

COURSE SYLLABUS



COURSE TITLE: Math 052 Intermediate Mathematics 1

CLASS SECTION: S05

TERM: Fall 2024

COURSE CREDITS: 0

DELIVERY METHOD: In Person

Camosun College campuses are located on the traditional territories of the Lək̓ʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.

Learn more about Camosun's [Territorial Acknowledgement](#).

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.

INSTRUCTOR DETAILS

NAME: Augustin (Ruse) Rusekampunzi

CLASSROOM: CBA 123

EMAIL: ruse@camosun.ca

HOURS: Mondays & Wednesdays 1230 - 1520 (See [class handout for lab and office hours](#)).

This course consists of 6 hours of class time and 4 hours of lab time per week. Lab time includes, but is not limited to, tutorials with an instructor and/or instructional assistants and using the instructional resources in the Help Centre and library, virtually, and in person.

As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

CALENDAR DESCRIPTION

In this course students will learn practical computational and problem-solving skills required for daily life and for further study in intermediate-level algebra and math for trades. Topics: proportion, percent, graphs, statistics, measurement, geometry, and trigonometry.

Prerequisites

One of:

- COM in [MATH 026](#)
- COM in [MATH 037](#)
- COM in [MATH 038](#)
- C in [MATH 039](#)

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon successful completion of the course, students will be able to:

1. Operations with Rational Numbers
 - a. Write fractions as decimals and decimals as fractions
 - b. Add, subtract, multiply, divide, and simplify rational numbers

- c. Use order of operations
 - d. Graph rational numbers on the number line
 - e. Define absolute value
2. Ratio, Proportion, and Percent
- a. Read, write, interpret, and compare ratios
 - b. Read, write, and identify proportions and use them to solve problems
 - c. Use ratio and proportion to interpret and make scale drawings
 - d. Use ratio and proportion to solve problems involving similar triangles
 - e. Use ratios and proportions to solve problems including:
 - i. Finding percent when part and whole are known
 - ii. Finding part when percent and whole are known
 - iii. Finding whole when part and percent are known
3. Measurement problems
- a. Use the common metric units for temperature, length, area, volume/capacity, and mass
 - b. Use the common Imperial units (or US customary) for temperature, length, area, volume/capacity, and force
 - c. Convert between and within metric and Imperial units (or US customary) using tables and/or calculator
 - d. Use proportional reasoning for conversions
4. Perimeter, Area, and Volume
- a. Find perimeters of triangles, squares, rectangles, parallelograms, trapezoids, circles, and composite figures using formulas
 - b. Find areas of the above shapes using formulas
 - c. Find the surface areas of cubes, rectangular solids, right cylinders, spheres, and composite solids using formulas
 - d. Distinguish between concepts of perimeter and area and their respective units
5. Trigonometry
- a. Name parts of a triangle
 - b. Find missing side of a right triangle using the Pythagorean Theorem
 - c. Find the measure of an unknown side or angle of a right triangle using sine, cosine, or tangent ratios
 - d. Solve problems using right angle trigonometry

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

- (a) Textbook: the textbooks may be purchased from the bookstore. A digital version can be freely accessed as below:
 - i. Basic Review: <http://pressbooks.bccampus.ca/basicreview/>
 - ii. Intermediate Algebra I: <https://pressbooks.bccampus.ca/math52/>
- (b) Scientific calculator: The Sharp EL-531W (or similar) is the only calculator allowed for this course

COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

| MATH 052 course content | | |
|-------------------------|--|--|
| | BASIC REVIEW UNIT (no calculator) | |

| | | |
|------------|--|--|
| | Chapter 1: Whole Numbers, Integers, and Introduction to Algebra | |
| Week 1-2 | 1.1 Whole Numbers | |
| | 1.2 Use the Language of Algebra | |
| | 1.3 Evaluate, Simplify, and Translate Expressions | |
| | 1.4 Add and Subtract Integers | |
| | 1.5 Multiply and Divide Integers | |
| | 1.6 Chapter Review | |
| Week 2-4 | Chapter 2: Operations with Rational Numbers and Intro to Real Numbers | |
| | 2.1 Visualize Fractions | |
| | 2.2 Add and Subtract Fractions | |
| | 2.3 Decimals | |
| | 2.4 Introduction to the Real Numbers | |
| | 2.5 Properties of Real Numbers | |
| | 2.6 Chapter Review | |
| | BASIC REVIEW UNIT FINAL TEST (no calculator) | |
| | | |
| Week 5-7 | UNIT 1 Chapter 3: Ratio, Proportion, and Percent | |
| | 3.1 Ratios and Rate | |
| | 3.2 Understand Percent | |
| | 3.3 Solve Proportions and their Applications | |
| | 3.4 Solve General Applications of Percent | |
| | 3.5 Chapter Review | |
| | UNIT 1 FINAL TEST (calculator allowed) | |
| | | |
| Week 8-12 | UNIT 2 Chapter 4: Measurement, Perimeter, Area, Volume | |
| | 4.1 Systems of Measurement | |
| | 4.2 Use of Properties of Rectangles, Triangles, and Trapezoids | |
| | 4.3 Solve Geometry Applications: Volume and Surface Area | |
| | 4.4 Solve Geometry Applications: Circles and Irregular Figures | |
| | 4.5 Chapter Review | |
| | UNIT 2 FINAL TEST (calculators allowed) | |
| | | |
| Week 12-14 | UNIT 3 Chapter 5: Trigonometry | |
| | 5.1 Use Properties of Angles, Triangles, and the Pythagorean Theorem | |
| | 5.2 Solve Applications: Sine, Cosine, and Tangent Ratios | |
| | 5.3 Chapter Review | |
| | UNIT 3 FINAL TEST (calculators allowed) | |
| | | |
| | Math 052 Final Practice | |
| Week 15 | MATH 052 FINAL EXAM (calculators allowed) | |
| | | |

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html>

EVALUATION OF LEARNING

You need to pass each test with a minimum of 75%

| | |
|-------------------|------------|
| Basic Review Test | 20% |
| Unit 1 Test | 20% |
| Unit 2 Test | 20% |
| Unit 3 Test | 20% |
| Final Exam | <u>20%</u> |
| Total | 100% |

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf) policy for more information.
<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

COURSE GUIDELINES & EXPECTATIONS

The course consists of 6 hours of class time and 4 hours of lab time per week. Lab time is generally spent in the Help Centre where instructional resources are available. Course completion time will vary for each student, depending on a number of factors, including your current level of math skills, motivation, learning rate, and how much time you have to study math, either at the college or at home. Students generally need to spend 5–15 hours of study time per week to complete each math course within a reasonable amount of time.

SCHOOL OR DEPARTMENTAL INFORMATION

Standard Grading System <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>

| | | | | | | | |
|----|---------|----|--------|----|-------------|---|--------|
| A+ | 90–100% | B+ | 77–79% | C+ | 65–69% | D | 50-59% |
| A | 85–89% | B | 73–76% | C | 60–64% | F | 40-49% |
| A– | 80–84% | B– | 70–72% | IP | in progress | | |

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for information on conversion to final grades, and for additional information on student record and transcript notations.

STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

| Support Service | Website |
|-------------------------------------|---|
| Academic Advising | http://camosun.ca/advising |
| Accessible Learning | http://camosun.ca/accessible-learning |
| Counselling | http://camosun.ca/counselling |
| Career Services | http://camosun.ca/coop |
| Financial Aid and Awards | http://camosun.ca/financialaid |
| Help Centres (Math/English/Science) | http://camosun.ca/help-centres |
| Indigenous Student Support | http://camosun.ca/indigenous |
| International Student Support | http://camosun.ca/international/ |
| Learning Skills | http://camosun.ca/learningskills |
| Library | http://camosun.ca/services/library/ |
| Office of Student Support | http://camosun.ca/oss |
| Ombudsperson | http://camosun.ca/ombuds |
| Registration | http://camosun.ca/registration |
| Technology Support | http://camosun.ca/its |
| Writing Centre | http://camosun.ca/writing-centre |

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](http://camosun.ca/services/accessible-learning/) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures" (<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized

Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-3703841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

Changes to this Syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.