INSTRUCTOR
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Office Hrs.TR 8-11 and T 12:15-2.15, or by appointment

COURSE DESCRIPTION
In part I, we will lay the groundwork for public speaking in preparation for end-of-semester pharmaceutical industry presentations. Part I will also include an introduction to drug development, pharmacology and the FDA. In part II, students will work in groups and research a current drug on the market for either human or veterinary applications. The drug must be produced by a company that is publicly traded. The findings of this research will be used to present an evaluation of the drug, its home company, and the extended portfolio of that company. Evaluations will be presented to a mock audience of potential investors and FDA inspectors. This course will also include discussions on biomedical ethics and health disparities. It will require regular reading, written assignments, participation in a broad range of group discussions, and oral presentations.

COURSE LEARNING OBJECTIVES
After completing this course, a successful student will be able to:
• Develop the critical thinking skills for (1) reading, analyzing, and interpreting readings, artwork and literary works in class discussions, oral presentations, and assigned papers,(2) articulating and defending one’s positions in writing, in-class discussions, and oral presentations.
• Participate in class discussions while respecting the views of others.
• Relate the seminar topic to the AUCC categories in Arts/Humanities and Social/Behavioral Science by identifying and analyzing impacts of human diseases and the pharmaceutical industry on ethical, cultural, historical, economic, artistic, and literary factors.
• Relate the seminar topic to the AUCC category of historical perspectives by examining a history of drug development, U.S. FDA, historic mishaps and historic legislation.
• Relate the seminar topic to the AUCC category of global and cultural awareness by examining the role of cultural factors in perpetuating health disparities, global efforts to alleviate neglected diseases, and cultural biases related to pharmaceuticals produced in the U.S. versus developing nations.
• Have a greater appreciation of diversity, inclusion, and cultural awareness of the politics, societal factors, and human nature that defined the impacts of human disease and the pharmaceutical industry.
• Research and incorporate secondary sources in a broad range of written and oral presentation assignments.

REQUIRED TEXTS:
• The Emperor of All Maladies.

CANVAS PLATFORM
Class materials, homework assignments, discussion assignments, oral presentation, research paper, grades, and other information critical to your success in this course are located on Canvas. You can access the Canvas site for this course by logging in at http://info.canvas.colostate.edu/login.aspx.

COURSE SCHEDULE: TOPICS, READINGS, AND OTHER MATERIALS
Week 1:
Course Introduction, Student Introductions, and Introduction to Human Disease including intersections of the pharmaceutical industry with the national economy, Medicare, Medicaid, VA, and private insurance programs, legislation, societal customs and expectations, and government oversight.
Read Selection from The Jungle
Week 2:
Introduction to FDA, Health Care Legislation and Government Oversight
Discuss public speaking strategies–

Week 3:
Introduction to Historic Pioneers in Biotechnology and Therapeutics for the Clinical Management of Cancer
Discussion on the “Culture of Cancer”
Read Chapters 1-3 of the Emperor of All Maladies

Week 4:
Introduction to Pharmacology and Ethical Implications of Phase I Clinical Trials
Read Chapters 4-5 of the Emperor of All Maladies
Assignment to choose one art piece to discuss from Art for Hope, Cancer.org or Faces of Rare Disease, Online Exhibit

Week 5:
Discussion on the Cultural Impacts of Human Disease and the Evolution of Human Behavior related to the Desire and Will to Live/Application of Quality Adjusted Life Years
Discussion on the expression of the Desire and Will to Live in the Visual Arts (Art for Hope, Cancer.org and Faces of Rare Disease, Exhibit)
PICC online assessment due
Read Selections from “Mayo Patient Stories”

Week 6:
Discussion on the Ethics of Drug Pricing
Peer Review Activity
Read Selections from “Mayo Patient Stories”

Week 7:
Student Short Presentations on the Ethics of Drug Pricing
Peer review activity
Read Conclusion of the Emperor of All Maladies

Week 8:
Discussions on Biomedical Ethics in Pharmaceutical Research and Development
Orphan Drug Act and Other Legislation to Alleviate Health Disparities

Week 9:
Student Individual Presentations (Push-Pull Incentives for Alleviating Health Disparities)
Peer review activity

Week 10:
Student Individual Presentations (Push-Pull Incentives for Alleviating Health Disparities)
Peer review activity

Week 11:
Discussion: Impacts and Interpretations - Piecing it all Together

Week 12:
Discussion: Business Ethics and Cultural Cues of Business Interactions of the Pharmaceutical Industry
Impacts of International Politics on Pharmaceutical Availability and Regulation

Week 13
Discussion: Career Pathways and Professionalism

Weeks 14 and 15 Final Speech

Week 16: Final Critical Analysis and Writing Projects
ASSIGNMENTS AND EVALUATION SYSTEM

Class Participation – 5%
Attendance is mandatory. Any absences must have prior approval by the instructor; unexcused absences receive 0 points for that time period. Participation is graded according to the criteria in the Participation Rubric (appended) over seven 3-4 week intervals

Honors competencies self-assessment. Honors seminars are intended to assist student competencies in critical thinking; creativity and problem solving; interdisciplinary learning integrated with global &/or cultural viewpoints and professionalism, interpersonal skills, & emotional intelligence. The assignment is due at the end of Week 4. Students must include comments for all four categories for full credit.

*This assignment addresses the University Honors Program competencies of critical thinking and professionalism, interpersonal skills, & emotional intelligence.*

Discussion assignments - 15%
Students are divided into smaller discussion groups by Canvas. Prompts might be posted online or handed out in class for discussion. Also, your participation in peer review process and related discussion on written work will be evaluated.

*This assignment addresses the University Honors Program competencies of critical thinking; creativity and problem solving; and professionalism, interpersonal skills, & emotional intelligence.*

Oral Presentation
- Short Individual Presentations - 10%
- 7-8 minute Individual Persuasive Presentations (Includes Full Sentence Outline) – 20%
- Final Group Presentation -15%
  Students give an extemporaneous informative speech of 4-5 minutes (individual), a persuasive speech of 7-8 minutes (individual) and a group presentation of 15-20 minutes in length. Speeches must flow logically and be data-driven. A full sentence outline with complete bibliography is required for the persuasive speech.

Writing Assignments
- 5 Pharm Industry Reflections — 10%

(Please note that all pharm industry reflections are "argument papers" requiring a thesis and evidence to back it up.) Assignment details and guidelines will be handed out in advance of the due date over the course of the semester.

*This assignment addresses the University Honors Program competencies of critical thinking; creativity and problem solving; and interdisciplinary learning integrated with global and/or cultural viewpoints.*

Analytical Research Paper
Research paper – 10%
5 pages plus references including the methods of action for a class of drugs or biologics designed for a specific disease that interprets and evaluates the impacts of that disease and corresponding therapeutics on artwork, literary works, economics, societal factors, etc.

Argumentative Paper
Funding for Neglected Diseases – 15%
10 pages plus references related to the ongoing national debate on the issue of U.S. tax dollars being spent on the development of therapeutics for infectious diseases that primarily impact populations in developing nations. Why is the U.S. paying to treat diseases that rarely occur in the U.S.? The assignment is to research this issue and to draft an argumentative paper that either supports or demands an end to this practice.

GRADING

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<tr>
<th>Seminar Assignment</th>
<th>Percentage</th>
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<tr>
<td>Participation</td>
<td>5%</td>
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<tr>
<td>Discussion assignments</td>
<td>15%</td>
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<tr>
<td>Pharm Industry Reflections</td>
<td>10%</td>
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<tr>
<td>Analytical Research Paper</td>
<td>10%</td>
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Argumentative paper 15%
Oral Presentations 45%
Total 100%

Grade distribution (plus/minus grades may be used):
90-100% A
80-89% B
70-79% C
60-69% D
<60% F

Incomplete
The grade of “I” is a temporary grade awarded to indicate that for reasons beyond the student’s control or that the student could not have reasonably have anticipated, he/she could not complete the requirements for the course. When an instructor assigns an “I,” he/she shall specify in writing the requirements the student shall fulfill to complete the course. After one year, or at the end of the semester in which the student graduates (whichever comes first), an “incomplete” grade will automatically changed to an “F” grade unless the course has been completed and the grade change submitted. The student must be in good academic standing in the class in order to receive an incomplete. (CSU Faculty Council policy)

Late Assignments Policy
All assignments are due in class on the date due. Late assignments are not accepted unless there are genuine extenuating circumstances or other situations where arrangements have been made in advance.

Resources
The CSU Writing Center is an excellent resource to support the development of your writing skills throughout your college career. While students are not required to access services, you are strongly encouraged to seek consultation on your writing projects required for this course. In addition to contact information, there are useful resources available on their website: http://writing.colostate.edu/.

The Morgan Library reference librarians can direct you to books and articles for the research paper and the oral presentation. I recommend contacting Rob Sica, Social Sciences and Humanities Liaison, Morgan Library 154, rob.sica@colostate.edu, 970.491.1047.

Absence Policy
If you are ill or unable to attend class, you must contact the instructor in advance. It is your responsibility to contact a classmate to get information discussed in class. It is good practice to always have the phone number and email address of at least two students in your class. You can request this information from classmates and write it below.

Accommodations for disabilities
Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 requires Colorado State University to provide academic adjustments or accommodations for students with documented disabilities. Students seeking academic adjustment or accommodations must self-identify with the Office of Resources for Disabled Students (ORDS). You may call for an appointment at: 491-6385 or stop in at 100 General Services Building. After meeting with ORDS staff, and based on their recommendations, students are encouraged to meet with their instructors to discuss their needs, and if applicable, any lab safety concerns related to their disabilities.

Academic and Professional Honesty Policy
This course adheres to the Academic Integrity Policy of the Colorado State University General Catalog (Page 7) and the Student Conduct Code. Honors students enrolled in this course are held to high standards of integrity. Academic integrity is expected within all assignments for this course. Students will be required to make an honor pledge to complete this course. The honors pledge will be completed as a class. For more information about academic integrity, please visit: http://learning.colostate.edu/integrity/.

It is expected that students will use their own knowledge and skill for assignments unless directed to do otherwise. Incidents of cheating, plagiarism or knowingly providing false or incorrect information are considered serious and will be treated seriously. Consequences of these incidents are at the discretion of the faculty member involved and may consist of confiscation of assignments, an F grade, or reporting to the CSU Student Conduct office. It is expected that students will demonstrate concern for others, respect the confidentiality of information about, the property of and the decisions made by others.
Reporting student disclosures of interpersonal violence
CSU’s Discrimination, Harassment, Sexual Harassment, Sexual Misconduct, Domestic Violence, Dating Violence, Stalking, and Retaliation policy designates faculty and employees of the University as “Responsible Employees” (https://oeo.colostate.edu/title-ix-sexual-assault-sexual-violence-sexual-harassment/). This designation is consistent with federal law and guidance, and requires faculty to report information regarding students who may have experienced any form of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation. This includes information shared with faculty in person, electronic communications or in class assignments. As “Responsible Employees,” faculty may refer students to campus resources (see below), together with informing the Office of Support and Safety Assessment to help ensure student safety and welfare. Information regarding sexual harassment, sexual misconduct, relationship violence, stalking and retaliation is treated with the greatest degree of confidentiality possible while also ensuring student and campus safety.

- Any student who may be the victim of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation is encouraged to report to CSU through one or more of the following resources:
  - Emergency Response 911
  - Deputy Title IX Coordinator/Office of Support and Safety Assessment (970) 491-1350
  - Colorado State University Police Department (non-emergency) (970) 491-6425

Competencies for Honors Students Exercise (“PICC” feedback)
The CSU University Honors Program has identified four general competencies that should be incorporated in each Honors seminar. These skills include (1) Professionalism, interpersonal skills, and emotional intelligence; (2) Interdisciplinary learning integrated with global and/or cultural viewpoints; (3) Critical thinking; and (4) Creativity and problem solving. This is a two-stage process. First, students complete a self-evaluation of these skills at the beginning of the semester. Second, at the end of the semester instructors will provide feedback for each student, based on assignments and activities. The feedback is part of the University Honors Program; it is for advising purposes only and is confidential. It is not part of a student’s grades or academic record. A standardized rubric is used to provide feedback for growth in these areas and to measure the Honors Programs progress in helping students to develop these skills through their academic career. The feedback categories and activities/assignments used to evaluate students are listed below and noted in the assignment descriptions.

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<tr>
<th>Skill Category (PICC)</th>
<th>Relevant Course Activities &amp; Assignments</th>
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| **1. Professionalism, interpersonal skills, & emotional intelligence**: Acts ethically & positively to foster a supportive instructional or work environment. Has the emotional intelligence (ability to perceive, evaluate, & manage emotions) & interpersonal skills to work effectively with others. | • Class participation & conduct  
• Discussion question assignments  
• Formal speech |
| **2. Interdisciplinary learning integrated with global &/or cultural viewpoints**: Integrates diverse knowledge, perspectives, &/or skills into arguments &/or strategies; is aware of and can clearly incorporate global &/or cultural perspectives to an argument or issue. | • Class discussions  
• Discussion question assignments  
• Writing projects  
• Final research paper  
• Formal speech |
| **3. Critical thinking**: Student advances a position with specific theses or hypotheses & can conceptualize ideas or lines of thought. Conclusions and related outcomes acknowledge complexities of an issue (implications and consequences) and recognize differing points of view. Formulates & develops claims with sufficient support, including reasoning, evidence, & persuasive appeals, & proper attribution where necessary. Uses written and oral communication effectively in persuasive arguments. | • Class discussions  
• Discussion question assignments  
• Writing projects  
• Final research paper  
• Formal speech |
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<th>4. Creativity &amp; problem solving: Creatively applies discipline-based and/or cross-discipline-based knowledge to discover and design a variety of forms often using a problem-solving strategy</th>
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Instructions for completing the student self-evaluation using online PICC form:
1. Click this link, or go to honors.colostate.edu/picc in your web browser.
2. Log in with your eName and password.
3. Click on the blue “Create New” button at the top of the page to bring up the PICC Entry Form.
4. At the top of this new page is a link to the full PICC rubric, which you should review before completing the form.
5. The Assessment Type, Student, and Semester fields should be filled in for you.
6. Choose your instructor from the drop down menu.
7. Choose the course for which you are filling out this evaluation from the drop down menu.
8. Choose the level (B, D, P, and M, for basic, developing, proficient, and mature, respectively) for each of the four skill categories. Note that comments justifying why you chose this level are required.
9. If you have any general comments, add them to the general comments field. This field is optional.
10. Once you have checked to ensure the form is correct, click the ‘Submit’ button. All done!

If you have any questions or technical problems, email Honors Tech Support at honorstechsupport@colostate.edu
**PARTICIPATION GRADING RUBRIC**

Participation is graded on a scale from 0 (lowest) through 4 (highest), using the criteria below. The criteria focus on what you demonstrate and do not presume to guess at what you know but do not demonstrate. This is because what you offer to the class is what you and others learn from. I expect the average level of participation to satisfy the criteria for a "3".

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<th>Grade</th>
<th>Criteria</th>
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<td>Absent.</td>
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| 1     | Present, not disruptive.  
Tries to respond when called on but does not offer much.  
Demonstrates very infrequent involvement in discussion. |
| 2     | Demonstrates adequate preparation: knows basic case or reading facts, but does not show evidence of trying to interpret or analyze them.  
Offers straightforward information (e.g., straight from the case or reading), without elaboration or very infrequently (perhaps once a class).  
Does not offer to contribute to discussion, but contributes to a moderate degree when called on.  
Demonstrates sporadic involvement. |
| 3     | Demonstrates good preparation: knows case or reading facts well, has thought through implications of them.  
Offers interpretations and analysis of case material (more than just facts) to class.  
Contributes well to discussion in an ongoing way: responds to other students' points, thinks through own points, questions others in a constructive way, offers and supports suggestions that may be counter to the majority opinion.  
Demonstrates consistent ongoing involvement. |
| 4     | Demonstrates excellent preparation: has analyzed case exceptionally well, relating it to readings and other material (e.g., readings, course material, discussions, experiences, etc.).  
Offers analysis, synthesis, and evaluation of case material, e.g., puts together pieces of the discussion to develop new approaches that take the class further.  
Contributes in a very significant way to ongoing discussion: keeps analysis focused, responds very thoughtfully to other students' comments, contributes to the cooperative argument-building, suggests alternative ways of approaching material and helps class analyze which approaches are appropriate, etc.  
Demonstrates ongoing very active involvement. |