

BME 1130: Dimensions of Cancer

Location:	Africana Center 111
Time:	T/TR 10:10-11:25 am
Instructor:	Peter DelNero PhD candidate in Biomedical Engineering
Contact:	fws.bme1130@cornell.edu
Website:	blogs.cornell.edu/bme1130
Coffee Hours:	Saturday 10:30 - 12:00 pm or by appointment (location will vary)

“Medicine begins with storytelling. Patients tell stories to describe illness; doctors tell stories to understand it. Science tells its own story to explain diseases.”

--Siddhartha Mukherjee, *The Emperor of All Maladies*

Description

Cancer is an intricate disease on all scales: at the microscopic level, malignant cells evolve within a complex biological landscape. At the human level, the diagnosis accompanies a cascade of physical, emotional, and financial stresses. On population and institutional levels, cancer constitutes a morbid epidemic, and enormous resources are exchanged in the relentless quest for effective treatments. *Dimensions of Cancer* examines the variety of ways that people grapple with this disease.

The class will emphasize the centrality of clear, sensible writing to effectively contribute to the cancer discourse. In conversations about cancer, the mutual exchange of knowledge, experiences, and ideas requires skillful communication. Through the language of cancer, you will craft cogent, felicitous arguments. You will practice strategies to improve your clarity, adaptivity, and intellectual force. Altogether, this class aims to strengthen your capacity for writing, while introducing you to the manifold dialogues surrounding cancer.

Vision

- To produce something we are proud of, which has value to the external community.
- To make best use of the resources and opportunities that are available to us.
- To catalyze a significant learning experience, resulting in a more sophisticated understanding of ourselves and the world around us.
- To enkindle an engaged and reflective learning community.
- To acquire a deeper knowledge of the multiple dimensions of cancer.
- To strengthen our capacity to construct and communicate meaningful ideas with clarity, grace, and effectiveness.
- *What are your goals for this class?*

Rationale

- Experiential learning has been a valuable part of my own education, which I wish to pass forward.
- Research shows that this approach results in the most meaningful and lasting impact on students.
- This approach will be much more interesting than a traditional read/discuss/write seminar, and hopefully have greater impact beyond the classroom.
- I believe that our best work is created in authentic situations, when we have a purpose, message, and desire to reach a real audience.
- *What are your reasons for selecting this class? What are your hopes, fears, and expectations for our time together?*

Class Structure

- The FWS is a writing-intensive course; most our class will be spent thinking about, discussing, and practicing our writing skills.
- Course content will be kept up-to-date on the course website (blogs.cornell.edu/bme1130).
- *As the semester progresses, your feedback will be instrumental to ensure that course activities help you to accomplish your goals.*

Expectations

Through our experiences and conversations, we will be establishing a learning community this semester. I expect this community will be welcoming and open for all students, regardless of our differences. Your willingness to explore new perspectives with respect and thoughtfulness will facilitate your intellectual development by helping you recognize and correct your own errors, reaching a new understanding of a concept, and communicating (*listening, speaking, and writing*) effectively with diverse audiences. Cancer is very personal experience for many of us, and can often involve intense feelings. It is everyone's responsibility to maintain a congenial learning environment for every student. Working through frustrations and challenges with patience and curiosity will be an asset to you in this class and in your future. *What expectations will be important for your experience in our class?*

Code of Conduct

As always, the Cornell University Code of Academic Integrity will be enforced to ensure the submission of original work. Our classroom will be a learning community for peer collaboration, where we discuss experiences and concepts in and out of class, provide critiques on written assignments, and develop a diverse perspective of the topics. However, cooperation should never involve taking credit for work that is not entirely your own; all external materials should be attributed to the original source. *This is a learning experience - if you are unsure how to acknowledge a contribution or resource, please ask!*

Students with disabilities

I am happy to make arrangements that help all students to fully benefit from academic services. When this includes provisions for accessibility or support, students are encouraged to register with SDS at sds.cornell.edu as early as possible. Please let me know of any circumstances might require accommodations.

Grading

I firmly believe that every student is capable of being successful in this class. Grading will emphasize both process and products, including a self-evaluation of your performance. You are expected to challenge yourself to create meaningful outputs that are based on a foundation of research and creativity. To accomplish this, you will need to identify the resources and materials that will advance your project. I will make rubrics available whenever possible to explain how each grade is determined.

	<u>Frequency</u>	<u>% each</u>	<u>% of total grade</u>
Self-evaluation	Monthly	10%	30%
Class evaluation	Monthly	5%	15%
Weekly contributions	Weekly	1.3%	15%
Portfolio	6 pieces	5%	30%
Co-curricular activities	3x	3.3%	10%
Exceeding the minimum course requirements			Up to 10%

Co-curricular Activities

For BME 1130, participation during class sessions is a small element of a broader learning experience. Our course will additionally take advantage of the numerous activities occurring on campus and throughout the Ithaca community, as well as the countless resources that can be found online and at the library. You will be responsible for availing yourself of these opportunities, especially in ways that benefit your projects.

Furthermore, every student will be responsible for creating opportunities for their classmates. This might include a field trip to a local healthcare institution, a lab tour on campus, or an interview with a notable individual in our community. Each student should be involved in organizing and attending at least 3 co-curricular sessions. Ideally, these activities will contribute toward your individual and team projects. *Please obtain approval from the course instructor before contacting individuals or organizations.*

Weekly Contributions - due every Monday @ 10 pm

Your outside-of-class activities will be summarized in a "weekly contribution." Each entry should be approximately 350 words, and should include at least 3 thoughtful points about what you have read, seen, experienced, or people you have talked to. These should be clear enough that other students are able to learn vicariously from your description, and cited adequately so that other students can locate the original material. This will be an informal record of what we learn during the semester.

Projects

You will design and implement three projects of your own invention related to cancer in Tompkins County. In your proposal, you will determine the goals, rationale, and process for completing these projects. You are responsible for identifying the appropriate resources and timelines for accomplishing the aims. Projects should address a topic of personal interest, and elements of the project may be conducted by an individual or as a team. At least one aspect of your *project must* be an expository essay related to your topic of interest. *If this feels overwhelming, I can help you - please talk to me!*

Portfolio - due May 8 @ 10 pm

The Knight Institute requires every student to complete 6 essays, 3 of which undergo multiple stages of revision, for a total of 25 pages (standard 8.5x11", 1" margin, 12 pt, double-spaced text). Projects may use a format other than word document (eg website, info graphic, newsletter, wiki, blog, or alternative project), but should represent an equivalent amount of effort and substance. For our class, assignments will consist of:

	<u>Size</u>	<u>Original</u>	<u>Revision</u>	<u>Final</u>
Personal statement/biosketch	3 pages	Feb 6	Feb 27	May 8
Project proposal	5	Feb 13	Feb 27	May 8
3 products from individual or team projects	15 total	variable	variable	May 8
End-of-course reflection	3	May 1		May 8

Publications & Awards

There will be prizes for the best overall portfolio, the best individual project, and the best team project. In addition, the Knight Institute sponsors several awards for outstanding work. I will be happy to nominate you for these prizes. Visit knight.as.cornell.edu for more information. In some cases, you may choose to submit your work for publication.

Additional Resources

- [Knight Institute for Writing Across the Disciplines](#)
- [Student Services](#)
- [Academic Resources](#)
- [Campus Life](#)