ASC Tutor Tips for Science students

Available online at: https://ufv.ca/asc/student-resources/

Tips for Doing Well in Science Courses at UFV

1. Connect with your instructor

- Instructors want to see you! Ask your instructors how you can do well on your assignments or exams. Most instructors will give you helpful strategies, and resources such as textbooks, articles, and knowledge that you may not find on the internet or library. You are welcome to socialize a bit as well!
- Connect in person or online: visit during your instructor's office hours rather than simply emailing. If their designated office hours do not work with your schedule; most instructors are very willing to arrange another time to meet.
- Never hesitate to ask a question. No question is small or "stupid." Often, you will end up with more in-depth information than you could have hoped for.
- Write specific and concrete questions. These can aide the instructor to determine the most effective way to explain or provide resources for you to gain clarification. Writing queries down beforehand can also quell anxiety. Be certain to prioritize the areas of curiosity to focus on within the specific time period.
- Get to know more about their expertise; for example, ask them about their research. This information can also be found on your program's faculty page on the UFV website. Instructors regularly take on research students, or associate with groups and organizations that may lead to new opportunities and experiences.

2. Watch videos of lab procedures before the lab session

- Preparation allows you to make effective use of the lab time and resources. This will give you time to engage with the lab instructor if problems develop, or if outcomes do not replicate demonstration results.
- Procedures must be systematically undertaken without shortcuts. Additional preparation can help you avoid unexpected time constraints.

3. Never underestimate the importance of units

- 57 is just a number, but what does it mean? Perhaps 57 km? Or 57 chocolate almonds? What about 57 M or 57 m/s? Keeping track of your units as you solve a problem allows you the opportunity to see a variety of results. If your answer is a distance and you end up with units of m/s, you will automatically know that you are missing a step.

4. Write your own summaries of lectures

- It is scientifically proven that writing information down in your own words helps you remember the material much better. Rewriting notes can also be more memorable than passively reading.
- Putting the material into your own words allows your brain to process the information. This means you will likely be able to identify whether you truly understand a concept or not.

5. Engage with the course material – find a connection that speaks to you.

- Be curious, stay positive and find ways to involve yourself with the course concepts. Think about what intrigues you! How can this fuel you to probe and apply yourself to the lab and course content?
- Many concepts examined in the sciences often connect to real-life situations, experiences or scenarios. Think of how these concepts can be applied. Thinking from a unique perspective is invaluable for understanding physics concepts.
- Try your own experiments, if time and resources permit – or find interesting videos on theories and methods to help plan your time later.

6. Create a study group

- Talking to classmates about concepts or explaining theories to friends will further aide your comprehension of the subject.
- When engaging in discussions, also ask questions of course material. Especially when you are explaining this to someone who has less knowledge about the topic. You could ask questions like: “What are your views about this?” “Does anyone need more background information about this point?”

7. Start your research as soon as you know about a paper

- This will help you decide on your topics and thesis, even if you don’t have any solid ideas for your paper yet. Try mind-mapping to organize your thoughts.
- Starting early also enables you to find a greater number of reliable sources, which will help you write a more thorough paper.

8. Research topics and definitions before class to familiarize yourself with the material.

- Avoid ignoring words that you do not understand. Perhaps you read the word “anoikis” in your notes. Not much context is given, and you may be tempted to move on to the next paragraph. By doing this, however, how much are you really learning? All that is separating you from the definition is a flip to the glossary of your textbook or a quick search online.
- There are words you recognize, words you have heard before, and words that are completely new to you. Mastering science is a lot like mastering a new language – it requires repetition, effort, and consistency.
- Don’t be embarrassed if you don’t know everything – you are a student, after all! If you feel overwhelmed, remember: review the basics first; and then apply the new concepts.