



CAMOSUN COLLEGE
School of Arts & Science
Department of Mathematics & Statistics

MATH-143-001
Geometry & Probability for Ed.
Winter 2018

COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/math.html>

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

(a) Instructor	Stephen Benecke	
(b) Office hours	Mon-Fri 10:30-11:30	
(c) Location	E254	
(d) Phone	250-370-3943	Alternative: _____
(e) E-mail	Stephen.benecke@gmail.com	
(f) Website	www.thebeneckes.com/math/	

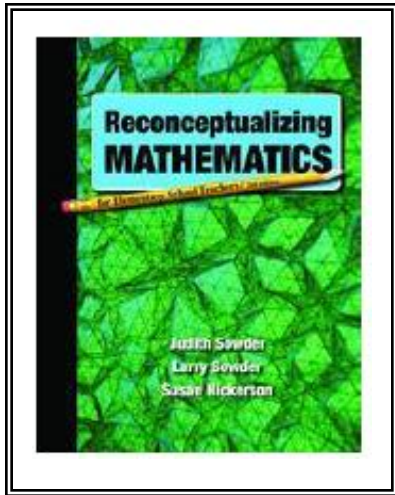
2. Intended Learning Outcomes

Upon completion of this course the student will be able to:

1. Use, recognize, and illustrate the various terms associated with polygons and polyhedral.
2. Identify all the reflection and rotational symmetries of a given two-dimensional or three-dimensional figure.
3. Use a geometry set to construct basic geometric shapes, create and manipulate angles and line segments.
4. Correctly use adjectives for angles and work with the corresponding relationships.
5. Measure length, angle size, area and volume in standard units.
6. Use formulas to find measurements of circumference, area, and volume.
7. Apply the Pythagorean Theorem to solve right triangle problems.
8. Create an artistic tessellation to demonstrate how a given figure can tessellate a plane or space.
9. Solve basic probability problems including examples involving permutations and combinations.
10. Explain mathematical concepts at an elementary school level.

3. Required Materials

Suggested Texts: Reconceptualizing Mathematics for Elementary School Teachers by Judith Sowder, Larry Sowder, and Susan Nickerson. Freeman, 2014.



Course Content: Chapters

16. Polygons
17. Polyhedra
18. Symmetry
20. Similarity
22. Transformation Geometry
23. Measurement Basics
24. Area, Surface Area, and Volume
25. Counting Units Fast: Measurement Formulas
26. Special Topics in Measurement
27. Quantifying Uncertainty
28. Determining More Complicated Probabilities
33. Special Topics in Probability

Additional topics: A selection of recreational math topics

4. Course Content and Schedule

(see above)

5. Basis of Student Assessment (Weighting)

- (a) Assignments: 10%
- (b) Term Tests: 40%
- (c) Final Examination: 50%

The final exam will cover the entire course and will be 3 hours long

6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

7. Recommended Materials to Assist Students to Succeed Throughout the Course

N/A

8. College Supports, Services and Policies

Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @

<http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

A. GRADING SYSTEMS <http://camosun.ca/about/policies/index.html>

The following two grading systems are used at Camosun College:

1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

B. 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/index.html> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.