4	Lecture on Emerging Diseases. **Outline/organization of paper due**
	8	Prof. Jayne Raper: Global Health Issues PowerPoint presentation.
	11	Prof. Patricia Rockwell: Stem Cells PowerPoint presentation.
	15	Prof. Allan Frei, Department of Geography: NYC Water Supply
	18	GATTACA film shown.
	22	End of film presented and film discussed
	25	Coronavirus lecture
April	5	Coronavirus lecture continued
	8	Current Topics in Evolution
		Oral presentations begin. Drafts of paper can be handed in at any time for evaluation.

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May 3
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13
17 Final papers due. You will be given a final questionnaire to fill out.

The oral presentations will be reviewed with respect to content and organization. Email your presentation to Dr. Raps at least two days before presentation for suggestions or comments. The goal is to learn how to give a clear, informed talk in public to an audience.

Learning Goals

Develop ability to evaluate

1. Evidence for or against a particular scientific theory or issue
2. Impact of technological scientific discoveries on our personal privacy; is implementation of the discovery ethical?
3. Learn to think critically about issues, especially on scientific issues resulting in scientific/public policies; be able to find, understand and discuss the scientific principles underlying these policies.

All of these learning goals should lead you to be able to clearly articulate and provide scientific evidence for or against a particular issue associated with a current topic in biology. You should leave the course with the ability to clearly give an oral presentation (discuss) and write about the topic chosen.

Plagiarism Statement

"Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures."

The information you will need to submit your paper to **turnitin** is found below.

Enrollment key: SRAPS

Class ID: 28151999

Zoom link: BIOL 250

Join Zoom Meeting

https://huntercollege.zoom.us/j/95194913947

Suggestion for how to write references. If you decide to use a different format, all of your references should be in that same format.

Recommended order for references

(Year). Authors. Title of Paper. Journal, volume: page numbers (first and last pages)

journal article

(2020) Chang, Wei-Ting; Liu, Ping-Yen; Gao, Zi-Han; Lee, Shih-Wei; Lee, Wen-Kai; Wu, Sheng-Nan. Evidence for the Effectiveness of Remdesivir (GS-5734), a Nucleoside-Analog Antiviral Drug in the Inhibition of I (K(M)) or I (K(DR)) and in the Stimulation of I (MEP). *Frontiers in pharmacology*; 11:1091-1094.