

1.

What would you like to say about this course to a student who is considering taking it in the future?

- best thinking matters course
- Take the course you will love it. Also you need to learn how to read at a rapid pace
- Good class. Considers cancer from far more than pure biology
- I encourage that you take this course and engage in the discussions in order to get the full experience.
- Participate in lecture and class discussions!
- Awesome course! I highly recommend taking this course because it definitely broadened the way I perceive/approach cancer. I learned so much about the scientific, cultural, economic, political, social, and global implications. Very fair as far as time commitment goes, and the material is very interesting.
- Take it. It's still improving but its one of the better THINK classes as of now.
- TAKE THIS COURSE!! You will get the opportunity to view cancer from a variety of perspectives and will be more aware of controversial issues surrounding the disease.
- While I was assigned this Thinking Matters, I am pretty happy with it now that I'm done. Overall, the course has a very rigid structure. Two lecture a week and two discussion sections a week so get ready to be in class a lot. The lectures just go over basic stuff and are honestly quite boring. However, the discussion sections are a great forum for discussion and to really get to know the topics. There are weekly discussion guides which are just guiding questions for the readings. They are just time consuming and not very hard to complete so long as you do the necessary readings. For the final project, you are given a lot of time and work on it over the course of the quarter. It is not too difficult and you should end up doing very well so long as you put in the effort. All in all, it isn't the most exciting course but from what I've heard it's better than some other Thinking Matters courses.
- It is an interesting course, but it is very broad and brings in so many different topics that is sometimes hard to get depth in certain issues.
- It is very useful, informative, and perspective-changing in terms of thinking about cancer. It is a definite must. Just make sure you are able to organize your workload and work well with others.
- it's not too much work, the weekly discussion guides are time consuming
- The material is very interesting.
- An interesting course with wonderful lectures and a great deal of coursework.
- Take it. It is the best Thinking Matters!
- Do the readings- they are extremely informative and interesting
- This will really give you a new perspective on cancer and teach you to be skeptical of media representations.
- This course does a good job of looking at cancer from a variety of different angles. Be present during section because that's where the really interesting discussions happen
- I would say this course is a really great way to test your critical thinking skills and gain a basic understanding of different issues surrounding cancer. The texts used are interesting and the class is well taught.
- This course is more about thinking analytically than the science of cancer itself.
- Amazing course, definitely recommend. Much of the class focus is on medical ethics/societal implications of cancer. The more technical/scientific lectures just weren't as interesting or as compellingly taught. Overall great class, though, particularly if you're interested in medicine.
- I would recommend this course, especially if you enjoy discussing medicine from a philosophical perspective. The readings are quite interesting as well. At the end, you should have a holistic understanding of different ways of viewing cancer, though you'll get more out of it if you have some background in biology. I thought that the lectures were interesting, and the many guest lecturers offered a number of different perspectives, which added to the course. The sections were perhaps the most valuable part--we got the opportunity to explore the material deeply, and we got lots of feedback on our progress. Dr. Furrow was a great section leader. In terms of schedule planning, this course required a fair amount of work for 4 units. Each week, we were required to write a ~2-page (single spaced) discussion guide based on ~150 pages of reading, in addition to about 2 hours of lecture and 2 hours of section. The final essay should also not be underestimated, since it involves substantial research. Although all assignments were graded relatively harshly, a number of grades in the class (such as participation) were not allocated harshly, so don't worry too much if your grade appears to be in the B-range, especially early on. Professor Lipsick and Dr. Furrow were both frequently available for office hours.
- Have fun with the class.
- This class is a wonderful way to broaden the spectrum of your view on the state of cancer as well as general medicine in the modern world.
- Go into the class with an open mind. There will definitely be a lot of new, shocking things that you will in this class.
- don't sleep in class
- Cancer is a good problem to study.
- Do most of the readings, and discussion will be the most important part of the class.

- As far as mandatory classes, this one was pretty great. Lectures are interesting enough, sometimes with guests; discussions were usually exciting and thoughtful; workload was not bad at all. In terms of workload, we'd have weekly reading assignments, usually around 125 pages from more narrative-style texts and a few articles. We also had weekly reading guides, involving low-pressure responses to several questions of about 600-800 words total. Aside from that, no tests, just a final paper of around 1200-1500 words and group infographic/poster presentation. Highly recommend!
- The course does more than teach you about the science behind cancer. It teaches you about cancer from a lot of different perspectives. It's very interesting.
- Take advantage of the readings and the additional readings posted. Please do not be afraid to ask questions during lecture or to answer. Dr. Lipsick is very engaging and friendly, and is always happy to answer any questions you may have.
- Make sure to turn in assignments on time
- The more you participate, the more you get out of it.
- This class touches on a little bit of everything; it is up to you to figure out something to really focus on (for your paper/project) after being exposed to so many different aspects of cancer.
- Stay on top of readings
- great thinking matters but lectures are boring
- Probably best to avoid
- It is definitely one of the more interesting THINK classes.
- It is very good if you want to get a much better picture of how cancer interacts with society.
- Great class!
- Take advantage of office hours and talking to the guest lecturers.
- Enjoy it because everything about it is incredibly fascinating
- This course was very unfocused and it really didn't make us think as much as I expected. The lectures and discussions were totally unrelated.
- This course was not very difficult grade-wise, but it was still very interesting and the discussions were even fun. I would recommend it.
- you will learn a lot about cancer. not as focused on biological mechanisms, but it combines societal, ethical, and biological aspects of the disease
- Pay attention to lectures, you won't be tested on it but it's an amazing opportunity to learn
- This was my favorite class! 10/10 would highly recommend!
- take it if you are interested in the subject matter!
- I'd recommend it, if they are moderately interested in cancer.
- It's fun! Take it, especially if you like biology and are curious about how to integrate it with other topics
- Make sure you stay on top of the readings and participate in the discussions.
- I definitely recommend it. The class forces you to learn about cancer in a completely new way that I think is very interesting.
- You'll be amazed at how much you learn. Cancer is not just a biological problem; it touches various fields, and it can be interesting to anyone in any field.
- Take this course if you are interested in medicine and biology.
- It helps improve your critical thinking and analysis skills
- I would recommend this class, particularly as a thinking matters course, because I thought cancer was a great disease and issue to analyze and develop critical thinking skills. There were so many ways to approach the issue of cancer, giving the course lots of breadth and interesting topics.
- The readings aren't necessarily relevant to lecture always.
- The readings are extremely interesting along with the discussion sections. The lectures are on the dull side but still very informative. It's very interesting to see how cancer is affected by many subjects (politics, economics, ethics...) Your view of cancer will significantly change!
- it is a lot more work than most other think classes but you learn a lot
- Take it! you learn a ton about the challenges with cancer and it will alter your perspective in a positive way
- Highly recommend! Very organized lectures, good flow from topic to topic, and section leaders are great people. Course material was highly interesting as well.
- Don't be afraid to ask a question directly to Dr. Lipsick
- It was mostly interesting, but it was more work than I was expecting for a thinking matters class.
- Do the readings, take part in discussions, and most of all THINK.
- Spend time on the discussion guides. Also, meet up with your group when planning the infographic.
- Practice is key
- I think what you get out of this class is largely determined by what you put in.
- This will probably be one of my favourite classes here at Stanford.
- you made the Thinking Matters choice possible. Have fun!
- You have to be willing to put in a lot of effort in terms of reading, writing, and researching. Therefore, to enjoy the class, you have to be really genuinely interested.
- This class isn't about finding the cure for cancer or learning about the nitty-gritty biology of it. You will learn about the disease as a whole and will become more critical of scientific and social information. It is an excellent class, and I highly recommend it for anyone, whether you are inclined towards science/medicine or not.

- This class gives a lot of insight to cancer, from scientific aspects about the disease itself to social and political aspects.
- It is a very interesting course, although it is somewhat heavy on reading. The reading is interesting though, so it should not be too much of a problem.
- It is valuable if you are interested in the subject. If not, there is little incentive to pay attention in lecture.
- It is a valuable course if you are interested in learning about the problems hidden in cancer from a variety of perspectives.
- If you are interested in learning more about the implications and details of cancer from a range of different perspectives, then I highly recommend taking this course. The flow of course material is conducive towards an assessment of the Cancer Problem through building off of each subsequent aspect of cancer as the class progresses. Personally, I enjoyed learning more about global cancer disparities and the molecular biology of cancer. The critical thinking skills and knowledge I've gained are bound to be invaluable in my future courses at Stanford and beyond.
- Definitely take it.

2.

What skills or knowledge did you learn or improve?

- understanding the complexity of cancer
- everything about cancer. How to discuss and debate with smart people
- Breadth thinking
- I gained knowledge around all the depths of cancer including racial disparities, causes, treatments and understanding how it moves through the body.
- I learned to be more critical of data and learned more about society's view of cancer.
- Thinking about cancer through multiple lenses (scientifically, economically, politically, socially, etc.), being more skeptical and cautious about cancer-related things
- Learned about the intricacies of the medical community
- Critical thinking skills; economic, ethical and society aspects of cancer; improvement in writing strong argumentative essays
- How to make sense of scientific data and how to be appropriately skeptical.
- I learned a lot about the complexities of cancer attacked from many, different fields.
- The ability to think critically about cancer and the issues surrounding it. Knowledge I've gained includes facts, statistics, and concepts dealing with economics, ethics, and politics having to do with cancer.
- The ability to critically analyze text and various forms of information.
- I gained a deeper understanding of all the components that go into cancer treatment pre- and post-diagnosis.
- I knew nothing about the economic and political battle concerning the war on cancer and now I do.
- the ability to practice scientific skepticism
- I learned a lot about the different treatments for cancer as well as disparities in the care that different people receive.
- learned a lot about inequities in health care, health care economics, and cancer research
- I learned a lot about how to think critically about science and statistics. I am now better at analyzing data given to me and understand that the meaning of statistics should be carefully considered before jumping to conclusions. I also have a much better understanding of cancer and its impact on society.
- Thinking analytically
- I learned a lot of factual information about cancer as a disease. I also learned a ton of fascinating things about scientific and medical ethics.
- Knowledge: I learned a lot about cancer biology, and the current state of cancer research. I also learned about some of the historical beliefs about cancer, as well as the role of medical ethics and societal values in cancer research.
- Skills: I learned to write scientific analyses, and how to write a scientific research paper. I also learned about moderating discussions.
- My ability to critically think about concepts.
- Analytical ability. Critical thinking. Non-biased Analysis.
- how/why cancer develops, treatments, disparities, ethical issues, clarified misconceptions, more critical thinking of info presented
- I definitely learned about many of the various aspects of cancer. For instance, I learned a lot about the ethics, the economics, and the disparities of cancer. I wouldn't normally focus on these aspects, but learning about these parts of cancer really opened my eyes.
- all aspects of cancer
- I learned how to evaluate a problem and solution and think more critically about subjects of debate, especially when it comes to cancer. I learned to not just accept things at face value and that stats can be very misleading.
- Learned to think more critically about science in the media and research as a whole, learned about all the complex facets of the cancer problem.
- Examining scientific issues from different, non-scientific perspectives.
- How to understand the data in a more critical way; i.e. mortality rates v. survival rates (lead time bias).
- I learned to critically assess experimental procedures

- how to approach cancer from several angles
- Critical thinking
- Writing skills
- The technicalities of cancer
- developing an argument and finding relevant evidence in essays
- I learned some interesting facts about cancer, but overall was pretty bored by the material covered. It felt like a high school class because of its overly structured setup
- Learned all about the social implications of cancer.
- Analytical thinking and reading, being able to communicate my thoughts better. I also learned a lot about the biological and sociological aspects of cancer.
- I learned about all aspects of cancer and my ability to think critically about problems in an attempt to make a solution
- Social and economic aspects of medicine, cancer especially.
- how to think critically about statistics and data that are presented to us.
- Critical thinking, analyzing all aspects of a problem
- Basically the entire comprehensive history of cancer
- General knowledge related to disease and cancer.
- I learned about the multifaceted nature of the cancer problem.
- Thinking about cancer from a more nuanced perspective. Considering multidisciplinary factors in a seemingly biological problem
- I learned how to look at the mortality rates of cancers to evaluate the effectiveness of treatment. I also learned how to distinguish between correlation and causation links.
- I learned about cancer in a completely different way than I had previously in my high school biology class. I can now look at cancer in a completely new light.
- I learned so much about the economics of cancer
- I improved my ability to analyze cancer statistics.
- Critical thinking
- Writing skills, critical thinking skills, and I learned how to hone my skepticism about big data and cancer treatments/screening processes.
- I learned how to analyze information through a scientific and ethical lens.
- I learned how to view data and articles given to me (don't fully accept everything). I learned that cancer is very complex and that everything (politics, ethics, science) are all intertwined. My critical thinking skills and writing improved significantly
- that there are a lot of factors that influence cancer
- Critical thinking and analytical skills
- More about cancer as a whole (larger issue than just individual cases)
Also learned how to communicate my ideas effectively in discussions
- The ability to think critically about the implications of cancer policy and research
- I feel like I improved my research and writing through the final paper. I also feel that I was better able to analyze a topic from various angles rather than my own, potentially biased opinion.
- Critical thinking, and a plethora of information about cancer that I didn't know before
- I learned about various controversial aspects surrounding cancer and our society's treatment of it. The one thing that I was surprised at the most was the fact that screenings can sometimes do more harm than good.
- Looking at things in different perspectives
- I thought the day we went into the lab to see cancerous organs was super informative and interesting.
- Everything about cancer and things most people don't even think are related to cancer
- knowledge of the complexity of cancer
- Learned a lot about melanoma, the worst type of skin cancer. I also learned about the history of cancer and HeLa cells and various ways scientists are improving research and treatment methods.
- I learned that "the cancer problem" is really a collection of many different problems: cost of treatment, ownership of intellectual and biological property, screening, and improving treatment. Finding the cure for cancer will not solve all the problems associated with the disease. I learned to be more critical in my analysis of cancer campaigns.
- I learned a lot about the history and development of knowledge in relation to cancer.
- I learned a lot about cancer and the different ways it can affect people.
- Critical thinking, writing, and reading research publications.
- I learned a great deal about the problems surrounding cancer treatment and cancer prevention.
- I learned to think critically about cancer from a myriad of perspectives, and in turn how we can use the interconnection of these different vantage points as a collective society towards remedying the Cancer Problem.
- I learned a lot about every aspect of cancer

3.

How many hours per week on average did you spend on this course (including class meetings)?

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4.

Would you like to provide any other comments about this course?

- No
- The lectures were not the most engaging. I thought that the beginning was interesting when we talked more generally about the social implications of cancer but when we started to get into the biology of cancer, things got very confusing. I felt that I did not have enough background knowledge to keep up with the biology and then lectures got really confusing because everything kept building on the last topic. I think that you really should spend more time with some basic biology in the beginning of the course (kinda like what we did in section one week) to make sure that everyone is on the same page before moving on. Also, some more variety in the slides would be fun (videos, pictures, etc).
- I enjoyed Dr. Lipsick's lectures and personalilty, and overall, I am glad I took this course. It was truly educational.
- I really enjoyed the lectures and thought they were entertaining while full of information. Thanks very much.
- N/A
- Thank you so much, Dr. Lipsick! It has been wonderful to be your student!
- At first I was dreading taking a Thinking Matters class, but I loved it!
- I just want to say that I really enjoyed this course. It definitely strengthened my desire to pursue medicine in the future and I'm really glad I got the chance to take it.
- no
- Interesting, but lectures could get a little dry. Loved the idea of guest lecturers.
- No.
- So many topics were covered! I wish it was a longer course. One thing I want to point out is the structure of the course: it didn't smoothly go from science to social aspect, instead it went back and forth. That could be disadvantageous to students.
- n/a
- No
- GUEST LECTURERS WERE GREAT!
- This course was very fun and informative! While the workload was a lot, I gained a lot from this class.
- I loved this course!
- none
- great course!
- nope.
- n/a
- It was a fun course.
- I would recommend having more guidelines online in a centralized location rather than having handouts during class. It's much easier for students to organize their academics when the material for the final project is available completely online and accessible during any point in the course.
- I don't know if the Emperor of All Maladies was the best book choice for the course.
- Very interesting subject matter!
- Really great! Good choice

- None
- No
- None
- The topics just seemed kind of segmented to me in a way that didn't give me a coherent understanding of cancer as one disease.
- no
- It is a very information packed class but very organized and interesting. A LOT of work though!
- Prof. Lipsick is a really wonderful lecturer, and I appreciate that he invited the students to the faculty club for lunch and to his lab.
- The attendance requirement was daunting, since I struggled to attend class because of medical problems (concussion) towards the end of the quarter. However, the TA was very kind in helping out and accounting for my unexpected turn of events, and for that I am very thankful.
- Favorite course I took this quarter. Gives an excellent and well rounded multidisciplinary view of 'the cancer problem'.
- I greatly enjoyed both learning more and thinking critically about cancer from such a fascinating diversity of vantage points. As medicine is something I am interested in pursuing, I was always captivated during each class meeting. Professor Lipsick is an excellent lecturer. I am very appreciative of the experience I have had in this course.
- Joe is a great professor

5. Open-Ended Questions

What suggestions do you have to improve this course?

- Said these in class.
- Some lectures felt like a reiteration of the reading, more new information would make this time feel more useful.
- It would be nice to get to know some more of the biology of cancer. I enjoyed learning about the various aspects of cancer, but it would be really nice if we could have spent more time learning more about cancer biology.
- more guest lecturers
- Maybe give an overall biology of cancer review before beginning, It was spread throughout and I never got a full understanding of the biology of cancer.
- I would've liked a bit more overlap between lectures and discussions--discussions were always lively but were largely based on readings. Lectures, though interesting, began to feel a bit disconnected from discussions, which felt like the main essence of the class.
- Include more about the role of politics in the cancer problem.
- To tie in the readings (especially emperor) and any questions in the readings to the lecture and during the discussion sessions.

To encourage more participation when questions are asked during lecture, have the TAs sit throughout the lecture hall and ask students what they think. That way, those that are not as vocal as other people can voice their opinions and ask their questions.
- I did not like either of the main texts. I would rather use a text book or just articles
- I think a lot of students get questions during lecture, but are intimidate to ask the questions. It might be helpful to just call out students to get them involved.
- Draw stronger connections between section and lecture.
- None
- lectures should expand upon readings.
- Very dull
- Having a little more time to focus on some of the biology of cancer instead of a lot of focus on social issues. However, I enjoyed learning about the social issues.
- Sometimes the readings were very long--they were valuable but sometimes hard to always complete.
- None
- Connect the lectures with the discussions.
- Some of the lectures were a bit dry. The guest speakers were great, though.
- Make the sections overlap with what we learn more
- I understand that this is a basic course, but I feel it should really get into the nitty gritty of cancer bio, economics, etc. I would have felt more satisfied because I would have really learned more. I feel like we just skimmed these things and I have a very surface level understanding of them.
- Tie lectures in with section more
- The discussions could be more relevant to what was talked about in lecture.
- I think sections should take more trips to Dr. Lipsick's lab in the school of medicine building because that was one of my favorite sections.
- less reading
- More time in the lab looking at different samples
- Connecting lecture more to the discussion sections would have increased students' motivation to contribute and engage during lecture. Almost all of the skills/knowledge I gleaned from this course came from the discussion sections.
- Maybe make the sections and lectures more connected (topic-wise).

- Make the lectures more engaging
- maybe decrease the lengths of the weekly assignments because they seemed like significantly more work than any other think classes assignments
- Make the lectures more important by testing students on the material
- A few more lectures or more detail about how cancer is caused and spread throughout the body (more scientific)
- Perhaps we should have field trips to different cancer research/policy institutions
- I feel that some lectures could have been made more interesting/attention-grabbing. I also felt there was a pretty big disconnect between lectures and discussions, but that isn't necessarily a bad thing.
- Tying section discussions, the books material, and lecture topics together at the same time. They were often disconnected and not cohesive
- I know it's not agreed-upon by the students, but I'd be interested in seeing more science incorporated, especially for topics like viruses and carcinogens.
- None
- Make the topics/lectures more coherent so it's not a bunch of random cancer topics.
- Nothing: It's an awesome class
- none! best course i've ever taken
- More interesting lectures/lecturers and less time spent on discussion guides.
- I can't think of many suggestions; I had a great experience in the class and felt that the content and organization of the class was excellent.
- I think the course was well-taught. The discussion guides could have been more succinct and less tedious.
- None
- Implement a way to make sure students are paying attention to lectures- they're fascinating, but many students tune them out because they know they will never be tested on them.
- Vary the content in lectures and section a little more because it seemed like each lecture or section went over the same material for too long of a time.
- At times, the explanation of a difficult idea or concept felt a bit rushed during the lecture period. Perhaps narrowing the focus of each lecture would allow for a better understanding instead of a broader understanding, under the principle of quality vs. quantity.
- have more time in lab