

Norkam Senior High
Pre-Calculus 12

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Materials Required

1. Lined Paper
2. Pencil, pen, ruler and highlighter
3. Scientific calculator
4. Workbook/Assignment Sheets

Expectations

1. Respect and maintain the safety of everyone around you in class. (This includes the teacher, classmates, and property in the classroom)
2. Always be on time and prepared for class. This means you must come to class equipped with materials. Being late without a legitimate reason will bear consequences.
3. You may only leave the classroom if you have a **VALID** reason. Remain in your seats until the bell goes. No one is allowed out of the classroom when there are fifteen or less minutes left till the end of the block.
4. All assignments must be completed by the specified deadlines. Failure to do so will result in contact with your parent/guardian, and Academic Intervention will be arranged.
5. Tests or quizzes missed to unforeseen circumstances will be made up for and written on the first day back to school. If any assignment or test is skipped, you will receive a zero.
6. Take pride in your own work. Do not copy or allow others to copy your work. If you copy the work of others or let someone copy your work, affected parties will receive a zero. **Plagiarism is not acceptable.**

Technology can only be used where appropriate (e.g. when INSTRUCTED to be used for research) Any INAPPROPRIATE use of technology such as, and not limited to, texting, calling, the use of social media, and picture-taking will NOT be tolerated. If breached, you will be given a warning the first time. The second time this happens, your phone will be confiscated and surrendered to the office, where the issue will be resolved at the end of the day.

Assessment

Assessment will be carried out in various ways: assignments, quizzes, chapter tests, a mid-term exam, and a final exam. Your final grade is a **CUMULATIVE** mark. This means the mark is not refreshed at the beginning of a new unit.

If you receive less than 50% on an assessment (tests or quizzes), you may request a rewrite. The rewrite will not be the same test, and the request may be denied if it is evident that the poor mark is due to unsatisfactory effort in the course or multiple unexcused absences. If you feel like you need extra help outside of classroom time, set up a lunch session with me.

Effort Mark (G, S, N)

ALL your actions constitute your effort mark. This includes preparedness, punctuality, attitude, participation, attention, effort in group activities, behaviour, meeting assignment deadlines and class attendance. Your effort mark will begin at an S, and may change either positively or negatively over the semester, based on your actions.

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Pre-Calculus 12

Core Competencies

Core Competencies will be integrated into your academic curriculum. The following are your core competencies:

1. **Communication:** The Communication competency encompasses the knowledge, skills, processes, and dispositions we associate with interactions with others. Through their communication, students acquire, develop, and transform ideas and information, and make connections with others to share their ideas, express their individuality, further their learning, and get things done. The communication competency is fundamental to finding satisfaction, purpose, and joy.
2. **Thinking:** The Thinking competency encompasses the knowledge, skills and processes we associate with intellectual development. It is through their competency as thinkers that students take subject-specific concepts and content and transform them into a new understanding. Thinking competence includes specific thinking skills as well as habits of mind, and metacognitive awareness. These are used to process information from a variety of sources, including thoughts and feelings that arise from the subconscious and unconscious mind and from embodied cognition, to create new understandings.
3. **Personal and Social:** The Personal and Social competency is the set of abilities that relate to students' identity in the world, both as individuals and as members of their community and society. Personal and social competency encompasses what students need to thrive as individuals, to understand and care about themselves and others, and to find and achieve their purposes in the world.

Grade Breakdown

The following is the breakdown of how your final grade will be computed:

Assignment Quizzes: 10%

Section Quizzes: 20%

End of Chapter Tests: 40%

Mid-Term Exam: 15%

Final-Term Exam: 15%

NORKAM SECONDARY SCHOOL
Pre-Calculus 12

Textbooks: Theory and Problems for Pre-Calculus 12 - Mickelson

Assessment: Students will be expected to complete homework and assignments, as well as paper and pencil tests. The primary use of the homework and assignments are for the student & teacher to gauge their level of understanding of course material prior to a test and for practise. Paper and pencil tests are conducted to determine your level of understanding. Students will be expected to generally meet the held expectations of the Pre-Calculus 12 course – see Pre-Calculus 12 Government of BC, Ministry of Education for more information of the listing of the course objectives.

Evaluation: Letter grades are assigned based upon provincial regulations.

Materials: Students require a graphing calculator (TI 83+, TI84, TI84+ is preferred), graph paper and the usual school supplies, in addition a spiral back notebook is recommended but not required.

Studying and Homework: Students have daily assignments; students are encouraged to use the available review book for extra problems and studying for chapter tests, midterm exams, and the final exam. Students should be doing **at least 50 minutes** studying/homework per night to be successful in the course.

Extra Assistance: Your classroom teacher is available most days outside of class time {mornings, lunch hour, after school} for help. It is the student's responsibility to seek help when it is needed. Our school website will have a link to our math 12 notes {nkss.sd73.bc.ca}. Once there, you can login and download missed notes.

Evaluation (Each chapter is comprised of):

Chapter Tests and Quizzes	80-90%
Homework and Assignments	10-20%
Total (for each unit)	100%

Note 1: Students have the opportunity to prove that they have learned the prescribed learning outcomes of this course at many points through the year (during the unit, end of unit, Midterm, and Final Exam).

Topics and Ordering – Note: this is an outline only, the ordering of the topics presented is at the teacher's discretion

- Chapter 1 – Series and Sequences
- Chapter 2 – Transformations
- Chapter 3 – Polynomials
- Chapter 4 – Radicals and Rational Functions
- Chapter 5 – Logarithms
- Chapter 6 – Graphing Trigonometric Functions
- Chapter 7 – Trigonometric Equations and Identities
- Chapter 8 – Conics
- Mid-Term Exam – 20% of year
- Final Exam – 25% of year

Note:

As this is a pre-university course, students are to ensure their cell phones are off, and any other personal electronic devices are not in use during instructional time.

Big Ideas:

- Many functions are related through inverse operations.
- Analyzing the characteristics of functions allows us to solve equations, and model and understand relationships.
- Transformations of shapes extend to functions in all of their representations.
- Geometrical thinking and visualization can be used to explore conics and functions.

Curricular Competencies:**Reasoning and analyzing**

- Use reasoning and logic to analyze and apply mathematical ideas.
- Estimate reasonably.
- Demonstrate fluent and flexible thinking of number.
- Use tools or technology to analyze relationships and test conjectures.
- Model mathematics in contextualized experiences.

Understanding and solving

- Develop, demonstrate, and apply conceptual understanding of mathematical ideas.
- Visualize to explore and illustrate mathematical concepts and relationships.
- Apply flexible strategies to solve problems in both abstract and contextualized situations.
- Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures.

Communicating and representing

- Communicate mathematical thinking in many ways.
- Use mathematical vocabulary and language to contribute to mathematical discussions.
- Represent mathematical ideas in a variety of ways.
- Explain and justify mathematical ideas.

Connecting and reflecting

- Reflect on mathematical thinking.
- Use mathematics to support personal choices.
- Connect mathematical concepts to each other and to other areas and personal interests.
- Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts.