Dartmouth High School
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Contact

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Parents and students please to refer to the HRSB *Assessment, Evaluation, and Communication of Student Learning* Policy accessible at http://www.hrsb.ns.ca/

Term Mark: 80% Final Exam: 20%

Course Introduction

Students in Calculus 12 will explore the following topics: Limits, Rates of Change, Derivatives, Applications of Derivatives, Areas under Curves, Integration and applications of Integration.

Evaluation

When determining a students' final grade:

- *No single assessment tool (i.e. assignments, probes, activities, written tests/quizzes) will account for more than half of the value of each Gradebook category.*
- *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 20%.*

Strands include:

25% Limits & Rate of Change: Course lessons will introduce Limits and Rates of Change. This will lead to explorations of continuity of functions and the definition of derivative. Furthermore, the power rule, curve sketching, tangent and normal lines will be studied. Applications such as Max/Min problems, position and velocity will be covered.

25% Differentiation Rules: Course lessons will introduce the concept of differentiable functions. This will lead to explorations of derivatives rules such as product, quotient and chain rules. This course will also cover implicit differentiation and related rate problems.

25% Applications of Derivatives: Course functions will further explore applications of derivatives. Such as using second derivatives in curve sketching and acceleration problems. This course will also involve the use of derivatives of trigonometric, exponential and log functions. As well as, the method of logarithmic differentiation.

25% Area Under the Curve and Integration: Course lessons will introduce concept of area under the curve and will involve the use of rectangles, Riemann sums and integrals. In addition to exploring the Fundamental Theorem of Calculus, applications such as area between curves and volumes of revolution will be covered. Consequently a detailed synopsis of the various techniques of integration will also be explored.

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 Tuesdays and Thursdays at lunch (or other times by appointment).

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.