



**I. COURSE DESCRIPTION:**

This course focuses on developing the student's number sense and problem solving abilities using a variety of tools and strategies that include computer technology. Skills required to perform mental calculations and communicate mathematical concepts and processes will be emphasized and assessed. By the end of the course, the student will be able to interpret mathematical models, represent quantitative information in a variety of ways and use different mathematical and statistical methods to solve problems. Topics include number sense, geometry, measurement, percent and descriptive statistics.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Perform calculations accurately with and without technology

Potential Elements of the Performance:

- use computer technology, throughout the semester, to improve mental mathematical skills and speed
- use estimation to check and determine the reasonableness of answers, round values appropriately as required
- use appropriately as a problem solving tool

2. Solve problems involving mathematics.

Potential Elements of the Performance:

- exhibit perseverance, ability, and confidence to use mathematics to solve problems
- use a variety of problem-solving strategies and exhibit logical thinking
- work effectively with others to solve problems
- estimate and check answers to problems and determine the reasonableness of results
- communicate findings both in writing and orally using appropriate mathematical language and symbolism

## 3. Measure and work with measurements.

Potential Elements of the Performance:

- use Metric, Imperial, and U.S. Customary System of measurement
- convert between systems of measurement
- work with measures of length, area, volume, currency, etc
- make reasonable estimations of the measure of various items
- measure various items using the appropriate methods and devices

## 4. Solve problems involving angles and plane geometry.

Potential Elements of the Performance:

- measure of angles and angle relationships
- angles formed by intersecting lines, perpendicular lines, parallel lines, complementary angles, supplementary angles, corresponding angles, alternate angles, sum of angles in polygons
- right triangles and the Pythagorean Theorem
- calculate the perimeter and area of regular and irregular plane geometric shapes; i.e. rectangle, square, parallelogram, rhombus, trapezoid, triangle, circle, semi-circle, and composite shapes
- applications of plane geometry; directions and bearings

## 6. Communicate quantitative information by using a variety of descriptive statistic processes.

Potential Elements of the Performance:

- recognize the value of statistical information in a variety of environments.
- collect, collate, analyze and interpret data for a variety of purposes.
- derive meaningful information from statistical data.
- present and interpret data in such a manner that it is understood by and is meaningful to colleagues, peers, and clients.
- construct a variety of charts, such as histograms, bar graphs, circle graphs, and scatter plots.
- use Microsoft Excel to collate and analyze data, and to create charts, graphs, and calculate statistical information.
- become critical of the statistical information portrayed in the media, work, and educational environments
- calculate the mean, median and mode, as appropriate.
- calculate measures of variation (min, max, range, variance, standard deviation).
- construct confidence intervals and determine appropriate sample sizes.
- make practical application of the normal distribution.

**III. TOPICS:**

1. Number Sense and Mental Calculations
2. Angles and Plane Geometry
3. Descriptive Statistics

**IV. REQUIRED RESOURCES:**

MyMathTest Access Code Package, Pearson Canada, ISBN: 0321557077

Calculator: SHARP Scientific Calculator EL-531.

Note:

*The use of some kinds of calculators, cell phones, and other electronic devices may be restricted during tests.*

**V. EVALUATION PROCESS/GRADING SYSTEM:**

Individual Classroom Activities and Assignments	15%
Group Classroom Activities and Assignments	15%
MyMathTest Component	20%
Tests	50%

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

**VI. SPECIAL NOTES:****Attendance:**

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

**VII. COURSE OUTLINE ADDENDUM:**

1. Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

2. Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

3. Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

4. Accessibility Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Accessibility Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

5. Communication:

The College considers ***Desire2Learn (D2L)*** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of this Learning Management System (LMS) communication tool.

6. Plagiarism:

Students should refer to the definition of "academic dishonesty" in *Student Code of Conduct*. Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

7. Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of November will be removed from placement and clinical activities due to liability issues. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default. Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.

8. Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations, in addition to announcements, news, academic calendar of events, class cancellations, your learning management system (LMS), and much more. Go to <https://my.saultcollege.ca>.

9. Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.