

Detailed Evaluation Responses for CHEM-527 for Fall 2013 Instructor - Harold Bancroft White, III

Detailed Responses Total =
 Responded
 / Enrolled

QID 3425 - The instructor demonstrated thorough knowledge of the subject matter.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	94/109
Scale value	1	2	3	4	5	Mean:	4.31
Total	0	5	5	40	44	Std. Dev:	0.8
Percent	0%	5.30%	5.30%	42.60%	46.80%	Median:	4
						Mode:	5

QID 3426 - The instructor presented the materials in an interesting way.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	94/109
Scale value	1	2	3	4	5	Mean:	2.98
Total	14	21	23	25	11	Std. Dev:	1.25
Percent	14.90%	22.30%	24.50%	26.60%	11.70%	Median:	3
						Mode:	4

QID 3427 - The instructor encouraged class participation.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	93/109
Scale value	1	2	3	4	5	Mean:	3.7
Total	2	11	17	46	17	Std. Dev:	0.98
Percent	2.20%	11.80%	18.30%	49.50%	18.30%	Median:	4
						Mode:	4

QID 3430 - I would recommend this instructor because of his/her teaching to others considering taking this course.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	94/109
Scale value	1	2	3	4	5	Mean:	2.22
Total	32	30	17	9	6	Std. Dev:	1.2
Percent	34%	31.90%	18.10%	9.60%	6.40%	Median:	2
						Mode:	1

QID 3419 - The course emphasized understanding of the material rather than memorization.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	92/109
Scale value	1	2	3	4	5	Mean:	3.54
Total	7	12	18	34	21	Std. Dev:	1.2
Percent	7.60%	13%	19.60%	37%	22.80%	Median:	4
						Mode:	4

QID 4638 - I frequently talked about topics from this course with friends and other people not taking this course.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	92/109
Scale value	1	2	3	4	5	Mean:	3.32
Total	4	25	16	32	15	Std. Dev:	1.17
Percent	4.30%	27.20%	17.40%	34.80%	16.30%	Median:	4
						Mode:	4

QID 4636 - I found the work load in this class to be excessive.

Scale text	Strongly Agree	Agree	No opinion/Undecided	Disagree	Strongly disagree	Total
Scale value	A	B	C	D	E	
Total	28	18	25	18	3	92 / 109
Percent	30.40%	19.60%	27.20%	19.60%	3.30%	

QID 15575 - The in-class demonstration, "What Color is Egg White?", did a good job of integrating biochemistry with things that I find interesting.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	92/109
Scale value	1	2	3	4	5	Mean:	3.59
Total	7	16	9	36	24	Std. Dev:	1.26
Percent	7.60%	17.40%	9.80%	39.10%	26.10%	Median:	4
						Mode:	4

QID 15576 - The in-class group activity dealing with carbohydrate structure and chemistry was more useful than a lecture on the same material.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	92/109
Scale value	1	2	3	4	5	Mean:	3.35
Total	9	17	16	33	17	Std. Dev:	1.25
Percent	9.80%	18.50%	17.40%	35.90%	18.50%	Median:	4
						Mode:	4

QID 15579 - Quizzes and examinations were graded and returned promptly.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	91/109
Scale value	1	2	3	4	5	Mean:	4.63
Total	0	0	3	28	60	Std. Dev:	0.55
Percent	0%	0%	3.30%	30.80%	65.90%	Median:	5
						Mode:	5

QID 15578 - Weekly quizzes were helpful in keeping up with the course material.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total:	92/109
Scale value	1	2	3	4	5	Mean:	3.74
Total	6	13	8	37	28	Std. Dev:	1.22
Percent	6.50%	14.10%	8.70%	40.20%	30.40%	Median:	4
						Mode:	4

**Final Course Evaluation Essay Responses for
CHEM 527, Introductory Biochemistry - Fall 2013
Instructor - Harold Bancroft White, III**

Question ID: 3435

Comment on the instructor.

Responses (70 of 109)

- The instructor taught this class as if a majority of the class knew everything about biochemistry. His PBL teaching method did not work with 200 undergraduate students. He needs to find another way. His examples were fun and interesting but had nothing to do with what we were learning. Though his teaching method may help some people the majority of the class including myself did not like it.
- Dr. White goes over the most basic material in lecture, but then tests on the big picture and says that he emphasizes understanding over memorization. It would be more helpful for him to go over complex material in class, rather than the material that I can get easily from my textbook.
- I never felt like I was learning the material I should know. Dr.
- Made things more confusing than clear. He did not provide practice exams and his TA were not very helpful either. They did not focus on the material that would be on the exam.
- Dr. White is extremely knowledgeable about the subject matter, and is a great lecturer. However, sometimes he goes into concepts that are beyond our understanding during lecture. It would help to assume that the class knows absolutely nothing about biochem (because most of us don't, or don't remember).
- He is a very nice guy but all I felt he did was teach out of the textbook directly.
- Going to class was completely pointless. There was no benefit and I would've been better off reading the textbook during that time instead. I approached him about an open ended exam question he graded as incorrect even though it was word for word from the textbook, and he said he just didn't like it. NOT HELPFUL
- The instructor was not receptive to the feedback of his students.
- Lectures were taken directly from the book, material was simply stated without the professor expounding on the material, and organization was severely lacking.
- While he is a nice guy, he should have taught the class in the way he is most effective, problem-based teaching. It does not make sense why he chose to teach the class as a lecture.
- He taught okay, but insisted on passing everything to the TA to handle affairs.
- Dr. White obviously is very passionate about Chemistry and it's clear to me that he loves teaching. If I could comment on what he could change, I would do the following: His lectures are well organized and the material is presented decently, however, much of lecture time I feel is spent on drawing out long complex pathways that can easily be placed onto a PowerPoint or under a document camera. I feel that if he had more time to clearly convey his material, I would have gotten more out of lecture. Along the same lines, I wish that this course had Course Capture and was recorded using either a document camera or PowerPoint so that I could have gone back and listened to lectures again.
- Lectures were very disorganized and I felt as though I had to teach myself from the book. Going off of this, literally every aspect of the book had to be analyzed and read to have any sort of chance on the tests. Test questions were vague at times and (this may sound ridiculous) but way too specific for the amount of material that was expected to be learned. There were only 2 tests throughout the semester that spanned hundreds of pages in the textbook, and included material that was at times not even touched upon in very much (if any) detail during the lecture. I spent the most time out of any class studying for the tests in this course and still bombed the tests.
- Means well but awful during teaching execution. Material is not presented in a way that is impressionable for the test or for lifelong knowledge.
- In one sentence, the instructor had the best intentions but was preaching to the wrong choir.
- Expected too much from us in an introductory biochemistry course. Did not do any example problems. Covered the bare minimum in class and expected us to know all of the details in the textbook. Talked about history in class

which wasted time. Tests were very difficult- practice tests would have helped. Did not post answers for "challenge problems". Wish he would have assigned problems from the book to help us prepare for the exam.

- The instructor was very knowledgeable and interesting, but it was evident that he preferred a different teaching style. He was disorganized and unclear on what he expected of us for the exams. This was because he did not teach this course for awhile before us. Material from a previous year or study material would have been helpful. The professor tried to present material in activities, but he never explained the purpose or the worth of the information learned after completing the assignment.
- Dr. White is clearly very dedicated to teaching. It is obvious he wants us to understand concepts...it's not just a job, but a passion. He is very approachable by email and in his office, where he is easy to find (unlike some professors who are never in). He welcomes feedback from the students, and we have three scheduled recitations with an awesome TA, Drew. The challenge questions are very difficult, and the exams are very challenging. They force you to think and apply what you have learned....sometimes you learn what you didn't know that you didn't know....
- Hard as heck.
- Very knowledgeable about the subject matter. However, he relied too much on the text and "prior knowledge" of students to teach the material, as opposed to actually lecturing about it during class. Seeing as many students may have a variety of backgrounds in chemistry and biology, this is not a fair or responsible way for him to go about teaching the course. On top of the challenging material; having to study, outline, and master SEVEN chapters worth of material per test is ridiculous - especially for most students like me who have 13 other credit hours worth of work to worry about. It is down right frustrating and nearly impossible. On top of that, the majority of students in the class were likely underclassmen, and we were treated like graduate students who had biochemistry as their major. To have Dr. White explain that he doesn't like to lecture is extremely frustrating, seeing that every day of class I sit in a LECTURE hall with 70 or so other students, where a discussion-based teaching style DOES NOT WORK. I would much rather Dr. White actually lecture about the material, writing all of his input and thoughts down on the chalkboards, along with diagrams and pathways, going along section by section from the textbook but in his own words, so that us students can transcribe that knowledge into our notebooks for studying. This is how most underclassmen like me better understand, absorb, and eventually master and enjoy the material that science teachers present in class.
- Dr. White has really good intentions and want his students to know the material well enough to apply it. However, he often in lecture only presents the basics of concepts with out the details that are sometimes necessary for application. Which we practiced more of the application stuff in class to reenforce this learning. It requires A LOT of time to meets his wishes of reading and fully understanding the chapters AND doing all the questions. Hard to do with our course and such but I feel like thats what you need to do well in the course. Often made errors in lecture that students corrected him on. Worried given the wrong info sometimes.
- He did not prepare us for the tests at all. The quizzes were only possible because they were from the textbook, but he taught one thing, the textbook was another and then the test was on neither of them.
- Dr. White makes quizzes that are often times very specific and this makes it difficult to study the chapters because more than likely his quizzes will only be on several sentences that were in the entire two chapters we studied. Furthermore, there are not enough big- picture questions on the quizzes, they are more focused on minor detail questions but he does make up for this, with more larger concept questions on the tests.
- Has an obvious love and mastery of the material, which is greatly appreciated! Teaching style generally leaves some question as to what the main ideas of the lecture were intended to be.
- unclear writing on the board. not very helpful with questions. did not prepare us well for exams at all.
- Dr. White really knows Biochemistry and also how to break down complex ideas. He is a really good teacher and the topics that he discusses in lecture are fluidly delivered.
- This was an interesting class. The only disappointing part about this class is feeling I understand the material, but doing bad on the exams.
- brilliant Man. Though He Asked Our Opinion On Things To Work On During The Semester, He Was Unwilling To Change Anything Suggested And Just Made Excuses Instead Of Addressing Any Problems
- Nice guy, good intentions
- Terrible instructor. Taught relatively simple concepts in class and then asked ridiculously difficult questions on exams. Would not listen to any feedback from the class. Would not throw out any test questions even if they were poor and misworded. Exams did not accurately reflect anything taught in class.
- Dr. White most definitely cares about his students and wants them to do well. However, I do believe that most of the class did not have a good handle on the material. We were never sure about what we were going to be tested on and it was difficult to grasp concepts sometimes. I believe it was mostly due to the fact that he is used to teaching small classes.
- When offered feedback on his course during class, he didn't seem to listen and instead used it as an opportunity to justify why he chose his own method of teaching. For example, when specifically asked to provide practice exams, he flat out refused. Even providing some old exams, even if the material was not the same, would have been helpful in determining how we should study, Therefore, instead of adjusting the course to help students, he just kept plugging away. It would be helpful if the quiz answer keys were online, instead of posted on a bulletin board. In addition, the challenge problems are not helpful unless there are answers provided. Also, side stories are sometimes interesting, but mostly not.
- Lectures seemed to be much more basic than what we were tested on or what was in the book. Sometimes hard to follow and see the connection with the textbook. This professor would do much better in small discussion based

classes. 100 students is way too many. Also, just because one person in the crowd can answer his question doesn't mean that everyone else knows it. He would often skip over the explanation if one person shouted out the answer

- He brings a good attitude to the class and shows interest in the students needs.
- Dr. White is a great professor. The only problem is that while he mostly tests on his lectures, the material in the book that wasn't covered in lecture is also fair game. It's very stressful because there is just so much information in the textbook.
- needs to make lecture more interesting, use course capture, and let students know about the curve
- Very knowledgeable, able to help outside of class. Harsh on exams.
- Notes need to be more relevant to what is given on the test.
- Dr. White was helpful outside of class, but I feel that he taught the class and prepared exams that were past our level of knowledge.
- Not a bad instructor.
- Professor White didn't quite organize this course correctly, as he required a massive amount of information to be understood and remembered each week. This class is full of busy students who put in many hours of outside studying and do all of the reading which he requires, yet we cannot master the subject of biochemistry (and think quite as analytically and whole-picture about the subject) as he expects us to be able to do for this INTRO class. Personally I have read and taken detailed notes on every chapter of the textbook, and every single page of each chapter, yet simply cannot remember all of the tiny details which he expects us to recall, especially when huge parts of each chapter are also completely ignored on quizzes and exams! Professor White either needs to cover more material in lecture which will be emphasized on the exams, or make it clear to students which sections in particular are more important for their knowledge of biochemistry. With the amount of studying necessary for other classes as well, it is a little unreasonable that the professor expects us to read the entire book and know it all. I took this class purely as an elective because I'm very interested in it, but the depth of analytical understanding is a bit extreme in an intro to biochemistry class.
- Vague and random lectures with exams on scattered information that was at times far more detailed than lecture.
- The guy knows what he's teaching. The problem was that he wasn't teaching it well to the students. Most of the class was composed of biomedical engineers or other medical majors. He taught on a level that would be expected of Chem majors. The difficulty of this class made me not enjoy it. Instead of being eager to learn something like that professor intended, I was stressed out with trying to learn everything since it was impossible to try and predict what and exam would cover. The professor is great and you can tell he cares about the subject and the students. He just didn't have a good semester and didn't have a good bunch of students. I'm sure if he had a few more semesters under his belt teaching biochem to non majors, he would have a better understanding on how to approach the material better. I have much respect for the professor and I wish I was able to do better because I know he deserves it. I just wish the material was presented in a way that was easier. That would have made me enjoy biochem more.
- Professor White is very knowledgeable about his subject but in class when we just go over the simple aspects of the topics it is not helpful for when the tests come. I think he should do some examples in class that could be similar to test questions so we can get the type of thinking he wants on the test started earlier than just on the test day because I always run out of time on the tests.
- his teaching method was really vague and unclear. exams were not on what was focused in class.
- Dr. White did a good job with this class and I wouldn't change much about his methods.
- Teaches this course like a graduate level course. No test prep, directs you to TA too often.
- When asked for criticism, refused to take it. Very stubborn. I asked for a problem set to facilitate learning and keep me focused, but he said we should look at them all. There were at least 100 at the end of each chapter. No student can physically have time for that. I'm sure he's a great teacher for smaller classes that he has taught more frequently than 11 years ago, but not this class. He also gave us metabolic pathways to follow, but that wasn't until after we have already reviewed them in class. And he used his metabolism exam questions for our quizzes. Doesn't seem fair to me at all.
- I felt that Dr. White was not an effective professor for this course. This course was a required introductory course for my major, and I don't feel that I learned anything except for things that I taught myself from the textbook outside of class. I was generally disappointed in the quality of the course as a whole, and I also didn't feel that the assessments we were given were necessarily fair considering the information we got in class, which was essentially Dr. White drawing a lot of detailed structures on the board that we could've just found in the textbook, and then assessed us on our ability to apply the information in a completely new way. I feel that this was unfair because we were never taught any applications of the material, or even how to approach an application problem. I also felt that there was too much of a focus on the history of biochemistry, while we should have been learning actual biochemistry that will be helpful to us in our future courses and careers.
- I love Dr. White's lecture, and I think they are always interesting and engaging; however, I feel as though the exams and quizzes are a bit unfair. Dr. White frequently mentions Bloom's Taxonomy and says that he wants us to answer questions beyond basic comprehension, but the problem is that we are all STILL STRUGGLING WITH THE BASIC COMPREHENSION. A lot of the topics are complex, and he only covers about 20% of what we are required to know in lecture. I'm an A/B student, and even though I study about six hours a week for this class, and more before a test, I still score low on the exams. The questions come out of nowhere. If you don't believe me, ask to see one of his exams and compare it to his lecture notes. Regardless of what grade I get in this class, I'm planning to take Biochemistry again with a different professor, if only because I don't feel I've learned what I should have in this course.

- Dr. White is undoubtedly the worst Professor I've had whilst here at UD. I realize the brevity of that statement, however, I feel like I must be honest in this Course Evaluation. I am even doing better on average than the majority of the class, but I still find lectures to be so disorganized and unhelpful. Dr. White often seems to not have much of a plan and continuously erases parts of his notes - it's difficult to follow. Furthermore, I feel as if he came into the course with no real plan on how to teach a large lecture. I'm sorry, but I don't find it acceptable that his response to things if they seemed unclear was, "I'm sorry, but ideally we'd all be sitting at a round table right now. I'm used to teaching only about 15 students at a time." The reality of the situation was, he wasn't teaching 15 students, CHEM527 was a course of about 100 students. It was Dr. White's responsibility to determine the best way to teach this large lecture, regardless of how many students he was used to teaching and he clearly didn't. Another issue I have with Dr. White is that he is inconsistent. At the beginning of the semester he told us that our weekly quizzes would be short and simple - purely based on memorization of topics from lecture. Up until our last Thursday Quiz, I still had no idea how to study and prepare for them. The quizzes were not so straight forward, and often required you to simply try to learn every detail of the book and hope that the ones you could remember would be something a question would be on. When approached about this during lecture, Dr. White responded that he didn't want us to know what was coming on the quiz. I understand wanting to challenge us, and I understand that this is a graduate level course, but I hardly find it reasonable that a professor should not want us to know how to prepare for or what to focus our learning on in a subject. Another issue I have with Dr. White is that, with an average of a 41 on our first exam, he constantly asked us what he could be doing better. It would seem encouraging that he would want such feedback for his course since we clearly weren't doing well, but whenever we did give him feedback he wouldn't listen. He would just blow off whatever suggestions we had and find a way to tell us during lecture that our suggestions were wrong and his method still works. With an average that low, I would beg to differ. While, Dr. White is clearly knowledgeable as a biochemist, his value as a professor (at least for a large lecture) is severely lacking.
- Dr. White is very knowledgeable and presents the material in a way that focuses more on the actual application. I feel as though the purpose of the lecture was to spark interest in the student to go ahead and learn the material by themselves. Most of the time I didn't learn anything during the lecture. The tests were quite challenging too.
- The lectures were unorganized and it is hard to determine what is important.
- Used different methods for teaching which caused students to not strictly memorize the material but instead apply learned concepts to different situations.
- Hands down, this class was too large. Even as a lecture class, it is a shame that a 500 level class has that many students in it and is something that should definitely be broken into different sections based on major perhaps. Hal White did a great job none the less and I really appreciated that though it had to be a lecture-style class due to the size he did his best to not lose us.
- Couldn't read most of his notes clearly. Talked toward the board and constantly writing things down not really explaining things in too much detail which was expected later on tests. More complex for an intro course than expected almost no recommended reading sections or problems.
- Dr. White obviously loves what he does, but I found that this class was fairly unorganized. Lectures got confusing because he would erase and then go back and forth. He said that he wanted to hear our feedback, but even when we gave it, it seemed as though he didn't pay any attention to it and that we were the ones who were wrong, not him. At the beginning of the semester, we were told that quizzes would be to cover the basics of the material that we learned, however, quizzes were VERY detailed, and even after an entire semester I couldn't tell how to study for them and never felt ready. Overall, I was slightly disappointed with the way the class was taught by Dr. White and feel that he could improve upon several of these things.
- Dr. White clearly loves biochemistry and I understand that it is a very difficult course to teach with the amount of material to cover in the short amount of time. However the material was not presented in an interesting way, which for an hour and fifteen minute class at 9:30am would be really nice. More than that, he taught very basic ideas of mechanisms, metabolic pathways, etc. And would not go into detail but tests on detail. Also, sometimes he puts so much stuff on the board so that even when I'm completely paying attention I get confused about where we ended up and how we got there.
- Dr. White is one of the worst instructors I have ever had in twelve years of school before college and the five semesters that I have been at UD. He is scatterbrained and never presents information clearly. He constantly makes mistakes in his lectures and frequently contradicts himself. He has asked us for feedback many times. We provide feedback and he stubbornly disagrees with us, telling us how wonderful he is at teaching small classes. Well, CHEM527 has over 100 students, so it is not a small lecture. He refuses to teach to the class that he has. Furthermore, he contradicts what we are supposed to know and understand. He tells us that one thing will be on the quizzes, and then tests us on something else. Even by the tenth and final quiz of the semester, I did not know how to properly prepare for it. Dr. White was incapable of clearly teaching us the material and incapable of adapting to the size and needs of the class.
- He was very knowledgeable, knew the answer to all questions without hesitation. He had very interesting anecdotes that gave color to his lectures, and some helped to teach the subject in a different way.
- While I did not expect Biochemistry to be an easy class to master by any means, Professor White did help the class by presenting the material in a way that is easier to understand, than the book itself, which seemed to overcomplicate things because of the huge amount of details. While it was not always clear what Professor White expected us to know in terms of the exams, he forced us to think outside of what was considered "regurgitated knowledge", and strongly urged us to think outside of the box and on how to apply the "regurgitated information" to real life situations. Overall, I feel that Professor White was arguably the best professor I have had at the University of Delaware because he forced us to think about Biochemistry as a whole, and not just the nitty-gritty details.

- Dr. White was a passionate and helpful professor. I very much enjoyed his attitude towards the subject and I enjoyed his lectures.
- I found the book much more useful than the lecture, however I did attend every lecture.
- The lectures were not given in a way that helped student to do well on examinations. It was more concept based lectures with no problems or questions presented during class. This made it difficult for students to study for exams because the questions on exams were nothing like the questions in the book. Access to past exams from other classes professor white taught was given but that wasn't helpful for our class. I feel like there was no good way to prepare for the exams. Professor white suggested we do the questions from the book that we did not know how to solve but that is not helpful when the types of questions on his exams are completely different. It would have been more helpful for him to give us practice problems or go over problems in class. It would have also been helpful if he had put the answers to quizzes and exams online instead of posting them outside his office.
- I think Dr. White is an incredibly nice man, I just think sometimes his lectures were a little all over the place. It would have been nice if maybe there was a course capture or we could record him so we could go back and watch because I felt like I would miss some things and it would hurt me for the exams.
- nice guy, knows his stuff, liked to engage the class, but his lectures were super random and didn't really put cohesive outlines together to help students. he just kind of went off on odd tangents. To study for the test i would only use the textbook because i honestly didnt have any lecture notes that were good.
- Too much material and not enough time. Expected to know too much on the exams, a lot of which isn't covered in class. Exams should be more fact based instead of concepts that aren't even stressed in lectures.
- The instructor was confusing. He would give lectures on things that he would say not to worry about. He seemed to want to help the students out in succeeding because our exam averages are low, but when we gave him ideas on how to do so, he claimed too busy to actually help us. We never know what to expect on the exams, he is not very clear.
- Not at all helpful toward our understanding of the material. Rather, he simply disseminated information and examples we could have found elsewhere and never actually taught anything.

Question ID: 3608

Identify or describe some thing(s) that Professor White does particularly well.

Responses (62 of 109)

- Dr. White knows the material very well.
- He does care for his students so he is very willing to help us.
- Dr. White is very good at connecting what we are learning in class to a real-life situation or anecdote, which makes it easier to remember. He is also great at drawing diagrams to help organize the material and better understand it. The links to the metabolic pathways helped a lot.
- He really wanted us to learn and provided lectures that were interesting.
- returns tests and quizzes promptly
- Professor White demonstrates an outstanding understanding of the subject matter.
- He knew the material and stressed delving deeper into the topic.
- He talks well and has thorough knowledge of the material.
- He makes the lectures interesting.
- He does his best to make boring material interesting. I definitely got the most out of lecture during in-class activities and demonstrations.
- He does try really hard to bring in interesting examples
- He clearly knows what he's talking about and he tries to teach the material in an unconventional way, meaning he does not strictly cover what is in the book.
- Translates class material to real life scenarios. Explains not only what biochemistry knows, but how it knows.
- Tests ability to apply knowledge and solve problems.
- Professor White was very successful at providing help sessions and making himself available.
- I particularly enjoyed the egg white experiment, and the in-class glycolysis exercise. He uses interesting props, stories, examples, and experiments. He asks lots of questions in class to try to keep students engaged, instead of purely lecturing. He tries to get us to see the big picture and how things work together. I was never bored in this class.
- Dr. White definitely knows his stuff and can convey it pretty easily. I liked the in class assignments too.
- Professor White was very good at making analogies to compare complex mechanisms to everyday life. An example that comes to mind is his enzyme example where he has us imagine him throwing tennis balls to the back of the room, so that they fall back to him in due time, and how that motion shows the relationship of an enzyme to a substrate.
- Did well at relating some concepts to example in everyday life.

- Dr. White is very good at getting the class to constantly think 'why does this happen' when presented with new ideas.
- Can speak knowledgeably and passionately about the material.
- Dr. White is really good at giving the students additional viewpoints of bio/chemical processes. Sometimes they are simplified examples from our textbook, while other times his lecture will go beyond that in the book-- all are easily understood.
- He tries to find way to get the students thinking and active in the class.
- In Class activities
- Writes exam questions that in no way resemble anything he has taught.
- Dr. White is definitely willing to try new things to help the class to learn new concepts. He is also willing to stop and answer questions when students have them.
- He has a deep knowledge of the subject and is therefore able to answer questions that students have in class.
- I liked Professor White's way of explaining things with examples and especially relating the Noble Prize winners to that particular class he teaches.
- He really does try to make biochem interesting, which I'm sure is a tall order. He also truly cares about his students doing well. I love that he writes on the board instead of using power points
- he uses a chalk board which is helpful to slow down the learning and show the big picture.
- His PBL or POGIL or whatever it is called classes where students work in groups to explore the material are very helpful and a good break from long, straight lectures.
- very knowledgeable about biochem
- knowledge of the material
- Good at relating real world material to course information.
- When he occasionally did demonstrations for the class to get us interested in how things work and questioning the biochemistry of everyday occurrences, those were very enlightening lectures.
- He can talk forever without pausing to ask if we understand what he is talking about. He can also write really confusing and disorganized notes on the blackboard in such a way I have never seen before.
- He doesn't lecture. His voice does not have that tone. And that's a good thing. He sounds like he's talking to you instead of just presenting material. That demonstrates how well he knows that material. He is able to present it in his own way instead of repeating it word for word from the textbook. You can tell he has a lot of experience from teaching.
- I loved when he had different activities in class than just lecturing they were interesting and made it more fun.
- his demonstrations in class were helpful, but there werent many of them
- Dr. White is good at showing examples of how to apply the broader concepts of biochemistry to specific problems which helped prepare for exams.
- Makes students cry
- Seemed personable.
- I Liked the egg yolk demonstration and group work a lot.
- I didn't really like anything about how Dr. White taught or structured the course.
- He is very friendly and seems to be very enthusiastic about the subject. I feel bad giving him a bad evaluation.
- I did appreciate Dr. White's course website, with resources, challenge problems, and schedule.
- Dr. White can connect the material to actual applications. He always has an interesting story that connects to the lecture. Dr. White genuinely cares about the students doing well but some of us just don't get it.
- He takes time to answer questions and is concerned with students understanding all the material not just memorizing.
- He is good at catching student's attention.
- I really loved the stories he would share in class about his own experiences with the subject matter, especially how he taught the lesson on eggs! Also Andrew the TA was super essential to this class as without his help and extra explanations given at the help sessions I don't think I would have succeeded with this class. I thought that it was really great that the help sessions were three times a week also, I've never had a course that accommodating to different schedules!
- He is obviously very passionate about his job and wants us to learn.
- He teaches with enthusiasm. He loves the subject which helps to listen to a straight lecture. He also knows his material very well.
- Professor White is particularly good at confusing the class and at ignoring our suggestions on how to improve.
- He shows the broad impacts of biochemistry very well, relating every day things to the subject and explaining in great detail the biochemical explanation behind what is happening. After his lectures I have been looking at things a little differently in terms of what is really going on at the molecular level.
- Professor White did a particularly good job in giving us an overall picture of the important concepts and aspects of Biochemistry so that we can use that information to apply it to real life situations. I also particularly liked the live

information to study for an exam without a little guidance.

- I love the textbook. It explains things well. I had another BIOCHEM textbook and I liked the organization and flow of this one better. The only problem is that the course covers SOOOOOO much material, that it was hard to fit it all in. And in fact, we didn't quite finish in the depth I would have liked to....we ran out of time. I think this class required a large amount of time to be proficient, and probably more time than most students who are taking five classes have. This was a difficult and time-consuming, but interesting class.
- This course was way too hard for a non-majors course. I enjoyed biochemistry before this class and this class nearly made me hate it completely. I still don't understand why I am forced to take it.
- Many of my thoughts on this course are covered in my comments about the instructor. Mainly: I would have benefited much more in this course if it had actually been in a lecture format. This is neither dry nor is it boring, especially since Dr. White is so knowledgeable about the material and would be an excellent lecturer since he would strive to keep us engaged and interested. Instead, we sat in class and discussed things that we were already expected to master from the textbook. In my opinion this is not a fair way to teach undergraduate students very challenging subject matter like biochemistry.
- The exams tested well for understanding of the material which I think is good. But I did NOT like the short answer/blooms basement questions at the start of each exam. I know they are supposed to be easy points but I found it more useful to spend my time studying and understanding concepts and applying them rather than memorizing small details or facts that often appeared in these questions.
- I was really interested in this subject, until I took this class.
- Yes the tests did promote understanding of the material but the quizzes were rote memorization.
- The textbook is awesome! Beautifully written and easy to understand. Biochemistry subject matter is not particularly difficult, however, the way in which it was presented might invite some generalized confusion regarding rather basic concepts.
- the exams were often very confusing
- There was a lack of communication during the first week of class and on the syllabus for what was expected to be tested under exam circumstances. The weekly quizzes were somewhat straightforward, difficulty of quizzes were variant by topic but relatively easy. The exams however were completely ridiculous. I could seldom attend any weekly CHEM527 "unofficial" review/discussion sections, as they took place the same times as my Acapella RSO responsibilities. If it weren't for my friends in the class I would have missed a HUGE advantage for the first exam: a practice test regarding Advanced biochemistry questions, questions that would make you wonder how they were even conceived based off of our lecture notes and text reading. A major flaw of the course was no practice problems. The quizzes (at a much lower difficulty) were pretty much the only practice we were exposed to, also to which was delivered in a semi-stressful examination environment. The second exam killed me. I really focused on the wrong things, my studying was VERY unguided. As a chemistry major, I really love this stuff. We live in a chemical world and that concept always intrigues the mind. Although I did learn a lot in this class, my grasp on the material in relation to answering advanced level exam questions did not suffice to the standards set by the course. In addition, Dr. White always stated for the exams that there is no need to memorize the basic material, rather to understand the concepts and the larger implications, yet the first page of the exam is "fill in the blank", memorization-based questions. i.e) If you didn't memorize that one molecule's common name in that multi-step process or you don't remember the name of this year's Noble laureate, you're going to have a bad time. It saddens me that I did so poorly in this class, but I feel that my studies were not entirely to blame. With the possible exception to this being my first biochemistry class, it was the first core chemistry class that did not have practice problems. I am a terrible test taker (to the extent where the university DSS has granted me exceptions for my circumstance) and the sheer exposure to these questions make the mind panic. There was never a feeling of comfort or a reassurance of understanding, only panic. All of this may sound dramatic, but it is my true experience of this course. Dr. Hal White is an amazing person with great understanding and a kind heart. This course was more difficult than Chem321 322 (orgo) for me and I hope I pass the final. Godspeed.
- C
- Very Tough
- Very challenging especially while taking other challenging courses. Lecture often confused me and I found that I learned from the book better.
- I learned a lot about biochem on my own, but none of that knowledge was tested on exams. It is obvious by the extremely low averages on each exam. I have been admitted to medical school, yet this class made me feel like I was worthless and stupid. No amount of studying could prepare any student with no prior biochemistry knowledge for this course.
- The exams, rather than being an examination on the material, seemed to be an examination of other material from other courses with the background of what was learned in CHEM 527. This course tried to cover too much in a small amount of time. It is ridiculous that 2 chapters are supposed to be learned a week especially when tests and quizzes test minute details of these chapters. If the course is to be covered that quickly then tests should cover more general principles rather than details that are not important. More online information would be good. Providing extra study materials is a necessity that was not provided.
- I liked the course because it's more about understanding and implication rather than memorizing the pathways
- MUCH more emphasis on concepts rather than memorization. Quizzes were tricky and studying from the textbook helped minimally.
- The examinations were very different than I have had in other courses. I would have liked some exposure to the

types of questions so i could better organize myself and develop different methods of studying.

- This course is ALL about understanding the material deeply and not about memorization much at all. I like that.
- exams were very difficult and had a very low average
- Hard class that takes a lot of work.
- Tests were not a good depiction of the amount of information that I "taught myself" from the book nor the information learned from lecture.
- I think the tests did not accurately test us on our knowledge of the material. I also thought that the material on the test was too long for the time period we were given.
- Too much material
- The emphasis of this class is on understanding and comprehending the material and using this knowledge to apply the concepts in different ways, yet the course seems to cover so much material so quickly that students do not have enough time to understand the basics of the innumerable sub-topics of biochemistry in order to fully comprehend the way in which mechanisms, reactions, processes, etc. really function. I read the entire textbook and took detailed notes because I am truly interested in how everything really functions at the chemical level. Unfortunately tho took up massive amounts of time which took away from studying for my other classes, and prove to be not all that helpful because the mass amount of information which I was constantly trying to process didn't leave much room for questioning why exactly something works the way it does or how the concepts apply to other instances in the chemistry of life. I definitely think the amount of material which is expected to be understood very in-depth is a bit much for most students.
- Easily the hardest course I have ever taken with a professor who could care less about helping a student prepare for an examination to achieve success by eliminating material that is no relevant to the exams for studying purposes and also testing on material that is not relevant to the course.
- I did not like this course. But I wish I did. I hope that makes sense. The professor made me interested in biochem and I wish I was able to learn it well, but the way he presented the material made it very difficult and stressful.
- I thought some parts of the test were fair but many questions were asked that involved a lot of application which is fine but not for as many questions that were on the exam, I always ran out of time because he threw things at us that we had never seen before and the test was 8 pages long. if there were less questions worth more points I think I could have done better by spending more time on each question instead of rushing through.
- it was a very difficult course and prof expected us to know all the details about all of the mechanisms and such
- This course was very interesting. I liked that the lecture and textbook went hand in hand for the duration of the semester; it made studying and staying on track much easier. I also feel like I gained an understanding of how to apply the principles of biochemistry to a broad range of problems.
- Some of the transitions between topics were a bit confusing or awkward. I did like the textbook, because I used it to teach myself the information that I wasn't getting from class.
- The course itself definitely encompasses a lot of biochem, although I wish we had focused more on DNA and DNA replication - the class felt very metabolism heavy. I do think this course gave me an appreciation for the chemistry that actually occurs in our bodies - which you really don't get into in Orgo or Gen Chem.
- The purpose of the course was to facilitate understanding of the material, however the pace of the class made it near impossible. The class covered almost one chapter per lecture (2 chapters/week) which required by my estimate an additional 10 hrs/week outside of class to fully understand the material, which is almost impossible for most students that have full course loads and have other responsibilities like research, RSO leadership, etc. The course would probably be more successful if it were split into a 2-semester course, however that is impractical. Another suggestion would be to add an additional mid-semester exam to the volume of material on each exam would not be as high, and therefore it would be more realistic to expect students to know the material in the detail required.
- I personally found this course to be the most challenging out of all my classes. I never completely understood what was expected from me as far as level of understanding.
- This was an incredibly difficult course. Mostly due to the enormous amount of material and having no bearing of what is important to study. Professor White focused on learning instead of memorization which is very important. The only flaw with this is that he put a huge burden on the student to read every inch of the textbook and determine on our own what is important. Due to the tests being so difficult, it lead to the student having to know every inch of the textbook which is very difficult. As well, it is unfair to expect students attend the discussion sessions offered weekly because this is only a 3 credit class. The material taught in class should be enough for the exams.
- I personally found this course interesting to learn.
- The exams were very demanding in terms of the lectures which really made this class very difficult. I really think that this should be a class with a curve. But overall I really was able to learn a lot, it just was incredibly stressful and even more demanding.
- Memorization may have been required for small details for fill in the blank section on exams which from consensus most students left a lot of blank answers and lost a decent amount of points. Obtained basics from books but was under constant pressure to be ahead of the game in order to understand subject matter. Quizzes helped with maybe one question not the tests and were in my opinion useless because of small random windows of understanding either you knew it or you didn't. Quiz results and Exam results were discouraging and very staggered.
- This course was not exactly what I had expected. I found a lot of the material to be pretty interesting, but the way it was presented was sometimes confusing. While I understand that exams were meant to test our understanding

rather than just plain memorization, they sometimes seemed unnecessarily detailed and focused on specific things that weren't ever really emphasized in class. While Dr. White continuously stated that he wanted us to know the "main principles" and to take that information and apply it, the questions depended on very specific things that didn't seem to test on the main principles of biochemistry.

- I know that Dr. White stress that memorization is not as important as understanding. But, the truth is the exams really expected us to have perfect recall of a lot of things from the textbook and odd facts that he mentioned ONCE in class. I do appreciate the attempt to try to get his students to apply the knowledge of biochemistry. I just do not think that it is taken into consideration the fact that this is an introductory course and our understanding only goes so far. Especially when only the basics are being taught and any further understanding is coming from hours put in out of class reading the textbook. I know that I personally read every chapter(s) each week for the quizzes and re-read all the chapters before the exam and put in countless hours for this course, but I am only getting average. which should not be the case AT ALL. If a student is putting in that much time, and truly has an understanding of the course, they should do well.
- I cannot comment on the course. I expected it to be a good combination of biology and chemistry that would integrate and expand on what I had learned in the past. However, the disorganization and lack of clearly portrayed information failed to provide me with a strong foundation of biochemistry. What should have been an interesting and important course turned into a confusing tangle of unhelpful information.
- The tests were extremely difficult because they did not test rote memorization. Very high levels of understanding were always required. I would not recommend this course to someone who wasn't serious about biochemistry.
- While only a small portion of the exams stressed memorization of the material, the exams mainly stressed an complete understanding of the material and all of the general concepts involved in Biochemistry. Overall, I didn't find the textbook particularly useful because I often felt lost in all of the details involved in metabolism that I had trouble understanding the fundamental concepts of what is happening in the body. Overall, the course was fairly difficult, but well organized and emphasized a complete understanding of the material. No memorization is necessarily helpful for the exams.
- Understanding rather than memorization certainly made this class stand out.
- This course moved very fast! Covering one chapter a class is too much information too fast. Either make more tests or cover less material because 10 chapters of information for an exam is too much.
- I feel that the lectures were not clear and the book held little to no value in relation to the tests.
- This course required both a significant amount of understanding and memorization. The course seemed to shift towards understanding for the metabolic pathway chapters because memorization was unfeasible at that point. While it was clear what material required a good understanding, it was never clear what information needed to be memorized beyond amino acid structures.
- Could be more organized. I felt like there were times I would look back at my notes and it seemed not very cohesive.
- definitely tried to emphasize understanding over memorization but he didn't really do much good in lectures with helping us learn the material. i would say lectures weren't organized or super helpful to studnets
- The instructor claims that we must not memorize but actually understand the material, but still blind sides us with tiny details that we weren't suppose to memorize on the test...
- The course was overall convoluted. Apparently, the students were expected to have come into the course with a background in biochemistry since the material was never taught. Further, the book presented one set of material, the instructor covered part of it but in a different way and then, the tests and quizzes tested the material in a totally different third way. There was no preparation for being able to do anything with the information provided nor any real synthesis of the material. Accessory material needs to be cut from the course to spend more time on the core concepts of biochemistry to be able to really link them to previous student knowledge and to all other topic covered in the course. All the information disseminated was either covered in a 200 level prerequisite to this class or was so far beyond the class' understanding that none of it was meaningful.

Question ID: 3610

Reread the course syllabus and provide some thoughtful feedback. e.g. Did the syllabus adequately describe the course? Are there aspects of the syllabus that are unclear or misleading that should be revised? What is missing that should be included? Feel free to discuss this question with your classmates.

Responses (56 of 109)

- I dislike that a general grading scheme, even if it was tentative, was not included. Students have the right to know how they are doing in a course. The syllabus describes your philosophy on teaching, but I don't think it describes what the course is actually like.
- Yes the syllabus was clear.
- The syllabus adequately describes the course. I wish there was a section in the schedule that noted helpful problems for each chapter (similar to what is provided in organic chem) to help facilitate understanding and know what are the stressed topics of the chapter.

- The syllabus was good. The quizzes were very demanding because it required much work every week as did all of my other classes.
- It did not appear that Dr. White was interested in the success of students because he was not receptive to the feedback provided in class in regards to quiz and exam questions.
- When I read the syllabus in the summer, I was very intimidated and it made it seem like it would be very difficult to pass the course. That being said I went in expecting it to be really difficult and it was, not just for me though.
- The syllabus did indeed help describe the course and provide an adequate timeline of everything.
- This is a well made syllabus.
- The syllabus adequately described the course. It also, described the lecture sessions well as well. I felt that there was nothing missing on the syllabus; everything was fine.
- I feel the syllabus accurately reflected this course.
- The syllabus was fine.
- I agree that the class emphasized understanding more than memorization, which is always refreshing.
- The syllabus adequately describes the course.
- The schedule should not have changed as frequently as it did. I also think that days that didn't have challenge problems should have a set of textbook problems that coincided with the class listed. Another exam also would have been helpful, so that the second exam did not contain so much information. The syllabus could have also listed the pathways that we were expected to become familiar with during the course.
- I really liked how detailed the syllabus was. It provided no ambiguity in determining what material was to be covered, and it made it clear from the start that there were very high expectations in which to live up to.
- I don't really think that the expectations E and F about homeostasis from the ASBMB concepts list were emphasized, but the other points were for the most part.
- I though the syllabus was clear and accurate
- yes the course did live up to the syllabus.
- Syllabus was fine. Weekly quizzes are a great idea.
- The syllabus should include a more precise outlook on the types of questions/material that will be discussed rather than just stating an academic philosophy that we (chemistry majors) have been exposed to earlier in our academic journey.
- The only part of the syllabus that was a little confusing was the paragraph the talked about grades. It took a while to understand.
- Syllabus Material Was Met
- The syllabus described the course pretty well and nothing about it was unclear or misleading.
- The syllabus emphasizes that we should understand the material, not simply memorize it, yet each exam began with 20 fill in the blank questions. There is no way that can be successfully completed without memorizing small details from lectures.
- Yes, I do believe the syllabus described the course well.
- The syllabus did not explain the grading scale. I do not understand how this class is to be graded.
- The syllabus lays out everything nicely, but honestly that was the first time I really looked through it other than checking the grade breakdown. I feel like most students feel the same way.
- maybe something about establishing study groups and a more formal way to do that.
- It described the course well.
- should include the grading scale, should emphasize importance of study sessions
- The syllabus should depict that the lectures will be based more on story telling rather than note taking. If you want to learn about the material that is on the test, good luck. There was test material that was relatively close to material given in lecture, but was extremely vague since the course covered an excessive amount of information. Test questions were even given that were previously stated won't be on the test! "egg demonstration and nobel prize award names" The course was taught at a graduate level to students whom were first learning the material in a biochemically method.
- Syllabus was relatively helpful.
- Yes, the syllabus adequately describes the course. You may want to prescribe some summer material for students to review or learn before coming into the school year because a survey of biochemistry in this day and age, with more being discovered every day, is a ridiculous material to fit into the semester.
- I think the syllabus accurately describes the course. And as I stated before I now see that the syllabus does explain that there will be questions on the exams in a new situation but I still think that there were too many of those types of questions and not enough time to do them all.
- syllabus was clear
- The syllabus accurately described the course.
- syllabus didn't let on how difficult the course would be.
- Syllabus was fine.

- I think that the syllabus should have had more information regarding the grading for the course, because I had no idea how Dr. White was planning to grade until I asked him privately. I feel that grading is important and that it is something that students should be aware of from the beginning of the semester.
- I feel as if the syllabus did accurately describe the course. I think a more distinct grading scale would greatly be appreciated, even if it is difficult to do so considering there isn't a real "curve." Also - I feel as if the point on "attitude" deciding a final grade and whether or not it should be bumped up is a bit confusing. Would our TA's input be considered in this - some of us go to a lot more of his recitations where that might be clearer than just sitting in a lecture.
- The syllabus is straight forward and does state that the class is a graduate level course.
- The syllabus was acceptable.
- Yes the syllabus accurately describes the course.
- I really liked the challenge problems and how Drew was able to help us through them. This class really needs to be 4 credits though for what it was demanding.
- The course syllabus describes the general concepts that we covered in class.
- I think the amount that Dr. White expects from his students needs to be stated in the beginning. Also, the 3 hours put in for every hour of class is ridiculous. Especially when you take into consideration that, that amount of time still isn't enough to get an 'A' or even a 'B' for most. The students in this class are mostly in their junior or senior year of class and have so much to do. I understand and in no way expect for Dr. White to water down a course so the students can be less stressed or get more sleep, it's college. However, the expectations and necessary work, I think, should be clearly expressed in the syllabus. Also, answers to the challenge problems would be VERY helpful. I know that Dr. White stresses that the answers are not important, but more the understanding. But, that's not true. Answers are important. A response might be go to office hours or the review sessions. But, I personally had lab most of the times there was a meeting or had a previous commitment. The rare times I could go, I couldn't even ask questions because I didn't know the answers, so I didn't know if i was right or wrong. I had to get the answers and then later that night when I looked over it by myself I'd get confused and then not have time to get my questions answered until much later. Drew is great but he moves so fast and left people who were confused in the dust.
- The syllabus generally describes the course. However, due to the confusing nature of the presentation of material, I did not feel that the concepts were presented in a way that I will be able to apply them to future courses.
- I think the syllabus did a good job. Perhaps more warning as to the nature of the exams, however in retrospect due warning may have been given.
- The syllabus has actually done a good job in accurately describing the course because it strongly emphasizes that since Biochemistry is huge and growing field, there is simply no way to cover everything that is involved in Biochemistry (since it is only a semester long). Having said that, the course itself emphasizes that the students know and understand the underlying principles and concepts of Biochemistry as a whole, that they can use for later applications. I did not think that there was anything in particular that needed to be included or misleading in the syllabus.
- I don't believe that this course should be considered a graduate-level course. Any course that is titled "introductory" does not need a 400+ course number associated with it. That being said, I don't think this course needed to be taught as a graduate-level course either. After all, a graduate student would be taking certain courses because he wants to, not because they are required. Most of the students taking this course are taking it because it is required by the respective curriculum, and in that way, these students lack the passion and background knowledge to take a graduate-level course in biochemistry. I also disagree that the course was focused on understanding rather than memorization, since 20+ points on each exam required rote memorization, as well as many points on the quizzes.
- I really liked the syllabus. I thought it outlined everything very nicely.
- i mean i guess
- There should be an actually grading scale, instead of just saying that the class may or may not be curved.
- While the syllabus stated what topic were going to be covered in lecture from day to day, the actual learning goal of the course was absolutely ambiguous the entire semester as was what we were expected to be able to do with the material. Also, there was zero information provided in either the syllabus or by the professor as to how the grading system works. While I acknowledge some ambiguity in this area is typically beneficial to the student, in a class of smart, hard-working, and motivated students who typically excel in classes, not giving any of this information and maintaining a class average right around failing, unnecessarily stresses the students and decreases motivation and performance.

Question ID: 15574

In an informative sentence or two, describe or characterize CHEM-527 Introductory Biochemistry to someone who might consider taking the course, e.g What is the essence of this course?

Responses (64 of 109)

- The essence of the course is understand many of the processes that go on in your ordinary life that you are not familiar with. It takes on the question in a microscopic level trying to understand where we get energy or how or

metabolism works.

- CHEM527 is a course that synthesizes the separate material that you learn in general chemistry, organic chemistry, and biology classes, demonstrating the connections between those three subjects.
- It is a very tough course that does not only require hard work but also passion for the course. It is very hard to go to the exams fully prepared even if you tried reading the chapters and redid the quizzes and attended TA sessions.
- The course covers a lot of very pertinent and interesting information that will be helpful to any bio or chem course you take in the future, but you need a good background in biology and organic chem to understand it. You will spend way more time on this class than any other; pay attention in lectures, read every chapter, go to problem sessions, and do every challenge problem.
- We learned about the biological pathway that organisms use to respire and metabolize food.
- You will need to spend a lot of time on this course because there is a lot of information on the tests so it is difficult to find the time to study it all appropriately in the time that you have.
- It is a course that intertwines many aspects of chemistry and biology and requires a lot of work to succeed.
- This class requires intangible problem solving skills and significant amounts of time for memorizing pathways and how they work with each other. You do not need to remember any organic chemistry.
- This course teaches you problem- based type learning. It teaches you a science that let's you think outside the box.
- This is course that emphasizes both memorization as well as conceptual understanding, with a very large focus on the latter.
- Don't take White. Sorry...
- Combining key topics in introductory biology with the chemical understanding of how/why they work
- It is a course which teaches the fundamentals of the chemistry of our bodies. Fundamental molecules and pathways are examined.
- Understanding biological functions on the level of chemical reactions. Understanding patterns of biochemistry along with random facts the professor deems interesting.
- This course is about understanding the concepts of biochemistry and applying that knowledge to gain problem solving and analytical skills.
- CHEM527 is extremely difficult and requires a lot of work and reading. It has no element of memorization and you must rely on your understanding of concepts.
- Even though it is "introductory", it requires a great depth of understanding of the concepts, and a superficial knowledge will not get you through. The essence of this course is the chemistry of living organisms on a cellular level.
- Before starting this course I asked a former student of Dr. White's about it and his response was "If you work really really hard, you might pass the class with a C." This is exactly what I tell other students.
- Be prepared to read the textbook cover to cover and depend on it for a majority of the knowledge required to pass the class.
- The chemistry side of what goes on in the body. Basically metabolism and the so rounding topics
- This is a course that requires you to think and understand every concept in the book. It can be rigorous but also rewarding.
- It's fine. As an introductory level course, it's important that a strong foundation for the course is ARTICULATED PAINFULLY CLEAR before building upon it with relevant information.
- An general biology class, that has a clear and concise information of its chemical processes.
- To understand biochemistry and learn and apply chemistry to your everyday life.
- Chemical Look At Biological Systems
- Chem527 opens your mind to how all the biological processes learned about in the past proceed. Very helpful in conceptualizing these processes in your mind.
- Take this course with a different professor.
- This course teaches an overall understanding of biochemistry and the concepts related to biochemistry.
- The chemistry underlying the biological processes in nature.
- i would say that in this course one would learn the basic things in biochemistry like protein structure , amino acids , DNA and metabolism . I think it might set a good background if one is considering to take courses like 641, 642 or 643.
- This course is a all-encompassing overview of biochemistry that covers all the major types of molecules and reactions. It is a great course to take to get a basic understanding of most biochemical reactions.
- The course will relate the information you have learned in your first three years and apply it to body systems.
- This course is about understanding biochemical pathways, not memorizing them. It gives great background of the way these processes works which can be applied to many different biochemical pathways that work similarly. It gives you an understanding of biochemistry, not a summary.
- One can learn a lot in this course but may not want to devote so much time into it unless he's a biochemistry major or planning to go to med school.

- A thorough understanding of biology concepts with respect to the chemical basis of their origins based on a strong connection to mechanical pathways at a near graduate level of understanding to do well on the tests.
- Essentially it is applying concepts from chemistry to biological processes.
- To understand how the more macroscopic features of physiology actually occur in a chemical sense. Learning WHY things occur the way that they do, and learning the in-depth, microscopic mechanisms and pathways behind more generalized processes in living things. Integrating knowledge of chemistry, physiology, nutrition, and biology, and breaking it all down to its most intricate detailed level.
- Don't do it. If you have to do it somewhere else or with another professor.
- This course is biology to another level. You dig deeper into material that you might have learned in BISC207. You don't need to know as much orgo as your orgo professor might have suggested.
- the course is about the chemical reactions that naturally happen in the body and in nature
- This course applies the fundamental concepts of organic chemistry to biological systems. Take it if you are interested in chemical structures of organic, biological molecules and how they affect every day biological events such as metabolism and photosynthesis.
- Not just an introduction to biochemistry, much more difficult. Do not take course unless you have to.
- Gives a background to everything that you've been learning in biology. Very interesting, but difficult to understand.
- I'm not really sure what the essence of the course is, because I don't feel that I learned or gained anything from the lecture.
- The essence of Introductory Biochemistry is getting you to think deeply about the chemistry that actually occurs in your body. It requires the melding of multiple topics covered since Lecture 1 to fully understand how your body system works.
- Learn the basic concepts and then learn every possible detail. Memorization will not work.
- The course is very difficult. It incorporates biology and organic chemistry in a very conceptual way.
- The essence of this course is about being able to understand and apply the basics of biochemistry to different situations. It requires a higher level of learning, but gives students more complex thinking habits.
- From this course one is able to have a better understanding of the essential biochemical functions in a living system.
- In order to do well, you must know very fine details of the all the chapters, which is a huge time requirement, if at all possible.
- Course that you need to read chapters a week in advance to keep up with expectations and have a gauge on kind of whats going on. Recommend sitting toward front hand writing is a bit messy.
- The basic principles of the chemistry involved in all the body's processes.
- Chem-547 is a very important course, that I highly recommend in your undergraduate career, whether you intend to go to medical school or grad school, it's a highly informative course. That being said, take it in a time when you have time to give a lot of time and attention because there is no skating by in this course, no matter how much chemistry or biology background you have.
- This course is supposed to provide an overview of the concepts of biochemistry. Combining the processes of life and cellular function with the underlying chemistry. In reality, this might not always be what is taken away from the class.
- Do not take this course unless you are 1) interested in biochemistry, 2) are ready to work very hard to UNDERSTAND the material, and 3) are going to use biochemistry in the future and thus be able to retain the needed motivation to work hard to understand the material.
- CHEM-527 Introductory Biochemistry is a course that strongly emphasizes not just the memorization of facts about Biochemistry. It is more about forcing students to think about the larger picture of why the concepts in Biochemistry are important and how it can be used in real-world applications.
- A summary of this course would include the fact that this course emphasized understanding and not memorization. I would also say that this course integrated BISC207 (Introductory Biology), CHEM103 (General Chemistry) and a bit of CHEM321 (Organic Chemistry). The course was very interesting if you would like to understand the major molecules, enzymes, and metabolic pathways in the body, as well as some of the techniques that were used to discover them.
- The essence of this course are reactions in the body essential to life.
- CHEM-527 is a challenging course which covers a very large breadth of information in a short period of time, often requiring the student to learn the details from the book outside of lecture. However, if you develop an understanding of the concepts behind biochemistry and have the natural ability to think like a chemist, you are much more likely to be successful in this course.
- This course requires a lot of work and dedication, more so then your other classes.
- study the whole textbook and do problems
- Mainly biology, barely anything about chemistry except for organic chemistry, which is apparently a prerequisite.
- Never take this course. If you must take biochemistry at this university, take the 624 class because, there, at least you stand a fighting chance of learning something.

Question ID: 3611

Open Mic. Reflect on the course and identify those aspects that you like or think could be improved. Please suggest ways for improvement.

Responses (67 of 109)

- You need to have the tests weighted less. Try to have a participation grade in it or a project grade. TESTS ARE NOT THE ONLY WAY TO ACCURATELY TELL IF SOMEONE KNOWS THE MATERIAL.
- Especially on the second exam, some of the questions, like the phosphate question and the figure legend question, tested my ability to read your mind and know what you were trying to ask, not my understanding. With both of those questions, I knew the answers, but got them completely wrong because I didn't understand what you were asking. I don't understand why you asked us for feedback in November, and then, in the next class, you basically dismissed all of our criticisms and told us why we were wrong. If you can't look at our feedback with an open mind and consider the perspective of your students, why ask for feedback? You take a significant number of points off for minor errors. You say you give partial credit, but you really don't. For example, for the figure legend (NAD/NADP) question on the second exam, if people misinterpreted the question, they were not given any credit for the entire question.
- The lectures could very much be improved by using powerpoints and not just drawing structures on the board.
- Overall, I really enjoyed the information taught in class and the lectures on the material. However, this course should really be a 2 semester course (though, if it was I probably wouldn't have taken it). I think that its a ton of information and detail that is expected for us to know. With that said, I'm sure the curve will show who put effort into this course and who didn't, but as the raw grades go, I don't think anyone in the class is happy with them. For improvements, I think it will be a lot more helpful when there are practice exams. And I wish that the problem solving sessions had a recitation aspect of them. I felt that I needed 3 more hours of just lecture to understand everything.
- Sometimes I thought there was no way I could study for the quizzes even with reading all of the textbook information and using the lectures.
- It was nice that you asked for feedback from the class but it seems like you didn't embrace any of the suggestions we gave. It's a real shame you did not realize that the same tricks you used 13 years ago don't work today. You are a nice man, but your expectations for this THREE credit course were too much.
- The exam questions should more adequately reflect knowledge of material.
- I know that the second test was on so much material to include all of the metabolism stuff on one test, but I think that it would have been more manageable had the course been split up into 3 tests and a final. That also makes the tests worth less if something causes you to screw one of the tests up.
- The lectures were absolutely horrendous and inadequate in portraying any essential information. The material was difficult and made only more confusing by the disorganized lectures that merely consisted of reading from the textbook and senseless rambling that hardly affected the topics at hand. Furthermore, we were consistently told to not memorize structures (aside from amino acids and nucleic bases), yet large portions of lectures were spent drawing structures and mechanisms on the board, which was a complete waste of time that did not positively affect anyone's learning. Overall, this class was hardly beneficial to my development as a science student.
- More organic chemistry. Use PowerPoint because your writing is barely legible at its best. MORE PROBLEM BASED LEARNING because there is no other way to foster the test taking skills you require for this course.
- There should be more presentations in this class. Also, ud capture should be used. And lastly, more worksheet problems should be done in class, instead of doing challenge problems.
- Less of a necessity on memorizing pointless things out of the book. I would rather be told why a graph looks a certain way rather than just take it for granted that I have to memorize it out of the book
- More tests on less material, power point presentations, more information regarding material that will be on quizzes/tests.
- I would just say take it with another teacher if you want an A and if you want to feel confident about your ability as a student.
- THINGS I LIKED: -The weekly quizzes were very helpful for gauging the course. -Learning about real life biochemical applications -Learning how certain processes and biochemical functions were discovered. THINGS I DIDN'T LIKE: - "bloom's basement". specifically the types of questions incorporated. In my opinion, fair questions you used were applying what epimers and anomers were. Unfair examples were the professor who won a nobel prize from ud for... Mainly because that knowledge will not help me in any of my future endeavors in chemistry/biology. -not having the answers to the challenge problems. I understand and appreciate your desire to make us critical think, but I believe it is an individual responsibility to spend time understanding the question. And it is an aid to learning to determine correctness (where there is a right and wrong answer to a problem) A SIDE NOTE: If there were no grades for this course, then I would have enjoyed it ten times more. I love the subject matter and really enjoyed lectures involving applications. At an ideal college the main goal would be learning like this. Also, it seemed that the subject matter was directed to aspects the professor deemed interesting, and not material the students would deem interesting.
- Assign optional problems from each chapter to work on that are representative of what we might see on the exam.
- Improvement of the course might include: an extra exam, more challenge problems and textbook assignments, detailed expectations of students and more sources to improve your grade.
- Not enough time to cover the book. More of an overview....it was sometimes hard to see the overall big picture because

of all the details

- More guidance to students needs to be given in either the form of suggestive homework problems from the book or even answer keys to the posted challenge problems. I understand Dr. White's theory of that students will only just memorize the answer key but that only punishes the students that actually want to get a better understanding of the material but can't always make office hours. Also to expect students to know 300 pages of material without any sort of guidelines is counterproductive.
- I agree with Dr. White's mentality that understanding is more important than memorization. But in this society and our school system, GPA and test scores are of utmost importance to us students. So when an instructor makes it nearly impossible to succeed in the class without hours upon hours of perusing the textbook for answers to his test questions like this class, it becomes very frustrating and disheartening for a full time college student. I wish the instructor would understand this and make efforts to present more material in class in a lecture format, instead of the open ended discussion-based format.
- I think maybe adding in a 3rd exam during the course to minimize the impact of each. This would also help have another checkpoint to encourage complete learning of the topics as we go through them. I really didn't know what to expect on the first or how to study for it and I think that's why I did so poor compared to the second (51 pts. to 91 pts.) The second was a little overwhelming too because it covered so much information. This is also my concern for the final exams because it is based on so much information (almost 20 chapters) I'm not sure how to focus my studying to do my best. I did appreciate the pathway maps that Dr. had on his website I think they were very helpful to my learning.
- Simply make the quizzes not so specific and the course will be much better.
- Perhaps a clear, concise answer to the question, "So, what's the point?" at the end of each lecture would help refocus the class back to the most important concepts after 75 minutes of verbal tangents.
- I wasn't sure about the structure of this evaluation, my comments on improvement are in an earlier section.
- I really enjoyed the demonstration Dr. White did in class and also the group activity because I found out that I was able to retain the information better when we did group activities and demonstrations.
- Listen To Class Feedback In Mid Semester And Be Willing To Change
- Overall this class challenged me to think in a way I didn't think I could which is really cool and all however the weekly quizzes were too detailed in my opinion. Also going to class often felt like a waste in that I would often get lost and I never knew whether what I was copying off the board was correct or not which really deterred me from going. Basically, I felt going to work or going to the library was more beneficial than going to class. I guess more organized notes and slightly easier quizzes would remedy my problems with the course. While taking other tough courses as a senior this class was really the last thing I needed since it's going to contribute to pretty terrible grades and thus lowering my gpa but the challenge has only made me a better person for it.
- Why? You won't listen to the students and improve the class anyway. Feedback has been asked for multiple times and completely ignored or explained why it could not happen.
- I personally prefer problem based learning, ie, over view of the concepts and then doing problems to help learn them. I think that would be more helpful than going in detail on concepts
- Listen to the students when they tell you how to improve your course. Put everything (answer keys, study materials, etc) online.
- Don't be let down by all the entitled students in this class. I know you got a lot of feedback from students who don't like your grading or try to get more points. Keep up the good work and don't get discouraged. Students want professors to spoon feed them everything. This is college.
- I think that if somehow the instructor could pair up people who are at the same level or dedication, ie they read the chapter before lecture and do hw problems. And have a way to get those people studying together.
- The lectures got a bit tedious, just because it was pathway after pathway after pathway. The POGIL classes and egg demonstration were very refreshing. Other than that, I loved that the course was about understanding the theory behind biochemistry and not memorization.
- somehow needs more interesting lectures, practice exams would be helpful (with answers), answers to challenge problems
- All stated previously. More specific notes that actually relate to tests questions. More questions written on board by professor to help us understand his thinking process toward how we should answer the questions given on tests. More partial credit given for questions that were answered nearly correct. All the above.
- lecture should be more specific to material that will be on tests. Less textbook reading necessary.
- I think it's great that you're trying to get your students interested in finding biochemical lessons in everyday life and to stimulate their curiosity (such as with the egg lecture). However, the way in which general material was presented in lecture was not very organized, and often confusing, despite reading the book in depth. It seems as though you expect an almost unlimited amount of time to be available to your students to study biochemistry? yet we all have heavy course loads and cannot study the subject as in depth as you would wish, although we may truly be interested in the subject and wish to explore further into it. It is simply not plausible to expect students to have that many hours to read the entire chapter each week, fully understand it and be able to recall very small details for the quizzes and tests, and also be doing practice questions and looking further into subjects presented briefly in the book on their own. We must budget our time accordingly between classes, and the time required to do well in this class is a bit too excessive. We aren't super humans; Allowing students to do research projects about places in their life which they became curious about biochemistry would be a good idea to increase curiosity and encourage students to really comprehend the material too. (ex: researching the function of medicines which family members take, effects of toxins on pests, etc.)

- increase number of exams so that they cover less material. Include some form of study guide. Make quizzes on certain aspects or topics, not by chapter. Create notes before hand and bring to lecture so that they make sense. Take more breaks to ask if students understand the material.
- The quizzes were hard and the exams were hard. I wish they were easier. This class probably ruined my GPA.
- I liked when we had activities other than just lecture because they were still very informative and very useful to me because I am a very visual and kinetic learner so having hands on or visual representations really help me and it is tough when most days are just powerpoint in most classes. The chalkboard helps because you can draw visuals but its still not the same as a hands on activity.
- i think there should be practice exams because the exams were not reflective of the quizzes
- I don't think I would change anything about the course.
- I thought that the course covered too much material for one semester. It was unrealistic to test us on 8-10 chapters of material for an exam. The lectures only covered a small portion of the readings, and you tested us on facts that you never talked about in class. Also, you test a lot of applications and we get no practice in applications. To improve, you should not cover the entire book. Instead, I think you should maybe cover less material but cover it more thoroughly in lectures.
- GIVE US EXAMPLES FOR TESTS.
- The course required a lot of the student's time. The instructor should realize the student's time can not be solely spent on this one course alone.
- For an intro class, way to hard. No matter how much I study, I fail.
- The course covers a lot of information, but instead of presenting material straight from the textbook there should be far more emphasis on teaching applications as opposed to assuming that the students can just figure out how to apply relatively alien topics on our own.
- I think clarity is a huge issue in this course. It really felt like quizzes were just a game of luck every week. I understand not wanting to give us a clear cut definition of what exactly each question would be on the quizzes, but it would be helpful to have at least a clear knowledge of what to study. Also, the exams definitely covered a hefty amount of material. It felt as if our second exam was all metabolism, and barely anything pertaining to the 4 chapters we did cover on other topics. Perhaps in the future this course would benefit from three exams rather than only 2? Also, I understand the idea of the POGIL carbohydrates exercise, but I don't really think it helped me that much in the sense that I like closure on topics. I would have liked at least half a lecture afterwards devoted to Carbohydrates, just to ensure that I really understood the concepts based on my work on the exercise and my textbook references. I think the biggest issue of this course was just clarity. It seemed like there was no set plan or guidance whatsoever and it was difficult overall to focus myself.
- Please include weekly homework. More in class group activities. The test should reflect what is being taught in class more. Even though there's no lab for this class, you should include obligatory discussion sessions with the ta every week to discuss that week's material.
- A few things I would say that could be improved are incorporating more practice problems into the course. Not necessarily ones from the book, but ones that would be similar to exam questions.
- Make the course sections small in size, offer even more TA hours/sessions (maybe hire two), bump the course to 4 credits. Live capture/audio of the lectures, because often times I wasn't able to take notes the way I wanted to.
- Lectures were very unorganized, making it difficult to take notes. Each test covered too many chapters, and there was no way of knowing which topics would be stressed over others. Quizzes often only covered one small aspect of the chapters that were recommended. Some form of study guide, a better focus on the chapters for quizzes, and clear, organized notes would have made this class much more manageable.
- Lecture slides would be nice to present your work in a more organized and legible way. Wouldn't have to talk into the board while talking and could convey what you are trying to say in a way where students could hopefully respond with questions right away or more quickly.
- I think a lot of what I would improve upon has been covered in previous questions.
- It's a great course. I love the material and I actually enjoy reading the textbook. I just don't have time to put in the amount of time necessary to reach my normal level of achievement. I also feel that though I have a thorough understanding of the course, it is not reflecting in my test or quiz scores. It's disappointing. That being said, I have nothing but respect for Dr. White for teaching this course. I know it's a lot to cover and it is a hard class. I'm happy for the curve. Also, I hate that first sheet on the exam. So many small details, from the book or something that was said in passing once. I don't have a perfect memory, I can't do that. I like this course, and I would even recommend it. But I would not recommend it to someone in their hardest semester. Take it when you have time for it.
- This course needs to be more organized in order to teach a large lecture. Correct information should always be provided and lecture notes should be organized and easy to follow (I often can't understand my notes because of the excessive amounts of crossed out information, arrows, and disorganized pathways). Quizzes and exams should be on what was indicated. Important information should be clearly indicated. If we do not have time to cover a chapter in class, the important sections should be indicated. I am unable to memorize an entire textbook because I have to guess what might be important for an exam. I am extremely disappointed in this course. I hoped to gain a strong foundation of biochemistry for future classes, but I instead suffered through an extremely frustrating and probably useless semester of this course.
- I think an improvement would be to have a problem solving portion of lecture that prepares students for the questions on the exam. The lectures and textbook provided us with the material, but I don't think enough of us were prepared for the exam questions. I know that's what the challenge questions may have been for, but I didn't do them. If you made the challenge questions a bi- weekly homework assignment, I feel that would do the trick.

- I would really like to see more of the in-class activities and the in-class demonstrations because they really do help in promoting class participation and stimulate our interest in the material overall. In addition, it would also give us more of a feel on why the material in Biochemistry is so important by illustrating particular applications of the field.
- I would not really change much at all. Perhaps one thing I would include is more "easy" logic questions on the test (NOT more memorization) in order to boost up the averages on the tests so that the students are a little less demoralized by their grades. Aside from perhaps making the tests include more "easy" logic, I would have also mentioned at the beginning of the course to expect low test averages, in order to try to avoid the shock/disappointment of low test grades.
- office hours would be helpful for specific questions- emphasize reading the textbook is actually necessary in the beginning of the course as material will not just come from lectures
- Lectures could be improved greatly. Having lectures on powerpoints and having examples of problems that would be on quizzes and tests would be a great improvement. Maybe he should consider using clicker questions to give examples of potential problems while simultaneously getting the class involved and trying to increase attendance. Also, I believe it is extremely unfair to have the two exams spaced so widely apart. The second exam was on over a months worth of material.
- The worksheets used during the glycolysis lecture and the nucleic acid lecture were very useful because they gave the students an idea of the type of critical thinking that would appear on the examinations as well as outlined a large portion of what knowledge was expected from the students. The biggest downfall for most students in the class was the inability to determine what information was important and could potentially appear on an exam, and the worksheets provided a much more direct source of testable knowledge and concepts, reducing the amount of guesswork involved in studying for the exam. After all, the breadth of the course was so vast that one could have spent weeks studying for the test and still received a lower grade than a student who simply understood the concepts and type of logical thinking required to solve the problems.
- I completely understand that in the grand scheme of things everything that we learn is important. I personally did not need to take the class, I took it more for interest/to take a harder science course. With that said, I sometimes felt frustrated because I would put a lot of hours into studying for the exams, both memorizing vocabulary and understanding the concepts by doing practice problems, concept questions, ect. and then I would go to take the exam and feel like I completely focused on the wrong things. I felt like it was always a guessing game as to what would be emphasized on the exams and this was very frustrating. I felt like there were times where a felt like luck played a huge factor in my grade. Basically, I really think it would be helpful for students if you really emphasized what to study.
- im fine with it cause like i said there ended up being a massive curve on the exams and thats cool cause you can bank on everyone failing so theres like no pressure.
- I strongly believe in a study guide or practice test. If you are going to claim to want to help your students, make the time to do so.
- Well, you already tried this once in class then refuted everything we the class fairly unanimously asked to be changed, arguing that these were all our shortcomings. These weren't big or ridiculous requests, like, having a practice exam, taking class time to teach an understanding of the material rather than disseminating it (ex. taking several class periods to write up the biochemical pathways but never teach anything about them in any real way and then proceed to invalidate those lectures by providing the pathways on the exam), or to be more clear about what and how we are supposed to know material. Whenever prompted, saying either, you don't need to know this for the exam or, you should know everything, or, you don't need to know this but you should know it, is not helpful. The class needs to be more cohesive. The textbook should be a good resource which lecture time is then spent on to pick out the information and concepts truly central and important to an understanding of biochemistry and develop those concepts and the connections to be made. Then the quizzes and exams should both test in a manner which reflects the importance of these central concepts and how they and their understanding were presented in class.