CHEM-643, Intermediary Metabolism, Final Course Evaluation

Detailed Responses for CHEM643010 for 05F - Instructor WHITE, HAROLD B

Evaluation of the Instructor

4648 -I would recommend Dr. White as a teacher to other students

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	0	3	13	9	25 of 25	4.24	.66
Percent	0	0	12	52	36			

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

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	0	0	2	23	25 of 25	4.92	.28
Percent	0	0	0	8	92			

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

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	1	9	14	25 of 25	4.44	.77
Percent	0	4	4	36	56			

3427 -The instructor encouraged class participation.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	0	0	8	17	25 of 25	4.68	.48
Percent	0	0	0	32	68			

4333 -The instructor was helpful if you sought help outside of class. (Don't respond if you didn't.)

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	0	1	5	16	22 of 25	4.68	.57
Percent	0	0	4	22	72			

4334 -Overall, the instructor was effective in facilitating your learning of the material in this course.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	2	1	14	8	25 of 25	4.12	.83
Percent	0	8	4	56	32			

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	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	4	11	9	25 of 25	4.12	.83
Percent	0	4	16	44	36			

4332 -The instructor's lectures were well organized.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	2	8	14	25 of 25	4.4	.82
Percent	0	4	8	32	56			

Evaluation of Course

4650 - I am a

Scale text	Graduate Student	Undergraduate	Total
Total	10	15	25 of 25
Percent	40	60	

4651 - On average, I spent ___ hours a week outside of class on work related to CHEM-643.

Scale text	>12 hours/week	9-12 hours/week	6-9 hours/week	3-6 hours/week	<3 hours/week	Total
Total	4	3	8	9	1	25 of 25
Percent	16	12	32	36	4	

4629 - I found working on the homework problems in the first half of the course to be a valuable learning experience.

Scale text	Strongly disagree	Disagree	No opinion/Undecided	Agree	Strongly Agree	Total
Total	0	1	2	8	13	24 of 25
Percent	0	4	8	33	54	

4630 - I found working on case studies in the second half of the course to be a valuable learning experience.

Scale text	Strongly disagree	Disagree	No opinion/Undecided	Agree	Strongly agree	Total
Total	3	4	2	13	3	25 of 25
Percent	12	16	8	52	12	

4631 I learned more working on the homework problems than I did working on the case studies.

Scale text	Strongly disagree	Disagree	No Opinion/Undecided	Agree	Strongly agree	Total
Total	0	1	4	7	12	24 of 25
Percent	0	4	16	29	50	

4632 - Based on things I learned this semester, I would really like to learn more about intermediary metabolism.

Scale text	Strongly disagree	Disagree	No opinion/Undecided	Agree	Strongly agree	Total
Total	0	0	5	12	8	25 of 25
Percent	0	0	20	48	32	

4633 - Instead of case studies and group work in the second half of the course, Dr. White should have lectured for the whole semester.

Scale text	Strongly disagree	Disagree	No opinion/Undecided	Agree	Strongly agree	Total
Total	2	8	4	7	4	25 of 25
Percent	8	32	16	28	16	

3583 - The assignments I turned in were graded and returned promptly.

Scale text	Never	Rarely	Sometimes	Frequently	Always	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	0	0	1	23	24 of 25	4.96	.2
Percent	0	0	0	4	95			

4634 A considerable amount of the material in CHEM-643 reviewed material I had in other courses.

Scale text	Strongly disagree	Disagree	No opinion/Undecided	Agree	Strongly agree	Total
Total	3	8	6	7	1	25 of 25
Percent	12	32	24	28	4	

4635 - I personally learned a lot researching my term case study assignment.

Scale text	Strongly Disagree	Disagree	No opinion/Undecided	Agree	Strongly agree	Total
Total	0	0	4	11	9	24 of 25
Percent	0	0	16	45	37	

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

Scale text	Strongly disagree	Disagree	No opinion/Undecided	Agree	Strongly Agree	Total
Total	2	5	10	6	2	25 of 25
Percent	8	20	40	24	8	

4637 - My grades on the assignments reflected the skills and knowledge I have developed in this course.

Scale text	Strongly disagree	Disagree	No opinion/Undecided	Agree	Strongly agree	Total
Total	1	7	7	7	2	24 of 25
Percent	4	29	29	29	8	

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	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	4	3	14	4	25 of 25	3.72	.94
Percent	0	16	12	56	16			

4639 - I feel confident in my ability to learn what I need to know to understand issues in intermediary metabolism.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	1	18	5	25 of 25	4.08	.64
Percent	0	4	4	72	20			

4640 - I would prefer that the course had a PBL format for the entire course rather than just the last half.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	10	12	1	1	1	25 of 25	1.84	.99
Percent	40	48	4	4	4			

3602 - Wireless laptop computers are of little use in this course.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	9	9	4	2	1	25 of 25	2.08	1.12
Percent	36	36	16	8	4			

4642 - Other members of my group did their fair share.

Scale text	Hardly Ever	Occasionally	Sometimes	Frequently	Almost Always	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	3	1	1	10	10	25 of 25	3.92	1.32
Percent	12	4	4	40	40			

4643 - The instructions on writing a case study problem were insufficient guidance for me.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	3	11	6	3	1	24 of 25	2.5	1.02
Percent	12	45	25	12	4			

4644 - I would prefer if this class met in the late afternoon.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	6	7	4	4	4	25 of 25	2.72	1.43
Percent	24	28	16	16	16			

3599 I found the course web-site to be a useful resource.

Scale text	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Total	Mean	Std. Dev.
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	0	3	13	8	24 of 25	4.21	.66
Percent	0	0	12	54	33			

4645 I liked the structure of the quiz with an individual response followed by group response.

Scale text	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**	**Total**	**Mean**	**Std. Dev.**
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	4	10	10	25 of 25	4.16	.85
Percent	0	4	16	40	40			

4646 -I found the visits of Drs. Hanson and Lane to the class worthwhile.

Scale text	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**	**Total**	**Mean**	**Std. Dev.**
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	2	7	13	23 of 25	4.39	.84
Percent	0	4	8	30	56			

4647 I would recommend this class to other students.

Scale text	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**	**Total**	**Mean**	**Std. Dev.**
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	4	10	8	23 of 25	4.09	.85
Percent	0	4	17	43	34			

4331 -The course examinations emphasized understanding of the material.

Scale text	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**	**Total**	**Mean**	**Std. Dev.**
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	2	11	10	24 of 25	4.25	.79
Percent	0	4	8	45	41			

4329 -The course was well organized.

Scale text	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**	**Total**	**Mean**	**Std. Dev.**
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	1	2	13	9	25 of 25	4.2	.76
Percent	0	4	8	52	36			

4330 -The course textbook was very useful.

Scale text	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**	**Total**	**Mean**	**Std. Dev.**
Scale	**1**	**2**	**3**	**4**	**5**			
Total	0	0	11	5	5	21 of 25	3.71	.85
Percent	0	0	52	23	23			

CHEM-643, Intermediary Metabolism, Final Course Evaluation

Essay Responses for CHEM-643-010 for 05F - Instructor WHITE, HAROLD B

Question: Comment on the instructor.

I like the instructor. I do not like his methods for teaching, all the time.

Took an active role in teaching. You can tell he cares about his students. He demands a lot from them.

I have had this instructor for a while now and every year his knowledge, patience and personality keeps growing and is extremely helpful when trying to understand what is being done in class.

Dr. White knows what he's talking about, but he doesn't answer questions outright. He makes you find things out for yourself, and I find that I learn and retain material much better that way.

Prof. White is a very excellent teacher, he taught based on the problem learning, understanding, not memorizing things. His class is interesting, he spend time to prepare the class well. and also the case study let students involved in discussion, very effective.

Engaged the class in discussion. Focused more on the learning process as opposed to the final answer.

Knows a lot about the subject matter, but sometimes moves too fast, expecting that we all know it just as well. I did not feel adequately prepared for the case study assignments (i.e. the quiz and concept map).

Dr. White always presents an interesting perspective on topics which usually seem tedious. Problem based learning is a fantastic method to acquaint us with a new topic. We as student need to understand that work outside of the classroom is necessary for PBL to function at its best.

Dr. White is excellent in his approach to teaching. Not only does he offer lectures that are clear and concise, but he also is a pioneer in problem-based learning, which I find very helpful. I also like the assignments that go along with the class; they facilitate my learning very well and allow my grade to reflect my work ethnic rather than just a grade on an exam.

Good professor, I just felt like when I took chem342 I knew exactly what was expected of me, but in 643, especially for the PBL component, there was no real clear distinction on expectations. I realize that as students we are supposed to know, but I always find if the professor says I expect you to spend X hours after each class period in prepartion for the next class, I have a better understanding of what I need to do.

Dr. White is a very knowledgeable educator. I enjoyed his lectures and found his use of interesting facts entertaining.

I really had trouble with the group work towards the end of the semester. My group never really pulled through and I don’t like having to depend on other people to get my learning done. I learned SOOOO SOOO much in the beginning of the semester and really very little by the end. When you were teaching it was soo much better

I found lectures to be unorganized and I learned more by reading the book.

Dr. White is an incredible teacher. He is thoroughly knowledgeable in most areas of the material he teaches, but more importantly, can convey that knowledge easily to students. He's a demanding teacher and makes you work for everything, nothing is a freebee in his class. His teaching methods and advocacy of PBL will not appeal to everyone, which I will comment on under the course section.

Does a good job purveying the information but should teach how to start "learning on your own" and how to use this new skill on the case studies.

I really enjoyed the PBL part of the class, it kept me interested in the subject matter because I was actively participating.

Very organized. With broad brand knowledge of this subject as well as deep understanding.

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

Dr. White invokes thought and communicates the material at a decent pace (except when using the rare overheads). Dr. White lectures well - as opposed by his PBL techniques. I find his lecturing more effective than his PBL techniques in facilitating my learning of the subject matter.

Makes connections from one small idea, or reaction, to the grand scheme of things.

Dr. White relates seemingly unrelated topics using pattern recognition. He makes learning about biosynthesis more interesting because he teaches one synthesis and shows how other compounds are similarly synthesized.

Forces you to truly understand the concepts...not just memorize.

The problem sets were well written, and posed many difficult questions. Dr. White did a good job in going over the problem set if we still had questions after they were returned to us.

I am impressed by the way he teach Photosynthesis. After he give the case study, each group has to arise questions and also let student think about what kind of biochemical mechanism is involved in that case. in the following class, he give us the quiz, then group work by scratching. I think it is very good way to inspire the student's enthusiasm to study.

very well organized, and very knowledgeable of metabolism and biochemistry subjects

Easy to contact, great at giving extra help.

He has a good knowledge of metabolic pathways and encourages class participation.

He gets the class to participate in discussion. Vast knowledge of metabolism He is not afraid to go on tangents if they interest the class.

Dr. White is very good at encouraging the students to think about the deeper meanings of problems, and not just accept a superficial understanding.

Dr. White's style of teaching promotes independent learning.

Please se comments on instructor. He was also very easy to talk to and ask for advice on a number of subjects.

He really cares about his students and wants you to talk to him if you have a problem

Doesn't require memorization so much as focusing on connections between the different metabolic pathways.

His thorough knowledge of metabolism was useful in answering questions students had.

He always looks for understanding rather than simple knowledge

He knows a lot about the subject matter.

He: -Makes students think critically -Emphasizes understanding more so than memorization, although due to the nature of metabolism memorization to some extent is inevitable -Uses class time effectively. This section met 3 times/week for 50min each and every meeting was jam packed with material for the entirety -Encourages student participation which I find really builds the problem solving ability of students

- Writes clearly on the board - Writes challenging questions - Values the students time - Enjoys the material - Knowing the facts

Really makes you learn the material for yourself.

Prof. White taught this subject in a "research-oriented" way. He emphasis not only on knowledge but also on understanding. E.g. the analysis of raw data extract from first literature .I can get some real "research" training from this course.

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

A bit more lecture is all. I do not care for PBL.

A little less PBL. Maybe PBL for 1/3 of the year instead of 1/2.

more comprehensive pathways on more of the common cycles

Can not think of anything. It is a hard course and he can be a hard professor, but you learn a lot from him.

Assign specific readings

Maybe giving quiz on each part can improve the student's learning, and also can relate current research progress as much as possible.

Provide students with a little more structure during the case studies.

He needs to better facilitate the group learning process, and not expect so much out of small groups of random people with disparaging backgrounds in biochemistry.

Schedule more time (if possible) for a "wrap-up" that hits the points he wants us to remember about each case study and topic. I also think that the work load might be a little too high. The Concept Map was hurried, and the case study was due too early. The case study should be a final project. Maybe doing away with one or the other will lighten the load. I'm not sure the concept map increased learning as much as it did stress level.

Dr. White's lectures were very helpful in learning the material. While the PBL aspect of the class was helpful, however a lecture to wrap up each case study would help to cement the students' complete understanding.

The PBL style of learning is a good tool, but wastes time in class. The case studies might work better if they were completed outside of the regular lecture.

I think exams that are given in the class should be appropriate for the time given.

The first day of lecture, I think there needs to be given a really clear outline of what is expected of you in the course. Explain the problem sets and the lecture part of the course, then explain the PBL part of the course and also explain a little bit about what the case study is. Personally I had no idea what a case study was until I started the PBL component. I had an idea from looking through the syllabus and website but no verbal explanation.

The group part of the course didn't seem to go as well as it could have. Not sure what the answer is, perhaps more quizzes to ficus people's attention.

Never having been in a PBL class, I found it very difficult to adjust to the second half of the class. Normally, my work is extremely well versed and informative. But, I found it difficult to even begin to start project or assignments because of such vague directions. Once I had begun to research topics, I found that I ended up more confused. I didn't feel as if I had enough direction. My performance in this class is definitely not congruous to my potential. Feeling lost and confused about a class led to my gradual lack of motivation. As I sit here and write this evaluation, I'm disappointed in myself and the fact that I haven't learned anything substantial.

see previous statement. I love your teaching style when you teach. The homework that was assigned in the beginning of the semester was good and really got the point across if you did it.

I found that lectures were unorganized. It jumped around too much. It makes it difficult to take lecture notes in order to do well on the exam.

I felt that I learned more the first half of the semester when the course was structured as a lecture with weekly problem sets. That's more of my ideal kind of learning though. The potential is there to gain as much from PBL, but in a class such as this, there are several things working against everyone. First of all, everyone in the group really doesn't know each other so it is harder to work effectively at first due to some apprehension (this wouldn't be such a big deal except since there is only half a semester devoted to PBL, getting over that apprehension could take up a significant portion of that period). Secondly, class time. 50 minutes is a hard chunk of time to work as a PBL group effectively, perhaps if the course met twice a week for 1.5 hr it would not only give students more time in class as a group, but more time out of class to do work on their own so they have more to contribute to group meetings. The class could even be structured twice a week so that you retain the 50min group meeting and lecture the other half to maximize what the students gain from the PBL problems. The third thing that makes PBL harder is diversity of the students. There is a heavy mix of grads and undergrads, auditors and those taking it for credit. From my experience, the undergrads are at that point where they're taking GRE's and applying to schools and have so much else going on that it's just hard to devote the necessary time to PBL, while some of the auditors seem to think they don't have to contribute as much (don't get me wrong, lots are great). In choosing groups all of these factors need to be taken into account. Possibly try to pair everyone with at least one person they know and then try to achieve the necessary balance of grad/undergrad, credit/auditors from there. Overall (to retain PBL), I think the course would be most effectively organized twice a week for the 1.5 hr with exclusively lecture the first half of the semester as is done now, but retain a lecture component throughout the second half as well while integrating PBL problems. As for Dr. White's teaching style, I think it is fabulous and very effective at stimulating student learning. I can't think of much for him to change to be more effective himself, just the aforementioned about the course.

- As stated earlier, could teach students how to learn on their own more effectively. - Instead of checking out successful case studies, post them online (i.e. scan them in)

I definitely learned a lot during this class although sometimes I felt like I spent hours working on something that was only worth a couple points. I also felt that sometimes no matter how hard I tried I still did not receive a decent grade. I know you can not give points for a wrong answer but at the same time it was very discouraging to try so hard and not do well.

N/A

Question: Comment on the course.

I enjoy the subject matter of the course. The professor is very knowledgeable of the material and usually presents his lectures in an interesting way.

I like the lecture and the PBL, but there was a lot of group work. Groups can sometimes foster diffusion of responsibility so I think it would be better to get the entire case study and learn a little on our own before talking to the group at all.

Every Biochemistry student should be required to take this class. It is not fair that half of the biochem majors did not have to take it.

I liked the beginning of the course, when Dr. White lectured and we did problem sets outside of class.

I didn't particularly like the case studies in the second half of the course. Classes were too unstructured and I felt I didn't learn as much as I would have liked. Perhaps an outline on what students should know after the case study is completed would be helpful.

It was true to the title, as I learned a great deal about intermediary metabolism. I think it would be better if it was all lecture-based.

I think it is smart to have a month or so of lecture before getting into the case studies. Using the "themes of metabolism" is also a good way to drive home the learning issue.

Interesting course with aspects that greatly facilitate a understanding of the patterns in intermediary metabolism.

This is a very frustrating course to take as a non-major. I felt that my background, when compared to other students in the class was not strong, which made keeping up a struggle. A non-major course would be beneficial to have, if there are enough students to fill the seats.

I learned a lot about my body's functions during this course, as well as the applications of organic chemistry in our body. The metabolism of toxins and drugs also came of interest, as well as the place of many vitamins and minerals in our diet.

Decent course, covers a lot of material. Don't take it unless you are a hardcore biochemist.

I enjoyed the first part of the course immensely. Lectures were informative and interesting. I don't want to oppose PBL; however, I do not agree with its over implementation as a curriculum for study. I believe pbl is a great tool to be used in addition to lectures and/or assignments, but not as the main form of education. I spent too much time trying to educate myself and sitting in class for 50 minutes staring blankly at my group.

tough course but very useful

The course would have been a lot better if it was not half lecture and half PBL. It makes it difficult to get people to work together and learn the "right" material. It doesn’t seem fair that some groups would have been able to learn more because they had students that showed up to class, or students that actually wanted to learn the material. If you want everyone to get the information, then maybe we need to pick our own groups. I learned a lot more and actually enjoyed the homework problems. They were fun to try to figure out because as a group, that we picked to work with, we were able to work together and come up with a reasonable answer.

(see comment box previous to this) Also, I think that another speaker visiting the class might not hurt anything. I thoroughly enjoyed having the guest speakers come in and talk to us. To hear not only what they are doing now, but what they have been through and any insight they could provide was extremely fascinating. Is there a possibility that the class could have a discussion section that meets on seminar days so that there would be a preset block of time for seminar speakers to come? On seminar days that speakers are talking on an irrelevant topic you could have another outside speaker to come in and talk about the subject matter. I think that would be a great way to incorporate more diversity into the class if at all possible.

Great material.

Basically the same as ways to improve the course. Overall it was a great class and I learned a lot.

Very interesting. After taking this course, I get better preparation for research life. e.g. During the biochemistry seminar, I often feel I can understand the what the speaker was talking about just because I have taken this course.

Question: 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.

I think that the syllabus is very complete, clear and thorough.

I referred to the syllabus frequently, it was very helpful. The class schedule was helpful too, until we fell a little behind in mid-November. It might come with a warning: NOTICE- THIS CLASS REQUIRES AT LEAST 10 ADDITIONAL HOURS OF YOUR TIME EVERY WEEK

The syllabus was appropriate for the course, although some sections are outdated. Parts of the syllabus still talk about an oral final, which is no longer used.

The syllabus is good for me. it is linked with the topic and website, easy to follow.

Yes, the syllabus adequately covers the course.

I felt that the syllabus was fairly accurate, aside from the few assignments we couldn't do because of time constraints. Also, some of the links need to be updated on the homework assignments. A better description of PBL is necessary so that people who don't enjoy group work won't waste their time taking the course.

I think the syllabus was very hopeful, and I can't think of what else to add.

The course syllabus does a good job of outlining what the course is about and what is expected in the course.

The website is very busy. Perhaps a different organization technique would be useful. I found it time consuming to search out what I was looking to find whenever visiting the website. The syllabus is fine.

I Think that the syllabus clearly describes the course and what is expected out of each student.

The syllabus provided a lot of essential information for this course. I think it is extremely effective in explaining everything except for one thing, the case study. I feel that the case study is a large project and warrants explanation during class time from the professor. I found myself going every which direction with the case study until I talked to Dr. White in which case I realized that my focus was way to broad for this assignment. If it had been explained in class I feel like I would have had opportunities to ask questions initially rather than looking at the website 15 different times and all the case studies online trying to figure out what i needed to do.

The syllabus is more than adequate.

I think the syllabus provides a very accurate description of the class and its requirements

You should add an area that has the breakdown of the percentage grades for each portion of the class.

Personally, I do not like prose. Turn the syllabus into a bulleted outline for a more effective, less huge looking document.

I found the syllabus to be very helpful during the course. The only thing I might change is to have everything linked from the schedule. For example, the rubric for the concept map was grouped together with the information for the case study. However, the syllabus for CHEM 643 is definitely the most informative syllabus out of all of the classes I have taken at UD.

Yes, the syllabus is adequate. Everything in the syllabus is clear.

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

I'd like more lecture. I noticed that some of the PBL groups had members missing rather frequently. Some groups had a routine 5 members whereas some groups had as little as 2 members.

I like how things are tied together and to things that you wouldn't expect. I do not think that the midterm was a good indication of the knowledge obtained in the first half of the course

I liked my group, so that made everything easier. Improvement might be to move the time of day the class is. Other than that, this was a very productive, informative, and comfortable (yet challenging) course.

I learned a lot from this course, but honestly found it difficult to do a lot of outside work for the class with so little direction of where to look and what to learn. I would have preferred readings every so often, to focus my own learning.

I think there should be less time spent doing case studies. There should be more direction to the case studies that we actually do. I

found myself working less time out of class when I really should have been researching the case study problems. The problem was that I didn't really know what was expected of me or how in depth I should go. I think learning goals would be a big help at the end of the case study. Or perhaps a list that students make and present to the class.

I enjoyed the first half of the semester and felt I learned the most then. I dislike the PBL half of the class. One way to improve this would be to let the students choose their own groups. It's too hard depending on people you don't know to get their work done, and I found that even through the entire PBL half of the course, the work ethic of some group members never changed. Either get rid of the PBL half of the course, or refine it so that group work is much easier to accomplish. Also, you need to take into account that we're all taking multiple challenging courses, and sometimes it's impossible to get all the work done, especially with the pace we moved at towards the end of the semester. This is not conducive to quality group work, as well as having two big assignments (concept map and case study) due in the same week.

I feel as though a have a MUCH better overall understanding of metabolism, and believe that this course should be taken by all biochemistry grad students. It is a fundamental part of biochemistry, which all biochem students should have an understanding of.

The only aspect that I think could be improved is with the PBL case studies. While the group work does cause students to have to learn more on their own and facilitates a better understanding, in some cases there can still remain questions as to what aspects are truly important. I think this could be remedied by a wrap up lecture covering the topics of each case study.

I think the PBL portion of the course would be useful, had it been dispersed throughout the year, rather than the 2nd half of the course. Then it could be used to reinforce links between topics and facilitate learning prior to a lecture on a given topic.

I believe that this course is one of the best that I have taken here at the university. I'm very interested in the subject and enjoy learning about different applications of biochemistry. It's helped me make decisions about what I would like to do in grad school. I honestly can't think of any way to improve this course since I enjoyed it immensely.

This course overall was a decent course. In all honesty I liked the PBL approach in 342 much better then the half and half 643. It was hard to switch my learning methods midway through the semester. I am they type of student who in order to understand a concept needs to spend a lot of time with it. The problem sets took me 25 to 30 hours a week. I think the first one that was due after the inborn errors assignment I spent even longer on. That was fine though because when it came time for the test I felt I was prepared. I still ended up not doing so well on the exam. I feel that coming into the final I am not nearly as prepared as I was for the midterm b/c I didn't get as much out of the case studies as I did with the problem sets. A suggestion for improving this course would be to make the problem sets an out of classroom PBL component where groups are required to work a few hours a week on them together. I was overwhelmed with the case study assignment and don't really know how to suggest to improve that area. I am not a teacher and have never been trained as a teacher and really was a at a loss on how to compose teaching notes.

As mentioned previously, Dr. White is a knowledgeable professor. Sometimes, I would ask questions and receive useful feedback and other times I would receive confusing questions. My background in biochemistry was more than satisfactory, but I have been out of school for so long that I was unpracticed. The combination of having forgotten the material, completely new educational tools used, and my unfamiliarity with professional journals led to a negative experience in this course.

Although for me this was a tough class, I enjoyed it and took a lot of information home with me. I have a greater understanding of how my body reacts to the things I eat and i can change my habits accordingly.

I found the class difficult. You did not emphasize memorization, but I found that there was more to memorize in this class than most of my other classes. The lectures jumped around way too much. The PBL was not useful because my group never showed up, and they never did any outside research. I felt like the only one who actually cared about this class, and wanted to learn the material. Maybe it would have been better if we were allowed to pick our own groups, like we were allowed to work with other people for the homework problems. Or look at who was working together for the homework problems, if they were working well together, and put those people in a group. It was very disappointing that I felt like my group did not do anything, and my grades and learning suffered from that.

As stated before. Somehow work in a way to direct the students to a successful method of self-directed learning.

I know the second half of the course is up to us to learn the material but sometimes I felt like I didn’t know "what end was up". I was lost in the fact that I didn’t actually know what i needed to know. If just a little more structure was involved whether it be in direction form or a lecture, I think it would have benefited me a lot in learning the material.

I really love PBL classes. I feel that I can really expand my knowledge about a subject beyond what is in the book. I would only improve/suggest that the whole semester be in PBL format.

I would suggest that allowing students use textbook during exams.

Question: In a sentence or two, describe or characterize CHEM-643 to someone who might consider taking the course.

Dr. White presents certain aspects of metabolism to an intermediate depth to students through a combination of lecture/PBL.

A course that teaches metabolism without making you memorize the pathways. You will learn to recognize repeated patterns in multiple aspects of metabolism.

Takes a deeper look into the basic metabolism pathways/concepts then dives deep into specific areas of metabolism specifically geared towards a biochemists interest.

It's a good foundation of many important aspects of metabolism.

Chem643 cover the intermediary metabolism. the way Prof. White lectured and organized the class is very very helpful for understanding and learning, the problem set and case studies topic is related metabolism with diseases. it is worth to take it and I strongly recommend you to take it.

You're going to learn a lot of pathways and how they interact with each other. The course isn't about memorizing, it's about understanding.

It's a challenging course which focuses on a conceptual understanding of metabolism rather than memorization. The first half of the course was good, and writing the case study was enjoyable; however, the PBL half of the class is painful.

This course illustratse the themes of metabolism by introduction of common pathways. Then extends what you have learned with these common pathways to more complex and interest systems during the PBL section of the course.

CHEM643 covers topics in intermediary metabolism, with the first part of the semester being lecture and the second part being PBL group work. The class highly stresses pattern recognition and putting the pieces together to understand the bigger picture.

As a non-major, chem643 will make you feel frustrated more often than looking forward to learning. I would recommend seeking Dr. White out whenever an issue arises, and making an effort to meet with your group outside of class to complete the homework assignments.

Intermediary Metabolism talks about the chemistry common metabolic processes that keep us alive. It also describes how our amino acids are synthesized, as well as answers our questions to what happens once we ingest food, vitamins, minerals, and toxins.

You learn about a lot of different topics in metabolism. If you are a decent biochem student and ready to dedicate your life to biochemistry this is the perfect course for you. But if you are doing biochem as an undergraduate degree with plans to go into other areas in graduate school or your career you may find it hard to really get highly involved in this class. I fall under the latter category and found myself extremely out of sorts in this class because its obvious most other students are dedicated to this topic and really interested and motivated by the material. I had to force myself to sit down and try and get into it.

If you like PBL and are high motivated, take the class. If you rather be educated through lectures that help you learn aurally and visually, don't take the class.

This class is about learning how to learn about intermediary metabolism.

The class is a tough class but you will learn a great deal about metabolism. The topics of this class can help you understand what happens in your own body and why they do.

CHEM 643 is a metabolism class that looks for patterns rather than memorization.

Great material, the case studies are kind of bland and Dr. White doesn't really explain what you need to do with them on your own time. If you've had metabolism or plant biology before you are not going to get too much out of the case studies.

It’s a lot of work but if you have the time and can handle the work load you should definitely take the class.

CHEM 643 might require more effort than taking another 600 level class, but it is worthwhile because you really retain/understand the information presented in the class.

It is very instructive for a graduate major in biochemistry, one can get the training how to handle complex problem, how to locate literature, how to connect class room knowledge to real problem in biochemistry.