**Mathematics 506 – Science (SN) Option**

**Course Syllabus 2021-22**

**Instructor:** Dr. Tasha Ausman

**Room:** 230

**Office Hours and Remediation:** Room 252 at lunch

**Email:** tausman@wqsb.qc.ca

**Website:** missausman.weebly.com

**Course Description**

Mathematics 506 SN is for students who have a desire to pursue upper-level mathematics. It is an advanced course designed for students who are continuing in post-secondary mathematics or sciences. The course requires extremely strong mathematics skills. To do well in the course, we will refine your problem solving skills by practicing many questions and applying known principles. The course moves quickly and therefore there is a *considerable amount of practice required*. If you are stuck on a concept, please do not wait. See me right away.

**Course Outline (tentative)**

Term 1: Functions

Exponential Functions

Logarithmic Functions

Trigonometric Identities and Functions

Term 2: Optimization

Conics

Vectors

Year-End Review

**Texts and Required Readings**

There is no textbook for this course. Rather, I will provide worksheets and pages to complete. Additional material can be found on my website.

**Course Evaluation & Assessment:**

As in previous mathematics courses, the competencies are C1 (Situational Problem) and C2 (Theory and Application). These are weighted 30% (C1) and 70% (C2) within each term.

The two-term model still applies from the 2020-2021 school year due to the ongoing health pandemic. The terms are weighted 40% Term 1 and 60% Term 2. However, the final exam is 20% of the year, which is the same as the breakdown outlined below.

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| --- | --- | --- | --- |
| **Term 1** | **Term 2** | **Final Exam** | **Total** |
| **40%** | **40%** | **20%** | **100%** |

**Missing a Test or Quiz**

Tests must be written on the scheduled day. If you know ahead of time that you will be away, alternative arrangements must be made before the test date. Missed tests will be written on your own time at lunch in **Room 252**.

**Late Policy**

All late arrivals will be recorded and detentions are served with the office.

**Absences**

You are responsible for catching up on class notes and completing any assignments, tests or quizzes for which you were absent (no grade exemptions will be given for missed work). If you are aware of your absence in advance, please let me know.

**Class Procedures**We all must respect one another. My foremost request is that you do not talk while I am speaking – whether it is during attendance or when I am at the front of the room speaking to you. No acts or words involving sexism, racism, or homophobia will be tolerated in our class.

Your responsibilities include bringing paper and pencil to class, *every* class. You need your **math binder, graph paper, pencil, eraser, calculator, and workbook pages**. I recommend a **bound notebook** for notes, rather than loose paper. If you do not have one, I can provide one for you. As well, you must hand in all assignments on time. While I am somewhat flexible about late assignments due to illness or other excused absences, I expect you to see me the day you return from illness to get your missed work. You need to be caught up at all times because you will get behind very quickly.  
  
**Plagiarism**It is entirely possible to plagiarize in math. Many students will copy another’s answers for assessments prior to class. I encourage group work and will be offering formative assessments. However, for summative work such as tests, independent assignments, or other individual work, *if you cheat, I will refer you to the administration for disciplinary action.* The integrity of everyone’s individual grade is important, especially as this course is needed for both high school graduation and post-secondary admission.

I am sure we will have an excellent time in MSC 506.

Study hard!