

# Gr 12-Essential Math 40S (3000)

**Teacher: Mr. J. Thompson**

Credit Value: 1.0

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Classroom: Computer Lab

Pre Requisites: None

## **Course Description**

Grade 12 Essential Math is a course designed for students who do not plan to attend post-secondary institutes to study mathematics or science related fields. The purpose of this course is to prepare students for the world of math that awaits them after high school.

A major focus in this course is the application of math across various real world settings, including buying a vehicle or house, paying taxes, owning a business, and shopping for discounts. Logical reasoning and critical thinking will also be stressed in the course, as students will be required to make informed decisions from data gathered. This course will also include a career life project that will require students to prepare a detailed outline of their personal and financial goals for the next 5 years.

## **Course Timeline**

Unit 1: Trigonometry: Working with Sine Law and Cosine law (Feb 4-Feb28)

Unit 2: Stats & Probability: Mean, median, mode, percentiles, linear relations, direct/partial variations, experimental vs theoretical probability, odds (March 2-27)

Unit 3: Precision Measurement: accuracy of estimations, measuring tools, uncertainty vs certainty (April 6-24)

Unit 4: Personal Finance: Buying/owning a vehicle, lease vs purchase, cheque book balance, taxes (April 27-May 15)

Unit 5: Future Planning: Owning a home, purchasing a home, mandatory vs non mandatory costs, managing costs (May 18-June9)

## Outcomes

**GLO A:** Develop critical thinking skills (All units and mental math)

**Glo B:** Develop an understanding of owning and leasing a vehicle (Personal Finance)

**GLO C:** Develop and understanding of housing costs (Future Planning)

**GLO D:** Develop an understanding business operations (Personal Finance)

**GLO E:** Develop statistical reasoning and odds of uncertainty (Stats & Probability)

**GLO F:** Develop spatial sense relating to triangles and polygons(Trigonometry)

**GLO G:** Develop spatial sense relating to the limitations of measuring instruments (Precise Measurement)

**\*Unit order is subject to change throughout the year\***

### Student Assessment

All coursework will be a cumulative mark, consisting of 70% of the final mark. The final *Divisional Exam* will be 30% of the final mark. All assessments will be given a number value, dependent on each assignment, and will be stated prior to each test or assignment. Rubrics will be used for all projects. Assessment will be based on a variety of activities, and are listed below:

- Daily Mental Math Activities (handed-in weekly)
- Assigned Workbook pages (Each Chapter)
- Chapter Tests (End of each Chapter)
- Observations/ Discussions (Ongoing)
- Tests (At the end of each Unit)
- Projects (Are handed out the first day of a new unit and are due the last day of the unit)
- Divisional Exam covering all units covered (End of Term)

**Term Work** - Formally Evaluated Cumulative Work (assignments, unit tests, projects)

.....**70%**

**Final Exam** (Provincial: June 10) .....**30%**

Make up assignments and re-tests will be available upon speaking with the teacher and there is a just-cause to do so. It is expected to have shown some effort by completing daily work and having evidence of an honest effort being put into the original assignment or test. This will be decided by the teacher and student at the time of the request.

### Behavioural Assessment

Students will be assessed as per the guidelines from the Manitoba provincial report card, in the areas as follows:

**Personal Management Skills**· Organizes material, uses class time productively, works independently, completes all work on time, persists when faced with challenges, seeks help

when needed, demonstrates a strong work ethic, shows patience, demonstrates on-task behaviour, sets personal management goals

**Active Participation in Learning-** Shows interest, asks questions, takes initiative, self-assesses work quality based on criteria, uses feedback to improve learning, uses criteria to provide feedback, uses a variety of media for communication, investigates questions, hypothesizes, analyzes

**Social Responsibility-** Works and interacts well with others, is welcoming and positive, shares resources and equipment with others, respects school values, respects and follows classroom routines, takes an equitable share in group work, is courteous, respects the need for safety, sets personal management goals

## **Late Assignment Policy – Grades 7-12**

McCreary School's policy for late assignments was developed in accordance with the Provincial Assessment Policy.

The guidelines for late assignments are as follows:

1. Teachers will set and communicate reasonable timelines for assignments
2. Teachers will share timelines and reminders with students through various formats (ex. course outline, email, post in classroom, etc.)
3. Teachers will assist students to meet timelines – monitor progress, check-ins
4. Students who struggle will require additional support from the teacher
5. Extensions will be granted at the teacher's discretion, for valid and legitimate reasons only (ex. Illness)
6. Teachers will communicate with parents or set up parent/teacher/student conferences to discuss late assignments
7. Teachers will make an arrangement with student to complete work
8. Teachers will create alternative assignments for diverse learning needs

Where the above guidelines have been followed and assignments are not handed in by the given due date, a deduction in marks will apply. Upon teacher discretion a maximum of 5% may be deducted for every day the assignment is not turned. If the assignment is not turned in after two weeks or at the start of a new unit, the assignment will receive a mark of zero.

### Academic Integrity and Honesty

Students guilty of cheating (copying, plagiarizing, etc.) will receive a zero and their parents will be notified.

### Tech Policy

Students will follow the McCreary school policy in regards to the use of technology in the class.

### Student Support and Attendance Policy

The teacher will be available for additional support outside of the classroom hours and is the responsibility of the student to arrange a time with the teacher. Students will be responsible to complete work they miss in the case of their absence (which the teacher must be informed in advance, when possible). Those who do not attend class regularly will be referred to the Learning to 18 Coordinator.

***\*\*This course outline and the evaluation breakdown and unit dates may be subject to change.\*\****

### **Textbook**

Hunter, C. et. al. 2012. Apprenticeship and Workplace 12. Nelson Education Inc, Toronto, ON.

### **Keys to Success...**

- Complete all assignments and readings by the due date
- Study for tests and exams
- Come in for extra help when needed
- **Make Mistakes.** It helps you recognize when you're doing things right.