

Perfect Predator

IDH 2930 29332 Section

CLASS MEETINGS:

Monday, 5th period (12:50-1:40PM)
Little 117, room subject to change

COURSE WEBSITE:

E-Learning (Canvas) website: <https://elearning.ufl.edu/>

REQUIRED TEXTBOOKS:

The Perfect Predator: A Scientist's Race to Save Her Husband from a Deadly Superbug (2019). Steffanie Strathdee and Thomas Patterson.

INSTRUCTOR:

You are welcome to contact me or Dylan via the information below or through Canvas messaging. If you email me directly, please use your “.ufl” account and include your name in the body of the email. I am located in the Health Science Center Library (Communicore Building), and will be happy to meet with you upon request.

Nina Stoyan-Rosenzweig; Communicore 2-203; nstoyan@ufl.edu; 352-273-8406

TA:

Dylan Lukacs; dylanlukacs@ufl.edu; 904-629-1488

COURSE DESCRIPTION:

This course will explore a book about love, patient advocacy, and the desperate search for effective medical treatment that led to a seldom-used and controversial practice—phage therapy. In *The Perfect Predator: A Scientist's Race to Save Her Husband from a Deadly Superbug*, Steffanie Strathdee and Thomas Patterson (2019) describe a serious illness caused by a multi-drug-resistant bacteria, where treatment was successful only because the victim's wife pursued every possible avenue to save her spouse. Along the way, the memoir reads much like a thriller, and in many ways, it is a thrilling ride as Steffanie Strathdee fights for Thomas Patterson's life. As a scientist working in the field of infectious disease, she possessed the knowledge and connections with researchers, healthcare providers, and administrators who could help make decisions about the use of controversial new treatments. As such, she could accomplish feats that other patients and their families could not. However, as we will find, she uses her platform not only to advocate for her husband but also to work toward increasing research on and accessibility of therapies that differ significantly from traditional antibiotic treatment. The particular treatment she advocates for is bacteriophage-based therapy, which uses a virus to target and destroy virulent bacteria. Although this treatment has been used in the past, it is still not licensed for widespread use in the U.S. and much of Europe. Strathdee's journey required painstaking effort to find and make available a treatment that was not approved for use and, to some extent, feared in her field.

Throughout the course, students will be challenged with questions that have no clear answers regarding disease, the importance of family support, and medical intervention. Specifically: how important is family support and advocacy in making all forms of treatment and care available for loved ones? How do

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we know when it is time to try new and potentially controversial treatments? Who should have access to these new treatments? And how can they be developed in a timely and safe manner?

Background Video- <https://www.youtube.com/watch?v=CRHiYDKkFcQ>

Phage research at UF- https://research.ufl.edu/publications/explore/v08n2/feature_05.html

Note 1: Read/watch assigned materials to prepare for discussion in class that day.

Note 2: Page numbers for reading assignments are based on the February, 2019 first printing of the book. Let us know if you have any questions or concerns about the readings.

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SCHEDULE OF TOPICS AND ASSIGNMENTS*:

| <i>Date</i> | <i>Topic</i> | <i>Reading assignment/video assignment- read for class</i> | <i>Topic in greater depth/assignment due date/in-class activities/reflection prompts. Submit response to prompt before class.</i> |
|----------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| August 26 th | Intro to the class and phage therapy | Read prior to class: https://asm.org/articles/2022/august/phage-therapy-past,-present-and-future | The class will make introductions, review the syllabus, and have a brief introduction to phage therapy. |
| September 2 nd | Holiday- no class | | |
| September 9 th | Discussion of Perfect Predator | Read Perfect Predator: Part 1, Blindsided and Chapters 1-2 | How do you interpret Charles Darwin's quote: "We stopped looking for monsters under our bed when we realized they were inside us." |
| September 16 th | Discussion of Perfect Predator | Read Perfect Predator: Part 1, Chapters 3-6 | Would you prefer being in Steffanie's position—caring for a loved one with a devastating disease—or being the one suffering from the disease and burdening your loved ones? Briefly respond with 100 words or more. |
| September 23 th | Discussion of Perfect Predator | Read Perfect Predator: Part 1, Chapters 7-8 | What does Tom's commentary interspersed throughout the memoir add to the overall story? Briefly respond with 100 words or more. |
| September 30 th | Discussion of Perfect Predator | Read Perfect Predator: Part 2, Chapters 9-11 | Based on Steffanie's depictions, how do Egypt's healthcare systems compare to U.S. hospitals, such as UCSD's Thornton Hospital? What does each system excel at? Briefly respond with 100 words or more. |
| October 7 th | Discussion of Perfect Predator And WHO reading | Perfect Predator: Part 2, Chapters 12-13 https://www.who.int/hongkongchina/news/detail/16-11-2015-action-needed-now-to-prevent-a-post-antibiotic-future-who | Antibiotic resistance is a major concern, with bacteria rapidly evolving into resistant strains, rendering medications less effective. Should efforts focus on modifying existing antibiotics, or should research prioritize entirely new treatments to address the post-antibiotic era predicted by the World Health Organization? Briefly respond with 100 words or more. |
| October 14 th | Discussion of Perfect Predator | Perfect Predator: Part 3, Chapters 14-16 | Steffanie turned to phage therapy—a field with little academic interest at the time—for Tom's treatment. Provide another example where a breakthrough in scientific knowledge emerged from a largely overlooked field. Briefly respond with 100 words or more. |
| October 21 st | Discussion of Perfect Predator | Perfect Predator: Part 3, Chapters 17-19 | In Chapter 17 of The Perfect Predator, Tom's healthcare team became frustrated as their efforts failed, emphasizing the need for a "Hail Mary" alternative approach. What are the limitations of Western medicine, and can |

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| | | | you provide an example? Briefly respond with 100 words or more. |
| October 28 th | Discussion of Perfect Predator | Perfect Predator: Part 4, Chapters 20-23 | Did Steffanie's position in epidemiology grant her unique access to bacteriophage research, significantly influencing Tom's phage therapy treatment? Could someone in a non-scientific career have achieved similar success advocating for a loved one? Briefly respond with 100 words or more. |
| November 4 th | Discussion of Perfect Predator | Perfect Predator: Part 4, Chapters 24-27 | How vital is social support from family and friends for the survival of someone who is critically ill? Refer to a specific example from the book. Briefly respond with 100 words or more. |
| November 11 th | Holiday- no class- final reading, submit assignment | Perfect Predator: Part 4, Chapters 28-epilogue | Based on Tom's recovery by the end of the memoir, should phage therapy be more widely used immediately in the future, or is further research needed? Briefly respond with 100 words or more. |
| November 18 th | | | Class Presentations |
| November 25 th | Thanksgiving Holiday- no classes this week | | |
| December 2 nd | | | Class Presentations |

*Spontaneity clause: The topics discussed on a particular day may be subject to change, depending on current events, and student and faculty interests.

CLASS FORMAT:

This course is designed to be interactive, and discussion based. Class sessions will focus on discussion of the assigned chapters/pages and related materials, potentially including supplementary readings, videos, and other materials. Class time will not be limited to discussion and potentially will include other activities, while there will be required out of class special events. Various written assignments and the final project give you an opportunity to reflect further on course materials, learn about and extend what you have learned in class.

Requirements:

1. Complete reading as assigned and be prepared to discuss in class.
2. Complete brief writing assignment and upload before class (10 assignments, 4 pts/assignment).
3. Complete a project investigating some aspect of the material covered in class. This project can be creative— writing, a literary narrative, creating a film, graphic novelette, song, dance; or it can be an academic research paper.

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Grading:

Students will be graded on the following criteria:

1. Attendance (40 points)
2. Students are expected to submit assignments such as photographs, discussions before class (40 points)
3. Project (20 points)

Completion of all requirements is needed for receiving a grade in the class.

Attendance: Attendance in this course is mandatory. One absence will be allowed without a deduction of points; every absence beyond one will result in a reduction of 10 points from the final grade. One additional absence documented by a doctor's note can be made up through special write up.

Grade scale for class points awarded:

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|----|--------|
| A | 93-100 |
| A- | 90-92 |
| B+ | 87-89 |
| B | 83-86 |
| B- | 80-82 |

Criteria for academic research papers:

- Focus on a specific topic/question
- Minimum of 400 words
- 5 sources- one of which may be from existing class material, 4 must be from sources you research. Make sure these other sources are relevant and help you focus on the question you are addressing. One of these sources can be a website with a .edu, .gov, or .org ending. If a source is an ebook or digitized older book that will not count as a website. We will discuss further, and I am happy to discuss ideas.

Criteria for creative/reflective projects:

Visual projects need an accompanying reflection piece— minimum of 75 words.

Creative projects must take the same amount of time as academic projects- keep a log as to your time spent (assuming 15-20 hours for research and writing a 400-word piece) and **NEED to be accompanied by an accompanying reflection piece- minimum of 75 words.**

DIVERSITY AND INCLUSION STATEMENT: We intend this course to be helpful and engaging for students of all diverse backgrounds and perspectives and that your learning needs are served in and out of class. It is our intent to present materials and activities that are respectful of diversity: age, culture, disability, ethnicity, gender identity, nationality, race, religion, sexuality, and socioeconomic status. Your suggestions are encouraged and appreciated.

It is our goal to make all class materials and assignments accessible to everyone, using the principles of universal design for learning.

DISABILITIES: Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the instructor when students request accommodation. Specifically, if you require specific academic accommodations, please

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avail yourself of the resources of the Disability Resource Center (<https://disability.ufl.edu/>, 352-392-8565) and discuss this with us as soon as possible in the semester.

UF GRADING POLICIES: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/> .

ATTENDANCE: Requirements for class attendance, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/> . Attendance at and participation in class sessions are mandatory, with point totals described above. It is understood that valid absences may occur. If you have a valid documented excuse and notify the instructor by email in advance, you will be able to make up missed class discussions through written means.

MAKEUP HOMEWORK DUE TO ILLNESS OR FAMILY EMERGENCY: No homework will be accepted late without formal documentation of illness or family emergency. Specifically, the student will need to have the Dean of Students Office (P202 Peabody Hall) send a formal accommodation document to course faculty stating that the student was unable to complete the homework on the scheduled date due to illness or family emergency. These notes from the Dean's Office must be received by course faculty within 3 business days after the homework is due. (See below for COVID-related information).

COURSE WEBSITE: Course website: E-Learning (Canvas) website, <http://lss.at.ufl.edu> The E-Learning (Canvas) website is where the class syllabus, handouts, notes, and assignments will be posted, along with any announcements. This site is also where you will find basic course-related information. Please remember that you are responsible for all announcements made in lecture and/or posted on the course website for this class.

MATERIALS AND SUPPLIES FEES: There are no materials and supplies fees assessed for this class.

STUDENT RESPONSIBILITY: Students are responsible for understanding all course policies and for accessing all course materials on the UF E-Learning Website through the URL listed above. All assignments should be submitted through the website and in hard copy when requested. Students are also responsible for checking their UF e-mail account for course notifications and for communicating with the instructors related to any situation that may hinder his or her progress or participation in the course.

STUDENT DEMEANOR: Students are expected to arrive to class on time and to remain in class until the class has been dismissed. Students are expected to come to class prepared, having completed any required readings and performed any preparatory work that is assigned. While in class, students are expected to participate in class discussion, and to treat the other students and the instructor with respect and attention. While in class, students should not participate in texting, information seeking or viewing outside of that related to the course task at hand, talking on the phone, or other activities not related to classroom engagement and participation.

ONLINE COURSE EVALUATION PROCESS: Please provide feedback on the quality of instruction in this course by completing the online evaluation at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but you will be informed about specific times when they are open. Summary results of these assessments are available to you at any time at <https://evaluations.ufl.edu/results/>.

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UNIVERSITY HONESTY POLICY: UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code.” On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please let us know.

RESOURCES FOR ADDITIONAL HELP: Health and Wellness → U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student. → Counseling and Wellness Center: <https://counseling.ufl.edu/>, 392-1575 → UF Title IX: inform@titleix.ufl.edu, 352-273-1094 → University Police Department, 392-1111 (or 9-1-1 for emergencies), <http://www.police.ufl.edu/> Academic Resources → E-learning technical support, <https://lss.at.ufl.edu/help.shtml>, 352-392-4357 (select option 2), Learningsupport@ufl.edu → Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/> → Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conductcode/> → UF Student Success: For improving study skills to connecting with a peer tutor, peer mentor, success coach, academic advisor, and wellness resources, go to <http://studentsuccess.ufl.edu>

UNIVERSITY COVID INFORMATION: Continue to regularly visit coronavirus.UFHealth.org and coronavirus.ufl.edu for up-to-date information about COVID-19 and vaccination.