Dartmouth High School
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Contact
Name: Mrs. Sealey   Website: sealeym.weebly.com Course: Extended Math 11 Email: sealeym@hrce.ca   Phone: 902-464-2457   Extension: 4001217 Parents and students please to refer to the HRCE *Assessment, Evaluation, and Communication of Student Learning* Policy accessible at http://www.hrce.ca/ **Math 11 Extended is a two-credit academic course that runs for the full year. (will count as one math credit and one technology credit)**

Course Introduction
Students in Extended Mathematics 11 will study the following topics: applications of rates, scale diagrams and factors, inductive and deductive reasoning, an introduction to proof, cosine law, sine law, spatial reasoning, statistics, systems of linear inequalities, quadratic functions and big data/data analytics. While studying the topics in an academic mathematics course, the pace for Extended Mathematics 11 will allow more time for students to activate prior knowledge, engage in sense-making tasks and projects and consolidate their understanding.

Evaluation:
- **Term Mark: 80%**
- **Final Exam: 20%**

When determining a students' final grade:
- *No single assessment tool (i.e. presentations, labs, demonstrations, portfolios, debates, written tests/quizzes) will account for more than half of the value of each Gradebook category*
- *Learning trends over time will be considered, more recent student work and the teacher's professional judgment*
- *Students will participate in a final cumulative assessment opportunity that allows them to demonstrate an appropriate range of the learning outcomes and process skills involved in the course. This final assessment, whether a written examination or alternative assessment opportunity, will be worth no more than 30%.*

Strands include:

- **12.5%: Linear Functions (Ch 6) Graphing systems of inequalities, solving systems by graphing, and Optimization Problems (Creating the Model, Exploring Solutions, Linear Programming)**

- **17.5%: Quadratic Functions (Ch 7) Quadratic relations, graphs of quadratic functions, solving quadratic equations (graphically, by factoring, and using the quadratic formula),**

forms of quadratic equations (standard form, factored form, vertex form), solving problems involving quadratic functions.

· **10%: Reasoning (Ch 1)** Making conjectures, inductive reasoning, exploring validity of conjectures, using reasoning to find a counterexample to a conjecture, proving conjectures through deductive reasoning, proofs that are not valid, reasoning to solve problems, analyzing puzzles and games.

· **10%: Angles (Ch 2)** Properties of parallel lines, angles formed by parallel lines, angle properties in triangles and polygons.

· **10%: Measurement (Ch 8)** Comparing and interpreting rates, solving problems involving rates, scale diagrams, scale factors.

· **12.5%: Trigonometry (Ch,3,4)** Law of sines (including the ambiguous case), law of cosines, solving problems using the laws of sines and cosines.

· **12.5%: Statistics (Ch 5)** Ways to represent data, standard deviation, normal distribution, z-scores, confidence intervals.

· **15%: Data Analytics (Supplement)** One variable data, two variable data, scatter plots, line of best fit, linear models, regression, correlation coefficient, residual plots, inferences, data in society.

Assessment Practice
Students will be provided with multiple opportunities to demonstrate their progress toward achievement of outcomes.

● Assessment **for** Learning/Formative Assessment is the ongoing process of gathering and interpreting evidence about student learning for the purpose of determining where students are in their learning, where they need to go, and how best to get there; instructional strategy that takes place while the student is still learning and served to promote learning
● Assessment **of** Learning/Summative Assessment is the process of analyzing, reflecting upon, and summarizing assessment information and making a judgment and/or decision based upon the information gathered.
● Assessment will take many forms, and will include observations, conversations, and products.
● Assessment Tools include, but are not limited to homework probes, quizzes, in-class assignments, tests, projects, and the final exam.

Creating Opportunities for Success (reference school code of conduct)
● Students are expected to attend class regularly, be punctual, be prepared with appropriate materials, and homework complete.
● Students are expected to take an active part in their own learning, and follow the DHS school code of conduct (as outlined in the student handbook).
● Students are expected to demonstrate responsible use of technology.
● Students are expected to make positive contributions to the learning environment.

Procedural Expectations

Students are responsible for:
- *Seeking assistance with assignments when required;*
- *Requesting an extension for assignments in a timely manner when required;*
- *Completing assignments by specified due dates so that teachers can provide timely feedback;*
- *Responding to feedback provided during the learning process.*
- *In the event that a due date for an assignment is missed, it will be at the discretion of the teacher and principal to extend the deadline.*
- *Students who do not adhere to the extended deadline will have missed that opportunity to demonstrate achievement towards the outcomes addressed in that assignment.*

- When an assessment is missed due to an absence, students/ parents are asked to communicate with the teacher to arrange for the assessment to be completed.
- Students are **unable** to exempt the final exam for **any** math course, however attendance, lates, and completion of major assessments in math courses will still be considered when applying for exemptions in other courses.

Communication Tools

Dartmouth High School will use a variety of methods to communicate student achievement throughout the school year.

- Parents and students are encouraged to monitor progress (as well as lates and absences) using the PowerSchool portal.
- Assessments may be coded as collected, late, missing, or not included in final grade. There may also be comments listed, such as areas of improvement or dates for negotiated extensions.
- When assessments start to be categorized in a new strand, these assessments are initially weighed heavily and may cause significant change in a student's overall grade. This weighting will become more balanced as assessments continue to be included in the new strand.
- While DHS has a number of scheduled opportunities for communication between home and school (Curriculum Night, Parent-Teacher Interviews, Mid Term Reports, Final Report Cards), parents and students are encouraged to contact the teacher any time during the semester to discuss progress.

Accessing Help
- Extra-help is available Tuesday and Thursday at lunch (or by appointment).
- Students can access the textbook electronically at http://tinyurl.com/FM11pdf (please contact the teacher for access code).

Equipment Needs
- Students will need a binder with loose-leaf to use when taking class notes, and completing practice problems.
- Other materials for the course include a scientific calculator, pencil, eraser, pen, highlighter, ruler, and graph paper.