

Final Course and Instructor Evaluations CHEM-342 - Introduction to Biochemistry - Spring 2010

Instructor: Harold B. White, III

The following are the responses of all 27 registered students to the University of Delaware's on-line course evaluations conducted during the last week of classes.

Question	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total (20)	Mean	Std. Dev
	1	2	3	4	5	N		
The course was well organized.	0	1	0	6	19	26	4.65	0.69
The course textbook was very useful.	2	2	13	7	2	26	3.19	0.98
The course examinations emphasized understanding of the material.	1	0	1	6	18	26	4.54	0.90
The course emphasized understanding of the material rather than memorization.	0	1	0	2	23	26	4.81	0.63
Overall, I learned a great deal in this course, including factual knowledge, principles of behavior, or skills.	0	1	1	6	18	26	4.58	0.76
I found the visit by Dr. Carlton Cooper to the class definitely worthwhile.	0	0	2	10	14	26	4.46	0.65
The process-oriented guided inquiry learning (POGIL) activities (e.g. protein crystallization for Zinoffsky, experimental decisions relating to Dintzis, and natural selection on hemoglobin for Allison) should be used in future offerings of CHEM-342.	0	0	1	11	14	26	4.50	0.58
It would be a good idea to form new groups after midterm.	8	8	2	5	3	26	2.50	1.42
Peer evaluation of student performance within groups was a worthwhile activity	0	3	4	11	8	26	3.92	0.98
My group would have done fine without a tutor-facilitator	4	16	3	3	0	26	2.19	0.85
I think examinations in CHEM-342 should focus more on factual information and less on problem solving.	4	9	6	5	1	25	2.60	1.12
The assignments I turned in were graded and returned promptly.	0	0	0	1	25	26	4.96	0.20
A considerable amount of the material in CHEM-342 reviewed material I had studied in other courses.	1	4	6	6	9	26	3.69	1.23
It was a bad idea to change tutor-facilitators after Spring Break.	5	5	6	7	7	25	2.84	1.28
My jigsaw group's concept map reflected mostly the efforts of one or two group members.	2	10	4	6	4	26	3.00	1.26
I think grades in CHEM-342 should be based solely on individual	0	16	7	2	1	26	2.54	0.81

CHEM-342, Introduction to Biochemistry, Final Course and Instructor Evaluations, Spring 2010

performance.									
I talked about subjects and issues arising in this course with people not enrolled in the course.	1	1	6	13	5	26	3.77	0.95	
I feel that I can apply the general principles I learned in CHEM-342 to problems in other courses.	0	1	09	9	16	26	4.54	0.71	
I found the hemoglobinopathy assignment worthwhile.	0	1	6	7	12	26	4.15	0.92	
As a result of this class my ability to find, read, and analyze information has improved.	0	0	1	8	17	26	4.62	0.57	
I feel confident that I can read and understand research articles.	0	0	2	11	13	26	4.42	0.64	
I am comfortable working in groups.	1	0	0	7	18	26	4.58	0.86	
I feel comfortable sharing information.	1	0	0	8	17	26	4.54	0.86	
I feel comfortable asking help from others.	1	0	1	9	15	26	4.42	0.90	
I feel comfortable in relying on information obtained from others.	0	1	4	14	7	26	4.04	0.77	
Given the opportunity, I would like to take another class designed like this one.	1	3	2	7	13	26	4.08	1.20	
Discussion of the mystery molecules helped me make connections to things I had learned in other chemistry courses.	0	3	1	14	7	25	4.00	0.91	
I found the course web-site to be a useful resource.	0	0	1	7	18	26	4.65	0.56	
I found the quotations on the board thought provoking.	0	2	2	13	9	26	4.12	0.86	
I enjoyed working in the jigsaw group for one week.	2	4	4	8	8	26	3.62	1.30	
My group made use of the classroom library	0	3	10	11	2	26	3.46	0.81	
I found the scratch-off group-quiz format a useful learning activity.	1	2	3	7	13	26	4.12	1.14	
Having a group outing at the beginning of the course helped my group to work well together.	0	2	5	11	8	26	3.96	0.92	
Overall, I would rate this class:	0	1	1	7	16	25	4.52	0.77	

Question	1 - 0	3 - 2	5 - 4	7 - 6	8 or more	Total (26)
On the average, the number of hours per week I spend working on this course outside of class is:	0	3	9	8	6	

Essay Responses for CHEM-342 Section 010 for 2010 Spring

Question ID: 3436 Comment on the course.

Responses (18 of 27)

- Very interesting and thought provoking course. Much harder than the rest of the courses I took this semester.
- The course was very interesting and I learned a great deal. It teaches valuable lessons on how to go about obtaining knowledge and how to read scientific literature, which is a greatly important skill to have.
- best course i've taken at UD. i've learned more than i have in my life, and i feel proud to have learned it because i was personally responsible for finding the majority of the information. contributing my knowledge to a group also helped understanding, and i've discovered new and effective ways to comprehend difficult material.
- Good course which is a great introduction to scientific articles and research.
- Like I've said I really enjoyed this course. It was interesting and enjoyable. I definitely know more about hemoglobin and sickle cell anemia than i would have ever imagined, but I'm definitely glad i learned it. I hopefully will now do well in 641
- This was my first biochemistry course and was an eye-opener. I am very glad that this class is a pre-requisite for other classes because it ensures you that you are not getting in too deep. Also as a biochemistry major it was a good class to make me more confident in further discussion of biochemistry. Although we covered a very small amount of material (hemoglobin) we delved very deep into hemoglobin and I feel as though I could give a very sound explanation to undergraduates and graduates alike as to what the hemoglobin protein does under different conditions.
- I would have liked to see a slightly larger memorization base for the course - while I know that's what 641 is for, an introduction would have been nice. Other than that, great course! Had a lot of fun and learned a great deal.
- Overall, this course really helped my learning skills. It gave me techniques that I could use in future classes.
- It is a great course, sometimes it can be difficult to understand the material given the complexity, but I would take this course again if I had the opportunity
- This course taught me how to not just create random questions but how to compose my questions to get at large concepts I do not understand.
- I was skeptical at first, but I am glad that I was not allowed to skip this course in my senior year. I have never before traced the historical progress of a scientific pursuit before. I wanted to say this to Dr. White in person, and I probably will anyway: For me, the authors of the articles really seemed to come alive towards the end of the course. They actively reference each other, not just in scientific procedure but in acknowledgment and personal correspondence. As they learn more and uncover new challenges, I began to feel their triumph and frustration. This was an irreplaceable way to gain a sense of my roots in biochemistry, and to appreciate the struggles a few of the great men whose shoulders we all stand on today.
- I really like the PBL method because it makes the course a lot more interesting.
- The course is set up in a fun manner as we don't have to sit there listening to a lecture (as much as I prefer it, I do find it boring). This course really branches out to everything we have learned prior which is not something I see in many classes (as generally it is learn/memorize, take a test, and

forget about it). The teaching formats of other teachers really interfered with my progress in this class.

- The course was very different than other classes but it was definitely very beneficial and necessary to my education.
- nice
- This course was helpful because it was structured differently than any other course. We had to research a lot outside of class time and there were a lot of opportunities for class participation and discussion. It is very helpful to discuss with others because you can figure out if you really know the topic and you can hear what other people think although I would have liked if Professor White did lecture a little bit more about the articles.
- Great course. Although I probably won't receive an A I am happy with what I have learned and accomplished in the course. It is a lot more satisfying learning things through discussion and independent research to really understand the material, rather than regurgitating facts from a lecture.
- This was an extremely beneficial course. I now feel that I can take on almost any scientific article and maximize my learning from it.

Question ID: 3607 In an informative sentence or two, describe or characterize CHEM-342 to someone who might consider taking the course, e.g. What is the essence of this course?

Responses (24 of 27)

- This course is extremely beneficial to students in far more ways than accumulation of biochemical information. It helps create or hone a sense of individual interest and curiosity by helping you discover both the information and the process through which information is attained. Helped me learn smarter and be genuinely interested in the biochemistry.
- It causes you to take information previously learned and apply it to all aspects of science (biology and chemistry alike). Sometimes answers cannot be found in writing, so there is a considerable amount of problem solving.
- This course directly teaches you how to succeed in the discipline of biochemistry. There is emphasis on understanding original scientific literature and principles of biochemistry.
- CHEM-342 is a problem based learning class where you work with a group of two to four other students (usually biochem sophomore majors) and a teaching assignment at a round table. You're charged to read scientist articles and learn through researching issues you had while reading the article and discussing with your group.
- During this course your dedication to biochemistry will be tested, and you'll doubt capable you are to learn new information, but at the end of the course it will all be worthwhile.
- A review of important chemistry and biology-related concepts and procedures important for the study of biochemical publications.
- This course is designed to help with the understanding of scientific articles and working together in

groups.

- The essence of this course is looking at the a protein in detail understanding its synthesis and function through structure and applying these concepts to other biochemical processes.
- This course is an introduction to biological chemistry and the way that it effects our every day lives. Hemoglobin was our main topic but the essence of the course was the chemistry of blood and its interactions with the human body.
- This course does not teach you material in the traditional way; it teaches you how to think.
- In this course, you learn about principles of biochemistry in regards to proteins. You learn how proteins function, about their mutations, stability, and structure by reading the findings of individuals who have studied an important protein; hemoglobin.
- The essence of the course is to introduce you to applied biochemistry through Hemoglobin. It is used mainly to make the connections to the world of Biochemistry.
- This course will not only help you learn general principles of biochemistry through hemoglobin and sickle cell anemia (among other things) but I it will also show you how to find information and ask questions that are important to your understanding of the topic at hand.
- This course allows you to look over the shoulders and into the minds of several brilliant scientists who tirelessly worked for a century to unlock the secrets of Hemoglobin. You will sympathize with their frustration, marvel at their ingenuity, and ultimately imitate their logical style ot formulate your own explanation of a related molecule.
- Chem 342 is a class that encourages to think outside of the box and make connections from all fields.
- The best part about this course is the PBL method because it really does help you to learn material in an interesting way. It was so much better going to class knowing you get to work with others rather than just sit in a lecture for an hour. Being able to work with others also helps in the process of understanding these articles and figuring out what's going on.
- Chem-342 is a class where you go beyond the lecture and textbooks in order to understand unknown things.
- This course is very thought provoking and will test your ability to think openly.
- The essence of this course is using various sources to define and describe biochemical jargon in order to understand the thought process that scientists used over time to determine ideas, functionality, structure, and the chemistry of hemoglobin
- Working in groups and identifying learning issues
- This course is less about factual information and understand and more about learning to understand research articles, and becoming comfortable with them, as well as making connections between all the sciences. This class outlines the evolution of biochemistry.
- It is not about knowing facts or memorizing information. It is about learning to seek out answers and apply things you have learned previously to another situation. Although it is a chemistry class, the skills learned can be applied to all areas of study. It is not so much about KNOWING as it is about LEARNING. I did not have a strong chemistry background but felt successful because through the group discussions and research on the complicated scientific articles I was able to uncover information on my own- and through the process of trying to understand one concept, others were picked up as well.
- This class is a great introduction and resource to learn how to read scientific articles and papers. It

is not your traditional boring lecture, but rather a group learning format in which you don't rely on the professor, but on other students. You must hold yourself accountable in this class to not let others down because if you don't do your work, you are disappointing at least 4 other students too.

- It was an interesting and in depth way to study both hemoglobin specifically and proteins in general. The group learning atmosphere was effective, fun, and helped to make the experience personal.

Question ID: 3611 Open “Microphone” Reflect on the course and identify those aspects that you like or think could be improved. Please suggest ways for improvement.

Responses (19 of 27)

- One of the things im unsure about is whether or not i think groups should change after mid term. For myself, there are many ways in which i would have liked being in a stronger group. However, i also feel that for overall learning in the class it may be beneficial to keep the same groups. It allows or group dynamics and interactions to develop for a longer about of time. For example, thrown into another group, it is possible some group members wouldn't have felt as comfortable working. It would be like developing good group dynamics, then destroying them and forcing groups to start over. I personally would have liked a new group, but overall i feel it is beneficial to keep the same groups for group learning.
- I did not like the jigsaw groups at all. I missed one day in my group, and although I read the article and understood most of it (since it corresponded to another class I was taking) my group managed to confuse everything in the article. I tried to bring all of the pieces back together but it was impossible due to the amount of time I had left. Because of that our assignment was not properly done. Yes we will have to work in random groups when we get real jobs; however, these random groups will be comprised of people who know exactly what is going on. As for the format of the course; it was nice to learn how to read and figure out what was going on in articles, but after the first few I found this to be a mundane process. There should have been more lecture and less discussion because the people in my group are not experts on every topic; this causes information to be missed, or not reviewed.
- While I have learned a lot in this course, I believe I would have learned more (and learned faster) if there was even just a little more time used for lectures. The amount of material covered in CHEM641 is very significant, and from what I have heard, while CHEM342 does give some background knowledge, it is not the strong foundation many students were hoping it would be. Nonetheless, the most important thing about the course was having everything be put into perspective in terms of what the future holds for the students and how to succeed in a scientific discipline.
- This course was as powerful as a titanium centrifuge. I went into the course worried about how well I'd be able to do in it, but as long as you can identify what you don't know... you have the ability to work hard to find out how know it.
- All of the articles link well together, but maybe some of them could be a little more interesting. I really didn't like Dintzis. I found it complicated and kind of dull, but the others were okay. I would

say that a grading scale, where we knew what each assignment counted for, would be helpful so we have some sort of idea where we stood in the class.

- I think a brief questionnaire answered at the beginning of the course might give a good assessment of what people might do well working together rather than the random placement of peers.
- There is not much that I would change about this course. Dr. White has been teaching this course for over a decade and he knows exactly the right way to teach it to get the most out of each student.
- I think that Professor White should lecture more in a more formal way. I think that the all the articles should be available in the course reader. Also, it should be taken into consideration how the groups work with each other, and possibly have a group member change.
- I think that the help session at the library should have been earlier given the sheer amount of investigation that was needed. I think that changing group tutors was a little earth shaking given that we had a connection with our first tutor and enjoyed working with him.
- I would have liked another speaker maybe like one speaker in each term. One before the midterm and one after the midterm. My groups loved the scratch off group quizzes we always made it entertaining. I feel the class would be greatly discouraged if groups were remade for the final half of the semester. All around great course where I feel I am graded off of what I know instead of how much I could memorize like other courses.
- After working together so long, some of my group members took on comfortable roles and sometimes found it difficult to break out of them when pursuing a topic. For these reasons, it would be a good idea to do periodic anonymous peer evaluations of group members.
- The exams could include more material from the articles.
- I'm ashamed my mid-term grade wasn't as good as I wanted it to be and in turn, it was a huge turn-off for the course in general. I've learned to approach things differently rather than relying on just what is in front of me so hopefully I can put it to use down the road.
- ...It was awesome
- More involvement of/with Dr. White to keep groups headed in the right direction and studying key topics
- I think an improvement would be to spend half a lecture or a whole lecture talking about each of the articles as a class when were done with them where we can ask Professor White questions and he can lecture us on the main points of the article in his opinion so we are sure that we have learned the correct information. I enjoyed working with my group a lot because they were knowledgeable and excited about the subject, but sometimes I felt we didn't use time productively when we had differing ideas or weren't sure how to go about a question.
- This was already discussed with Dr. White in class, but I think it would be nice to have a hard copy of all of the scientific articles in the course reader. I purchased the course reader but hardly used it. I also did not print out some of the articles, so I would bring my laptop to class. It would just be more convenient to have them in one area, and it is very nice to mark up a hard copy, rather than taking notes on a separate page. I understand the course reader will be more expensive, but I think a lot of students would be willing to pay more for the convenience.
- I liked that we were encouraged to use the blackboard, but oftentimes students at the blackboard were hard to hear because they were facing that direction or further away. I feel this could be improved by placing white boards in the middle of the table where EVERYONE could have a marker and be looking into one focal point that everyone can see and hear from.

Final Course and Instructor Evaluations
CHEM-342 - Introduction to Biochemistry - Spring 2010
Instructor: Harold B. White, III

The following are the responses of all 27 registered students to the University of Delaware's on-line course evaluations conducted during the last week of classes.

Instructor Evaluation

Question	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total (20)	Mean	Std. Dev
	1	2	3	4	5			
The instructor demonstrated thorough knowledge of the subject matter.	0	0	0	3	24	27	4.89	0.32
The instructor presented the materials in an interesting way.	0	1	1	4	21	27	4.67	0.73
The instructor encouraged class participation.	0	0	0	2	25	27	4.93	0.27
I would recommend this instructor because of his/her teaching to others considering taking this course.	0	0	2	4	21	27	4.70	0.61
The instructor's lectures were well organized.	1	0	2	6	18	27	4.48	0.94
The instructor was helpful if you sought help outside of class. (Don't respond if you didn't.)	0	1	0	5	18	24	4.67	0.70
Overall, the instructor was effective in facilitating your learning of the material in this course.	0	0	0	8	19	27	4.70	0.46
Instead of group work, I think Dr. White should lecture more.	5	7	3	9	3	27	2.93	1.36

Essay Responses for CHEM-342 Section 10 for 2010 Spring

Instructor: Harold Bancroft White III,

Question ID: 3435 Comment on the instructor.

Responses (20 of 27)

- Unique problem based way of teaching understanding rather than memorization combined with great personality, knowledge, and interest in welfare of students makes professor white possibly the best professor i have ever had, both educationally and amount i have enjoyed his course.
- The way the teaching was designed was very unique and I thought it was a good way to learn

- Dr. White is a great instructor and very much cares about his students. His door is always open and he is quite willing to speak with students. He will never answer a question directly because he wants the student to figure it out themselves. He strongly believes in the process of learning, and true understanding must be acquired by the work of the student.
- Dr. Hal White is the man. Dr. White teaches his students how to find information and not merely know the information, but understand it.
- Dr. White is the most personable professor i've had in my life. He genuinely cares about the learning progress of his students and if you seek help outside of class, he helps you until you understand the material. He is an interesting professor to talk to, and always finds a way to make you search your brain for the answer instead of just telling you. some might be frustrated by that, but i've learned too much from him to let it frustrate me.
- I think professor white is a fabulous professor. His teaching style made this my favorite class. It was the first time I had a class that I really loved going to. An 8 am MWF is rough, but i got through the class because i really enjoyed the class. The way the class was taught helped with my understanding much more and I definitely think I will be ready for 641.
- Dr. White is one of the most intelligent men I have ever met in my life. He was always ready to field any questions that we had about the topics and encouraged class participation by creating groups and having each group read an article and discuss. This class has improved my learning abilities and has allowed me to think much further outside of the box. Dr. White has also made me realize that if I want to become a successful person later in my career that I will have to spend many hours researching things that I have never thought of before.
- Enthusiastic, helpful, thought-provoking teaching style.
- Very nice and encouraged the students to learn. Made the class very interesting.
- Professor White is great, he is very knowledgeable about the material and inspire us to try our best in the class. He is a great resource to go to as well.
- The instructor was very organized and on top of things. Sometimes I wish he reacted with our group more.
- This is the second time I've had Dr. White as a professor. The first time was in his CHEM643 course. My experience in this course was similar to what I had in CHEM643: Dr. White is one of those rare professors who not only cares about his material, but genuinely wants to find the best way to get you to care about it, as well. Every assignment has a purpose which may or not be immediately clear, but is always explained at some point. I do not feel that I have ever been given busy work in this course, nor do I feel that I have ever received a grade which did not honestly reflect the amount of effort that I put in. Due to his ability to inspire and enliven seemingly every student he comes into contact with, I consider Dr. White is an excellent professor who I can only hope to collaborate with in the future outside of the classroom.
- Professor White is a nice guy who has great understanding of the topics we discuss. His teaching method is different than most classes so I had difficulty adjusting.
- Dr. White is an amazing teacher, that is helpful and cares about the students actually understanding the material present in class. He is very open to visitors and attends functions all the time and is willing to talk to the students during those times.
- PBL is awesome. I learned so much. Every bio and biochem should take this course
- Dr. White facilitated our learning through a series of publications and learning activities. His technique is effective.

- Professor White is extremely knowledgeable on the topics he teaches and it passionate about teaching his students in a way that will help them with all other courses and research in the future instead of just memorizing and regurgitating material. Professor White has a different teaching style and it is critical to be able to learn things on your own and actually figure out what you don't know, in order to become comfortable with the topic.
- I really enjoyed Dr. White's introduction to Biochemistry course. After a bad experience in Organic I had a bitterness and fear towards chemistry, but the structure of his class and way material was learned was awesome! I feel like I have taken more out of this class than I have any chemistry course thus far. His teaching techniques of participation and problem based learning are far more effective than any lecture. I actually do not dislike chemistry anymore.
- Professor White is a "breed of his own." He presents materials in a way I've never seen before and helps me not only teach myself, but also learn from others. He always has time for his students and is extremely helpful.
- I really enjoyed both this subject and the way it was taught. It was a great way to start the morning at 8 AM, and was always interesting. It was interesting how we progressed through the articles in order as if we were reading them as they were published.

Question ID: 3609 Identify or describe some way(s) that Professor White could improve his teaching (and your learning).

Responses (20 of 27)

- There's very little if anything at all. His course is one of the best and most uniquely structured courses I've taken.
- Lecturing more (himself). Unfortunately this class all depended on what information you learned previously, as a junior taking this course I admit it was frustrating to recall information from classes I took almost a year ago, while most students were taking those classes in conjunction with Biochem.
- Although the process of learning is important, I would have learned more in this course if Dr. White answered more questions. Nonetheless, I did learn a significant amount in this course.
- A way that Professor White could improve my learning is to possibly describe the importance the environment plays on protein synthesis.
- I think there should be more emphasis on the POGIL activities, as an encouragement to work on them more thoroughly.
- I would say something that could help out would be maybe a class discussion about the articles at the end of each one. It might be nice to make sure we have all of the right points. Sometimes on exams there are questions that we are unsure of because we didn't know if we should focus on that material or not.
- I believe that if he included more overall class participation into each days lecture it would benefit the groups a lot more. It would also be beneficial if the classes lasted longer although it is a MWF class 50 minutes goes by very quickly when you are discussing an article. I believe that it really takes about 2 hours to really get into the material and by that time we have moved on to a new article.

- I would have liked to see a few minutes of formal lecture at the beginning of each class.
- Engage is more overall class discussions, not just individual group discussions. Also, have concrete objectives that need to be learned with each article.
- I think that he made comments about having only one computer instead of several ones per group.
- I really enjoyed the pogil worksheets and thought they were good. I think a lecture component to the class would be good just for a foundation or mixed approach. It does not have to a lot of time spent lecturing just for foundation.
- I wish there was an easier way to predict what will be on Dr. White's exams. However, the absence of this information plays a role in the learning experience. Dr. White could improve the course slightly by making it easier to access some of the articles that we were assigned. On several occasions, I had to hunt them down through the library's resources because the link on the course site was dead or the article was not in the reader. Speaking of which, I practically did not use the course reader at all this semester. It might be good to update the material in the reader so that it is more relevant to the in-class material.
- The way this class worked was there was not any notes to follow. You get an article, understand it through external means, and discuss it with your group. I thought this approach was too casual and I found myself falling behind as the rest of the group did most of the work. I tried to pick it up for the second half but it was def. something I was not prepared for.
- I found no problems.
- ...more varied articles? Um... there's just too much to cover. He's great
- Making the main points of each article clearer so that those topics could be focused on when studying.
- Professor white could go over the (correct) main points of the articles we discuss once we are done discussing them because a lot of our answers come from our tutors, who are knowledgeable, but may not remember some information. It would be helpful to spend some class time with Professor White discussing the articles once were done to make sure we understand the correct information.
- It is difficult to think of ways Dr. White could improve his teaching. While he didn't lecture, at every class he interacted with each group- prompting questions and more learning issues. Rather than always providing direct answers to questions, he encouraged us to seek out solutions ourselves.
- The only thing that comes to mind is that he could give the tutors a little more guidance as to specifics of what should be taught and what he considers correct and most important.
- I enjoyed the teaching method, and I wish more classes were taught like this. I have no complaints. The only thing that might have helped a small amount is if Dr. White gave a brief summary of each article to the class after it had been discussed. This would clear up any misconceptions the group had discussed, and ensure that everyone knew what they needed to keep looking at.

Question ID: 3608 Identify or describe some thing(s) that Professor White does particularly well.

Responses (22 of 27)

- Does a fantastic job of making you understand what you are doing. More importantly, he helps cultivate a great learning environment and helps give both a sense of confidence and self responsibility for understanding and learning. As much a course about how to learn than what you are actually learning.
- He makes sure that everyone is understanding the key points to articles
- Dr. White is very good at asking appropriate questions to facilitate learning. He mediates group discussions well and is good at assisting when the group is confused. He also provides some relevant information at the beginning of each class before group PBL discussions start. This is usually helpful and important. Also, when Dr. White does lecture, he is very organized and clear.
- Professor White asks questions that teach the reason behind the things we study. Everything is not memorization so we'll keep the knowledge and understand better.
- Professor White did a very good job encouraging constructive group work.
- He really makes us understand the material rather than simply memorizing facts. In order to succeed in this course you needed to have full understanding of what was going on, and he did that well. He gave us resources that always helped and we could always use. His class was hard, but it was my favorite one.
- He makes students realize that they already know the answer, but they just need to reason their way through the facts to get to the answer.
- He makes sure that all of the students have a solid grasp on the information while challenging us to work to understand the material. He did not just roll over and give us the material we would have to do research and come up with our own ideas before he would give a more sound explanation.
- I enjoyed the hemoglobinopathy assignment. The group quizzes were challenging but also rewarding - I liked the types of questions Dr. White asked, often quite unconventional and forced one to consider things from different angles.
- Encourages individuals to talk and engage in conversations. Motivates students to learn.
- He makes you teaches you how to question everything, that no matter how small an issue is, it is still an issue and an answer to it must be found
- I liked it when he did lecture and explain confusing topics to our groups. I felt the review sessions were very helpful as well.
- He provides the tools to solve problems when students are stuck, but almost never gives away an answer. His teaching seems to emphasize the journey rather than the destination. He is also very good at assessing a students' knowledge of the background information involved in a question, allowing him to provide guidance from a point which is near at hand but not too close to the solution.
- Professor White is very good at explaining and demonstrating concepts in class in a way that makes it very easy and clear to understand.

- Professor White really does a great job at explaining difficult topics. Though I prefer lectures and a test to go along with it more than his approach, I found that it can really help prepare you for similar situations outside of college as there won't always be someone to guide you through things.
- The class structure and has a great ability to allow the student to self explore and find their own answer while at the same time being a guiding hand.
- Be awesome
- Stimulates creative thinking and thinking about the big picture while learning the specifics about biochemical processes.
- Professor White is very good at making sure we think about what we don't know, instead of what we do know, before researching or discussing an article. He is good at making connections between biology, chemistry, and all other sciences, as well as other courses through research techniques and general phenomena.
- Dr. White does a great job giving us direction- meaning, he prompts us and points us towards key concepts in scientific articles, while not giving away information. He plants questions and ideas as a basis for us to expand our knowledge and understanding.
- Professor White is very good at not giving answers, forcing us to search for a solution on our own and enhance our learning capabilities. He is also good at incorporating self expression and observation in the class. For instance, we must include "our voice" in any paper we write and are encouraged to be creative as well as scientific.
- I liked the quotes historical significance that was taught. I also liked the molecules drawn on the board at the beginning of class that related to the current article. I liked the sequential path through the articles that promoted deep and lasting understanding. I liked the group work to facilitate individual and cooperative learning.