**Grade 11 Applied Mathematics**

*Ste. Rose School Miss K. Orr Sept. 2025 – Jan. 2026*

*Course Code:* **3903**

***Credit value: 1.0***

**Communication**

**e-mail:** [korr@trsd.ca](mailto:korr@trsd.ca)

**Phone:** 204-447-2088 (school)

***Microsoft teams*** *will be used throughout the year as the main communication and organizational medium between the teacher, students and parents.*

***The code for this class is:*** *li3u6es*

**Course Description**

Grade 11 Applied Mathematics learners will develop a spatial sense and a proportional reasoning involving the application of rates and scale diagrams, and they will demonstrate an understanding of the relationships among scale factors, areas, surface areas, and volumes of similar shapes and objects. They will develop a spatial sense as they derive proofs that involve the properties of angles and triangles, and they will apply the cosine law and the sine law. Learners will develop logical reasoning as they analyze and prove conjectures using inductive and deductive reasoning, and as they analyze puzzles and games that involve spatial reasoning. They will develop statistical reasoning involving the concepts of normal distribution and interpreting statistical data. Learners will develop algebraic and graphical reasoning through the study of relations involving systems of linear inequalities and demonstrate an understanding of the characteristics of quadratic functions. They will develop an appreciation of the role of mathematics in society by researching and giving a presentation on a mathematical historical event or an area of interest that involves mathematics.

***\*\*This course requires a ti-83*** *be brought to each and every class.**If you do not already have one, you can* ***purchase one on your own at a value of around $150, or you can******choose to “rent” one from the office. A $75 deposit will be required*** *to use the school calculator, but this deposit will be returned at the end of the semester if the calculator is still in good working condition\*\**

**Course Content**

***Unit 1:* Statistics** (3 weeks)

* *Standard Deviation*
* *Z-Scores*

***Unit 2:* Measurement** (3 weeks)

* *Scale*
* *Surface area problems*

***Unit 3:* Mathematical Reasoning** (2 weeks)

* *Proofs*
* *Inductive & Deductive Reasoning*

***Unit 4:* Trigonometry** (3 weeks)

* *Sine Law*
* *Cosine Law*

***Unit 5:* Quadratics** (4 weeks)

* *Solving by Factoring*
* *Solving by Graphing*

***Unit 6:* Systems of Linear Inequalities** (4 weeks)

* *Solving Systems*
* *Optimization Problems*

***Unit 7:* Mathematics Research Project** (2 weeks)

* *Research Project*
* *Analyze puzzles & games*

**Evaluation**

**Course Work 70%**

**Final Exam 30%**

***There will be a cumulative Final Exam during the January exam week worth 30% of your final grade.*** *This will be written as per exam policy in the Ste. Rose School Student Handbook.*

**Required Materials**

* Binder
* Loose Leaf
* Pencils/Pens (both red & blue)
* Textbook (*Math at Work 11)*
* Graphing Calculator
* Laptop

**Policies, Procedures & Notices:**

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| **Responsibility**   1. If you are absent, you are responsible for finding out what you have missed. The majority of documents should be available for you on Microsoft Teams, however if paper copies were provided in class, there will be a copy for you in a predetermined location. Please come see me if you have questions regarding what you have missed. *Note: students are expected to follow the Ste. Rose School Attendance Policy.*    1. **Late Policy:** You will be considered late if you arrive after the bell. You will be considered absent if you arrive more than 10 minutes late.    2. **Absent Policy:** Your parents will be receiving an email/phone call/letter if you are absent 5 times this year. They will be receiving another email/phone class/letter if you have absent 10 times. If you are absent more than 10 times, a parent meeting will need to be scheduled in order for you to continue with this class. 2. Come to class **ON TIME & PREPARED** with your **laptop,** binder, notebooks, writing utensils, calculator & any other items you might need. 3. This classroom will be one where everyone is comfortable to ask questions and state their opinions. Therefore, everyone is expected to **treat others with respect.** Inappropriate comments will not be permitted. 4. Go to the washroom prior to class AND ensure your water bottle is filled. |
| **Assessment & Grading**  All of the graded assignments, projects, tests, and discussion will be graded according to the student’s ability to meet the Manitoba curriculum outcomes. Both formative and summative assessment tools will be used. To obtain an overview of the curricular outcomes go to the link below or contact Miss Orr.  <https://www.edu.gov.mb.ca/k12/framework/english/math/grade_11/applied.html> |
| **Miss Orr’s Late Assignment Policy**  ***Time management*** and having the ability to***meet due dates*** is an extremely important skill. Assignments are expected to hand in assignments on the due date. Late assignments will only be accepted at the teacher’s discretion. **It is up to the student to communicate with the teacher** if they cannot complete the assignment on the expected due date.   * Upon a student not meeting a due date, communication will occur via email to the student, parents, and principal noting **steps to move forward.** * Work not submitted on time with no plan of action will be **marked as a zero.**   ***Note: All due dates in MY COURSES are at 3:30pm.*** |
| **Cell phones**  As per the Manitoba government and Turtle River School Division’s policy, no cell phones will be allowed **during class time**, unless directed for educational purposes by your teacher. In my class, you will be required to place it in a holder in a designated location during class time. If you are caught with it during class and it is not in the holder, **parents will be contacted** and administration will become involved. |
| **Academic Dishonesty**  The Ste. Rose School Handbook outlines the expectations in regards to academic dishonesty. If at any time you are unsure about an assignment it is the student’s responsibility to ask for clarification, attendance and the use of technology.   * **1st offence:** The student will receive a zero (0) on the assignment. A phone call/email will be sent to the parent/guardian. * **2nd offence:** A letter will also be sent home to the parent/guardian. The parent/guardian must sign the letter and return it to the school. The Student will receive a zero (0) on the assignment. * **3rd offence:** The student will receive a zero (0) on their assignment and they will be referred to the principal for further disciplinary action. A meeting will need to be arranged with the parent/guardian to address the severity of this issue. |
| **Extra Help**  If you require extra help, please come see me directly to set up a time that will work for both of us. Do not hesitate to reach out to me if you have any questions or concerns about the material we are covering. |