

MATH 40SP (PRE-CALCULUS)

Course Outline

Instructor: Mrs. Larson, clarson@svsd.ca

204-734-4511 x 2207

Math 40SP is the last of the Pre-Calculus courses which were designed to prepare you to take university math courses such as Calculus, Linear Algebra, Statistics, etc. It will be a challenging, rigorous course, culminating with a provincial examination of your high school math skills.

The course contains the following units:

Trigonometric functions --- a review of past trigonometry plus new topics such as the unit circle, radian measure, trig values in all quadrants, and solving trig equations

Transformations --- how altering equations of functions alters the graph of that function and vice versa

Trigonometric Identities --- advanced trig relationships and the formal proof of trig identities and trig values

Exponents and Logarithms --- review of all rules of exponents and radicals, introduction of logarithms, solving radical/exponential/logarithmic equations and problems that use each of these types of equations

Permutations, Combinations, and Binomial Expansion Theorem --- solving problems involving permutations (arrangements), combinations (different sets), and the expansion of any binomial to any power

Polynomial, Rational and Radical Graphing---graphing polynomials up to degree five, division of polynomials (including synthetic division), graphing rational functions, and graphing of radical functions

Composite Functions and Operations on Functions---evaluating and graphing composite functions, adding, subtracting, multiplying and dividing two functions

EVALUATION:

Unit Tests	70%
Assignments, Quizzes, etc.	10%
Final Provincial Exam Jan. 28, 2027	20%

All unit tests may be cumulative to the beginning of the course.

****Students will be given the opportunity to re-do one (1) summative assessment over the course of the semester. Additional re-do opportunities only exist at the discretion of the instructor. The Final Exam cannot be rewritten, however.**

Missing Tests:

Any student missing an important summative assessment like a test may be required to be assessed with an alternate and possibly more challenging assessment (Rationale: student has created an advantage by having more time to prepare and/or discuss assessment items).

Missing an assessment with parental permission, illness, field trip, court appearance, etc. may still warrant an alternate assessment as per the instructor.

Final Examination:

If a student's final exam mark is higher than their term mark, the final exam weighting will be considered at 100%. That is, if a student scores higher on the final exam than their term mark, the final exam score becomes their final course grade. This will NOT be considered in reverse (i.e. the final exam will hold a minimum respective weight as per the course outline).

MATERIALS:

Loose leaf paper, pencils, erasers, calculator (optional), geometry set (optional), graph paper (optional)

ATTENDANCE:

Students are responsible for completing all work missed while absent. It is your responsibility to find out what work was missed and to complete it. This applies to school-sponsored activities too. If you anticipate an absence (field trip, sports event, etc.), please request the assignment(s) prior to the absence. Tests will be made up as arranged with the instructor, however, you can expect to receive a different test than what the class wrote on the day of the evaluation.

CLASSROOM EXPECTATIONS:

- Respect one another, and the classroom.
- Be on time.
- Be prepared for class.
- Put your cell phone, etc. away during class time.
- uphold the school conduct code of Learning, Respect, Responsibility, and Safety

Your performance in this course will directly correlate with the amount of practice that you put into it. Just as in sports or music or drama, the more you practice, the better you get, so also it is with solving math problems. The homework is your opportunity to practice the concepts taught that day in class. It is imperative that you do your homework, and reflect on what concepts you understand and which concepts you do not fully understand. It is your responsibility to bring your questions to class and ask for assistance with concepts not understood. As you consider preparing for the final exam, old exam

questions are available on the web for your perusal at www.math30s.com. Also, the answer key for the Pearson text is available at mrscolpittswss.weebly.com/pre-calculus-12-solutions.html.

INTERVENTIONS:

- I will work with students over the lunch hour to increase learning.
- I will change classroom procedures/teaching styles/and assessments as needed to assist students with their learning. I will expect you to communicate your needs and concerns with me so that we can work together.
- I will not allow you to participate in extra-curricular activities if your course mark is below 50%.
- I will ask for a parent meeting if learning is not occurring.

LEARNING BEHAVIOURS:

The following learning behaviours are assessed during formal reporting times and are recorded on the report card. They are Personal Management Skills, Active Participation in Learning, and Social Responsibility.

Digital Citizenship:

Use of personal devices is **not allowed during class time**. As mandated by the province, **Grade 9 to 12 students: banned from cell phone use during class time on campus and off campus but are permitted to responsible use of cell phones during break times and lunch.** I have provided you with a safe place for your device at the front of the room. There are also locations available to charge devices during class time.

*“All members of the Swan Valley School Division community are expected to use digital technology in a safe, respectful, responsible, and ethical manner. SVSD devices are to be used in the classroom for learning. Students are encouraged to use these devices **as supported by the classroom teacher for positive educational benefits** and guided classroom instruction.*

*****Absolutely no electronic devices are permitted during quizzes, tests, or exams. Students who are caught with electronic devices will receive an automatic zero without debate*****