



UNIVERSITY OF TORONTO

PHARMACOLOGY & TOXICOLOGY

STUDENT ASSOCIATION

Course Commentary 2014-2015

A guide to surviving pharmacology & toxicology!

Courses Included

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This Course Commentary is a compilation of course-specific tips from previous students. For the numerical breakdown of the course evaluations, please check out the "Faculty of Arts & Science Course Evaluations Feedback" link on <https://portal.utoronto.ca>. Please contact other student unions regards to courses under other codes.

PCL201

Course evaluation comments:

This course requires conceptual understanding as well as application of those concepts to calculations. The workload for the course can become heavy, especially during the later parts of the course, where memorization and attention to detail become crucial in achieving success on tests. Thus, it is important to attend every lecture and keep up with the material, doing daily review of the lecture notes.

Quotes and Tips from upper years:

Tips suggested by students who have taken the course include: know the examples mentioned in lecture very well (including mechanisms and enzymes), do the practice problems/past tests, and pay attention to the graphs. Furthermore, it is an excellent idea to make good use of office hours and ask TAs for help when needed. Some students found it useful to make handwritten notes before the test as it aided in their memorization, whereas others chose to study off the lecture slides provided (with additional notes written on them). Overall, this course is intriguing but does require effort in order to do well.

PCL302

Course evaluation comments:

A wide range of topics is covered in this course, and in detail. Recording lectures as well as making flowcharts to understand mechanisms was heavily recommended. Students found that knowing the diagrams presented in lecture is essential for success on the midterms. The departmental textbook (out of print, but can be bought used) is an excellent source for clarification and additional information.

Quotes and Tips from upper years:

Listen to the recordings like crazy. This course is a bit heavy on material, so it would be worthwhile record lectures (and don't fall behind).

Try making flowcharts to organize the information. It should make understanding easier and provide a visualization of the material.

When you're memorizing material, have some scrap paper around so you can doodle/scribble down concepts or drug names.

Do the past exams well in advance.

Review all of the slides carefully - especially diagrams! If you know the slides the midterms are relatively simple.

Practice on past tests and think about where the marks are coming from in an answer, and get to the point in your answers because the questions are specific in what they are looking for.

It also helps to review your answers and check with the TA or the professor once you get your mid-term back.

Follow the instructions and answer the questions thoroughly when doing the final writing assignment.

PCL362

Course evaluation comments:

This course demands that the student be able to graphically reproduce and explain pathways in detail, and to recall example studies. Students emphasized the importance of memorization, as well as thorough reviewing. Students also recommended to include as many details as possible when answering test questions.

Quotes and Tips from upper years:

Don't fall asleep during the lecture. Write anything you know to answer questions on exams.

Much of this course is based on memorization, so practice writing down concepts and drawing diagrams. Record lecture and make sure you've got every word down.

It would be a good idea to look at previous exams as they are often similar in concept.

Attend the review sessions. The TAs will explain exactly what they're looking for and you can keep it in mind for next time

Review ALL of the material for the midterm. They purposefully make the questions different from previous years to avoid people knowing the answers. The questions are really simple because the concepts flow into one another, just be sure to review everything and make sure you memorize the pathways!

Especially for the first term test, practice writing out the pathways (complete with all names of enzymes!) until you can draw them without having to stop to think. Be as redundant as possible when answering questions on midterm/exam i.e. if asked to draw a diagram of a pathway and write an explanation, everything in the diagram must be fully labeled, and every step in the diagram must be present in the written explanation. Again: don't be afraid to BE REDUNDANT.

PCL376

Course evaluation comments:

This course was slow in the beginning and reviewed a lot of simple statistical concepts, but some students thought it was a bit rushed at the end when the class moved on to more complicated statistical tests and theory. Students found the required textbook could be improved to be clearer on some concepts. STA220 or other previous statistics-related courses helped with a lot of concepts taught in this course.

Quotes and Tips from upper years:

Go to office hours; many students found the professor very helpful outside of class.

Make sure you understand the theory and don't just plug in numbers into formulas.

Tests are not too difficult but the wording is sometimes tricky. Dr. Nobrega is often open to reasonable arguments to midterm answers.

It is useful to look up other online sources, such as Laerd statistics, or to Google the concept to understand the theory and application.

Do lots of practice questions and understand the reasoning behind all the online quiz questions and review them before the midterms.

PCL389

Course evaluation comments:

Students enjoyed the interactive nature of the lectures as well as the heavy emphasis for critical thinking in this course. They found that the small class size lent to an intimate atmosphere that was conducive for learning. Many found the class debates to be very fun and educational. As well, students appreciated the ability to practice their presentation skills in this course.

Students find that guest lectures are interesting, and the wide range of material is good, although there were also comments that due to the variety of topics covered, the material became too disjointed. As well, due to the interactive nature of the class, some students had difficulty taking down notes for certain lectures because they were focused on actively participating in the discussion.

Additionally, students found the small writing assignments (reflection papers) to be challenging. Students found the service learning portion of the course to be a great meaningful learning experience.

Quotes and Tips from upper years:

Go to class and participate in the discussion - this is a common tip shared by almost all respondents to our survey. Participation constitutes a portion of the overall evaluation, therefore it is highly encouraged. Do not be afraid of voicing out your opinion. There is no right or wrong answer, by participating in discussions, you not only get participation marks, but also get to put your thoughts into perspective.

Organize and plan your debate with your team early and practice together. There are lots of opportunities to do well in this course.

The small reflections are fun to do, and use the constructive criticism provided by Dr. Arnot and the TA to improve your final copy. Some students found it helpful to jot down thoughts for these assignments whenever it comes to mind (even on the job!). Many people struggled with the reflection assignment; don't be afraid to talk to Dr. Arnot or the TA about it!

PCL402

Course evaluation comments:

Students found that preparedness was important in this course. Participation in class discussions and reading the assigned readings before class were vital.

Quotes and Tips from upper years:

Go to after-class tutorials for important pointers regarding assignments.

Make sure all relevant information is included to each subsection in the written assignments. In addition, your works should be very clean and professional.

PCL469

Course evaluation comments:

Some students found that lessons do not flow very well from lecturer to lecturer but many enjoyed the variety of the course material. As well, some students felt that the amount of material in each lecture could be overwhelming and that it is very important to keep up with the coursework.

Quotes and Tips from upper years:

Take good notes on the readings because they will be on the final exam. Take time to do the writings. Read the regulations, write, read the regulations again, review. Try to make tables or flowcharts to help summarize and connect the information and do not leave things to the last minute – students found it helpful to keep up with the material every week, because in the end it ends up being a lot to memorize. Skim/read over material after every lecture! It is definitely worth recording lectures. Some students put the lectures on their iPod so that they could listen to them when they went on runs or before bed or make cue cards for the drugs that they would memorize while waiting for the subway etc.

Choose your writing assignment topic carefully and get started early. The written assignments are marked pretty hard, so finishing early and giving yourself lots of time to edit is a good idea. Be sure to put a lot of effort into SGS and the assignments/presentations as they are a HUGE mark booster and really straightforward. Don't be shy in the small group sessions.

Get involved in the small group sessions and do not forget the online quizzes. One course you definitely don't want to cram for - keep up with your lectures and review ahead of time.

Do the past tests. Although there may be no answer key, compare with classmates and discuss. Be sure to actually understand the material as part marks may be awarded if you're able to rationalize your short answers on tests. One way of ensuring this is to actively teach a concept to someone or even to yourself.

PCL366 + (PCL461/465)

Course evaluation comments:

Learning how to write a lab report is the most important aspect of this course. However, some students wished for expectations for lab reports to be stated more clearly and to be given more specific criteria.

Students thought it was an excellent opportunity to gain lab experience and to practice working in groups. Exams are fair, but may be time-consuming, so it is generally advised to work fast and smart.

Quotes and Tips from upper years:

Prepare well before labs so that you can execute the procedure in a timely manner and start writing reports early.

Before the first lab report, Dr. Hamadani will give her expectations of lab reports, don't violate any expectations (i.e page limit, font size, margins) and write what is expected (i.e stick to important information, be concise).

Don't worry if you don't as well on the first lab report, but be sure to learn from your mistakes.

Be sure to ask for help from the TAs - they are very helpful!

PCL472/474

Quotes and Tips from upper years:

Communication is key – the purpose of this course is not only to explore topics in Pharmacology, but also to learn about what it's like to be a researcher. Before starting in a lab it is important to outline the time commitments your professor expects you to meet – this is especially important if you have to balance research and a full course load. Keeping your professor updated on the progress of your experiment, typically through weekly meetings, is important as it offers the opportunity to gain valuable insight as to how to improve your experiment. Don't be afraid to ask for help from your peers in the lab as well – post docs, graduate students, other undergraduate students etc. Lastly, this project course is independent research. It is your responsibility to do sufficient background research on your topic!

How to Choose a Prof:

Apply to labs that pique your interests. You don't want to dedicate a whole year to doing work you find mundane or boring! Read about the professor's current research and a few of their publications to see if their work interests you. It is also a good idea to talk to current/past students to determine what it is like to work with that professor. Some are more hands on than others, which is important depending on your experience level. It is important to outline the professor's expectations as well to ensure that you can meet their expected time and work commitments. Lastly, it is important to start looking for a supervisor early – especially if there is a specific project you want to do!

Research Comments Summer Versus Fall:

The decision to do a project in the summer opposed to the fall depends on the project you're doing and the experience you want to glean from the course. The summer allows you to dedicate more time to your project. Some students feel they have more time to dedicate to the project and the experience emulates what it is like to be a researcher in a university lab. Students who have taken the project course in the fall, however, have noted that having the full year to work on a project can be more advantageous as you have more time to gain data. This can be useful for longitudinal projects that require you to capture data at several time points.

One downside to taking the course in the summer was said to be the short time period. If your project requires you to collect data over time then a summer project may be difficult, as you would have to condense your experiment. A downside to doing a project in the fall would be that the presentation and report deadline coincide with the final reports and exams from other courses making the workload significantly higher.

PCL473

Course evaluation comments:

Students found the atmosphere of the course lectures to be a good learning atmosphere and conducive for asking questions.

Some students found the level of depth to be too superficial for many of the topics covered in class. However, many also enjoyed having to learn various different aspects of toxicology.

Some students found the rubric used to mark midterms to be too unyielding and harsh. They believe that the expectations for each short answer question were not clear from the given questions. The questions were found to be very brief leaving students limited information regarding how to approach the question. Many also found the structure of the tests to be geared towards testing your ability to simply memorize facts instead of truly understanding and applying the lessons learned.

Some students found that the course topics overlapped greatly with many other 400-level Toxicology courses.

As well, students found expectations for the written assignments to be too vague.

Quotes and Tips from upper years:

Take good notes and perhaps record the lectures. Put time into memorization. Take your time writing the reviews - choose a chemical you like and can write a lot about.

The forensic toxicology section will require background research on your part outside of everything that was in lecture.

A final exam strategy is to go over all the material, then write detailed answers to past exam questions with your notes as an aid.

PCL475

Course evaluation comments:

This course explores pathologies in the CNS and the mechanism of action of drugs used in the CNS. Regular review is necessary to keep up with a heavy material, however students found the instructor is clear about which material will be evaluated.

Quotes and Tips from upper years:

Review the material regularly as there is a lot of material to be covered and the 3 hours of weekly lecture plus 1 hour tutorial can really build up if you fall behind on the review.

However, this course was found to be relatively straightforward as Dr. Burnham is a very organized and coherent lecturer, and he is also very clear about the information that you should learn and those that are more "for interest/your information only".

PCL481

Course evaluation comments:

The lectures cover a broad spectrum of topics and moves very quickly. The lectures are only two hours so it is important that you print out the slides and take notes effectively. Recording lectures is highly recommended and it is important to regularly review material to ensure that you learn all of the topics.

This course builds on knowledge from PCL302 so having those notes at hand supplements a portion of this lecture material as well.

Quotes and Tips from upper years:

Learn the concepts well and pay particular attention to the first four lectures. Know all of the details of the receptor mechanism diagrams unless told otherwise. Understand the big concepts covered in lecture as well as the fine details.

Learn to draw the modular domains and pathways of the nuclear receptors.

Attend class! Lecture recordings are not sufficient – you need to supplement your lecture notes with the recording.

Give yourself ample time to study for tests, as a lot of material will be covered.

Start working on the review paper and presentation far ahead as they are very time intensive.

PCL491

***NOTE: This course is not offered in the 2015-2016 school year*

Course evaluation comments:

Students found the comprehensive literature reviews and well-rounded discussion sections in the lab was fair and allowed them to do well in the course. There is no page limit for the discussion so while it is advisable to be concise and to the point, there is less stress on skipping information and being too brief.