



**MATH 20-3 COURSE OUTLINE**  
**Block 1**

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**COURSE CURRICULUM OUTCOMES - *From the Alberta Math Program of Studies***

| <b>STRAND</b>      | <b>Outcomes: Students will...</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MEASUREMENT</b> | Develop spatial sense through direct and indirect measurements. <ul style="list-style-type: none"> <li>- Solve problems that involve SI and imperial units in surface area measurements and verify the solutions</li> <li>- Solve problems that involve SI units in volume and capacity measurements</li> </ul>                                                                                                                                                      |
| <b>GEOMETRY</b>    | Develop spatial sense. <ul style="list-style-type: none"> <li>- Solve problems that involve two and three right triangles</li> <li>- Solve problems that involve scale</li> <li>- Model and draw 3-D objects and their views</li> <li>- Draw and describe exploded views, parts and scale diagrams of simple 3-D objects</li> </ul>                                                                                                                                  |
| <b>NUMBER</b>      | Develop number sense and critical thinking skills. <ul style="list-style-type: none"> <li>- Solve problems that involve personal budgets</li> <li>- Demonstrate an understanding of compound interest</li> <li>- Demonstrate an understanding of financial institution services used to access and manage finances</li> <li>- Demonstrate an understanding of credit options, including credit cards and loans</li> </ul>                                            |
| <b>ALGEBRA</b>     | Develop algebraic reasoning. <ul style="list-style-type: none"> <li>- Solve problems that require the manipulation and application of formulas related to volume and capacity, surface area, slope and rate of change, simple interest, and finance charges</li> <li>- Demonstrate an understanding of slope: as rise over run, as the rate of change, by solving problems</li> <li>- Solve problems by applying proportional reasoning and unit analysis</li> </ul> |

|                   |                                                                                                                                                      |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>STATISTICS</b> | Develop statistical reasoning.<br>- Solve problems that involve creating and interpreting graphs: bar graphs, histograms, line graphs, circle graphs |
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**Year Plan Math 20-3**  
(subject to change as the semester progresses)

|                                                  |                          |
|--------------------------------------------------|--------------------------|
| <b>Unit 3: Surface Area, Volume and Capacity</b> | <b>Sept 1 - Sept 23</b>  |
| <b>Unit 4: Trigonometry of Right Triangles</b>   | <b>Sept 26 - Oct 14</b>  |
| <b>Unit 1: Slope and Rate of Change</b>          | <b>Oct. 17 - Nov. 4</b>  |
| <b>Unit 2: Graphical Representations</b>         | <b>Nov. 7 - Nov. 23</b>  |
| <b>Unit 5: Scale Representations</b>             | <b>Nov. 24 - Dec. 9</b>  |
| <b>Unit 6: Financial Services</b>                | <b>Dec. 12 - Dec. 22</b> |
| <b>Unit 7: Personal Budgets/ Review</b>          | <b>Jan. 9 - Jan. 20</b>  |

**Textbook Resource:** MathWorks 11 Workbook

**Instructional Methodologies:**

A variety of instructional methodologies will be used in this class. Whenever possible, concepts will be introduced using manipulatives and be developed concretely, pictorially, and symbolically.

**Classroom Materials:**

- Binder with lined & graph paper, compass, protractor, ruler, pencils, erasers, and a red marking pen. (Scribbler for notes).
- Approved scientific calculator (one with SIN/COS/TAN functions)
- School-issued Chromebooks

**Assessment Guide**

The guide below breaks down the summative assessment (final report card grade) for this course. The grade is based on the learner's achievement of the curriculum outcomes for the Math 20-3 course.

**Calculation of Marks:**

|                                                   |     |
|---------------------------------------------------|-----|
| In-Class assignments, projects & assessments..... | 35% |
| Quizzes.....                                      | 15% |
| Unit Exams.....                                   | 30% |
| Final Exam.....                                   | 20% |

| Description                                                                                    |
|------------------------------------------------------------------------------------------------|
| Tests are designed to measure achievement of outcomes at the end of each unit.                 |
| Quizzes are designed to measure the achievement of outcomes throughout each unit.              |
| Exams are designed to measure achievement of outcomes in multiple units throughout the year    |
| Assignments will assess achievement of curriculum outcomes throughout each unit.               |
| The Final exam at the end of the year will cover all the outcomes taught from the entire year. |

**Assessment for Learning (Formative Assessment)** is a systematic process of collecting information or evidence about student learning and is not assigned a grade/mark for the report card.

**Assessment of Learning (Summative Assessment)** is the judgment we make about the assessments of student learning based on established criteria and a mark/grade is recorded for the report card. The purpose of assessment is to improve student learning. This means that judgments of student performance must be criterion-referenced so that descriptive feedback can be given that includes clearly expressed next steps for improvement. Tools of varying complexity are used by the teacher to facilitate this. For the more complex evaluations, the criteria are incorporated into a rubric where levels of performance for each criterion are stated in language that students can understand. Where possible, students will be engaged in their assessment through self-reflection and the construction of rubrics.

Assessment is embedded within the instructional process throughout each unit rather than being an isolated event at the end. Often, the learning and assessment tasks are the same, with the formative assessment provided throughout the unit. In every case, the desired demonstration of learning is articulated clearly and the learning activity is planned to make that demonstration possible. This process of beginning with the end in mind helps to keep the focus on the expectations of the course curriculum outcomes. The evaluations are expressed as a percentage/mark/grade based upon levels of achievement.

### ***Opportunities to demonstrate learning***

When the teacher's professional judgment indicates the student is in a position to demonstrate learning on a summative assessment with greater success than the initial attempt, such an alternative or additional summative assessment will be provided at a time agreed upon by the student and the teacher.

## **Appeals Process**

If a student is not satisfied with an assessment outcome, first discuss the matter with the teacher outside of class time. If the teacher and student are unable to resolve the issue, then the teacher will approach another teacher to assess the assignment. (The teacher will not have prior knowledge of the student's name or the previous grade for the given assignment). If there is still an issue, a meeting will be set up between the student, teacher, parents, and administration to resolve the matter. The commencement of an appeal must occur promptly; within 48 hours of receiving the marked assignment. In return, the appeal process will be completed as soon as possible.

## **Classroom Expectations:**

1. *Be Respectful and Responsible.*
2. *Be on time and prepared for class every day.*
3. *Do your work: Show questions and processes used to solve them. Communicate the answer, verify your answer is correct & correct any errors that are made.*
4. *Seek help promptly.*
5. *Display mature and considerate behavior.*
6. *Follow all school rules and expectations.*

## **Late Work**

- In-class assessments are due at the end of the assigned class. Projects, practice work, and assignments are due at the beginning of the class on the due date. This is usually the following day.
- Late work will be accepted until the assignment or project is marked and returned to the class. Once work is marked and returned, an alternate assignment or project may be issued to the student for assessment.
- *If you are absent and unable to hand in an assignment, you will be expected to take a picture or scan it into a computer and send it via email as a jpeg or PDF.*

## **Extra Help**

**Students are encouraged to ask for help or clarification during class.** Every question, no matter how simple it may seem, is an important question. Please do not say you understand if you don't. **Perseverance** is an important part of learning something that is difficult. I am available for extra help sessions before/after school, as well as at lunch as per student requests.

## **Missed Time**

If you are **absent from class**, it is your **responsibility to check** the google classroom posts, email your teacher and get any extra information from other classmates.

**In the event of buses not running;** I will run a drop-in google meet during regular time. This will be time to ask questions, clarify concepts, work on assignments, have group discussions, etc. No new material will be covered but dependent on the frequency of this situation this could change.