NJIT BIOLOGY

Course Syllabus

FALL 2019

BIOLOGY 400-001: BIOLOGY IN SCIENCE FICTION

INSTRUCTORS:	Dr. John Yarotsky	**EMAIL:**	yarotsky@njit.edu
OFFICE:	Central King Building 340C	**COURSE WEBSITE:**	https://canvas.njit.edu/
COURSE SCHEDULE:	T, F: 1:00pm - 2:20pm in CKB 219	**OFFICE HOURS:**	By Appointment Only (Email)

COURSE DESCRIPTION: Popular science fiction media will be utilized to initiate thinking critically and creatively about the biological sciences; from the molecular level to whole organism physiology. Students will explore the potential biology of fictitious organisms, and determine real-life analogues. These topics will be used as a vehicle to improve scientific writing and to apply biological knowledge in a new and unique way.

PREREQUISITES: R120:340/Biol 340 Mammalian Physiology or R120:345 Comparative Physiology and, at least one course from the following list: R120:355 Cell Biology, R120:356 Molecular Biology, R120:352 Genetics

REQUIRED TEXT: There is no textbook to purchase for this course, however I have attempted to condense most (if not all) of the materials into a packet. We will have frequent readings, which will either be included in this text or posted to the course Canvas site (https://canvas.njit.edu/). Additionally, announcements will be made through this site and assignments will be turned in there as well. If you are a Rutgers student, you will need an NJIT UCID to get access to the site. If you do not already have one, you can request one at https://mailsys.njit.edu/~accts/cgi-bin/new. PLEASE be sure that you have gone into your profile and changed your preferred e-mail to an account you check regularly. You will automatically be assigned an NJIT e-mail address and this will be the default unless you change it. **Please ensure you can access the Canvas site as soon as possible!**

LEARNING OBJECTIVES:

a. Students will develop critical thinking skills, and use them to evaluate relevant biological phenomena.
b. Students will collaborate equally and effectively with other students in the investigation of scientific questions.
c. Students will gain a unique understanding of biology and new perspectives on how to employ their knowledge.
d. Students will effectively communicate scientific information via the spoken and written word through active learning.

GRADING POLICY: Your grade will be determined based on participation, practical quizzes, assignments, presentations and a written project. Assignments will be graded with the following perspective: doing the minimum listed in an assignment description will likely earn you a B on that assignment (remember an A means exceptional).

Assignment	Points
Attendance/Participation/Discussion	100 points
Presentations	100 points
Assignments	100 points
Scientific Paper	100 points
TOTAL	**400 points**

Grading Scale			
A:	90% +	**B+:**	85-90%
B:	80-85%	**C+:**	75-80%
C:	65-75%	**D:**	50-65%
F:	< 50%		

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ATTENDANCE, MAKE-UP, AND LATENESS POLICY: As this is a discussion focused course, attendance at class is **required**. If you must miss class for a valid reason, please discuss making up the missed material with your instructor as soon as possible. Late assignments will be deducted 10% of the points available for each 24 hours after the assignment was due.

Academic Dishonesty: The course has a zero tolerance policy for academic dishonesty, including plagiarism and cheating. Instances of dishonesty will be punished by a zero on the assignment and consultation with the office of the Dean of Students to determine if further action is required. If you have any questions about what constitutes plagiarism or cheating, please ask us or refer to the academic integrity code: www.njit.edu/academics/integrity.php.

SCHEDULE AND COURSE OUTLINE: Dates listed by week; class will meet twice every week. Please note that the schedule of assignments is tentative (and listed by due date), and is subject to change. Exact due dates will be updated via Canvas as needed.

WEEK / DATES		LECTURE TOPICS	NOTES
Week 1	9/3	Introduction: Course Overview and Example Presentation / Frankenstein	
Week 2	9/10	Psychics/ Cloning	HW 1
Week 3	9/17	Zombies/ Homework Movie Assignment	HW 2
Week 4	9/24	Star Trek/Genetic Engineering	HW 3
Week 5	10/1	Life Extension / Jurassic Park	HW 4; **Topic Proposal DUE next week**
Week 6	10/8	Topic Proposal Sales Pitch	
Week 7	10/15	Student Presentations: Comic Book Super Heroes	HW 5
Week 8	10/22	Student Presentations: Comic Book Super Heroes	HW 6
Week 9	10/29	Special Halloween Topic TBD	HW 7
Week 10	11/5	Student Presentations: Zombies	HW 8
Week 11	11/12	Student Presentations: Zombies	HW 9
Week 12	11/23	Topic Workshop	HW 10; **Rough Draft Paper DUE on Canvas 11/21**
Week 13	11/26	Final Presentations	
Week 14	12/3	Final Presentations	
Week 15	12/10	TBD	**FINAL PAPERS DUE 12/12**
FINAL EXAM WEEK: DECEMBER 14-20, 2019			