



College & Career Prep. – School of Career & Education Access

MATHEMATICS 20-3 (MATH20-3)

Section J

COURSE OUTLINE

FALL 2013

Course Description

MATHEMATICS 20-3

MATH 20-3

5 credits, 16 weeks, 6 hours / week

This course is intended for students wishing to pursue post-secondary studies in trades, certified occupations or direct entry into the workforce. It covers the following aspects of mathematics – communication, connections, mental math and estimation, problem-solving, reasoning, technology, visualization and critical thinking.

The curriculum is delivered through projects, activities and problems set in real-world contexts.

Course Hours, Instructor Contact Information, Office Hours

Course Hours: Monday (9:00-11:00), Tuesday (9:00-11:00), Thursday (10:00-11:00)

Instructor: Allen Fung

E-mail: allen.fung@keyano.ca

Phone Number: 780-559-2047

Blackberry: 780-215-4877

Office: Janvier Learning Centre / online

Office Hours: Monday (12:00-1:00/3:00-4:00), Tuesday (3:00-4:00),
Wednesday (12:00-1:00), Thursday (12:00-1:00)

Required and Recommended Resources

- Mathworks 11 (2012) Pacific Educational Press
- Geometry set
- Scientific calculator
- Supplemental Instructor materials and hand-outs

Learner Outcomes

Students in Mathematics 20-3 are expected to meet the following learner outcomes:

- Solve problems that require the manipulation and application of formulas related to slope and rate of change.
- Demonstrate an understanding of slope as rise over run and rate of change by solving problems.
- Solve problems that involve creating and interpreting line graphs including bar graphs, histograms, line graphs and circle graphs.
- Solve problems that involve SI and imperial units in surface area measurements and verify the solutions.
- Solve problems that involve SI and imperial units in volume and capacity measurements.
- Solve problems that require the manipulation and application of formulas related to volume, capacity, and surface area.
- Solve problems by applying proportional reasoning and unit analysis.
- Solve problems that involve two and three right triangles.
- Solve problems that involve scale.
- Model and draw 3-D objects and their views.
- Draw and describe exploded views, component parts, and scale diagrams of simple 3-D objects.
- Demonstrate an understanding of simple and compound interest.
- Demonstrate an understanding of financial institution services used to access and manage finances.
- Demonstrate an understanding of credit options, including credit cards and loans.
- Solve problems that require the manipulation and application of formulas related to simple interest and finance charges.
- Solve problems that involve personal budgets.
- Demonstrating appreciation of diversity of thought, expression, and opinion.

Tentative Schedule

WEEK	DATES	UNIT	TOPIC	TESTS
1 & 2	Sept. 4 – 13	1	Slope and Rate of Change Rise over Run; Grade, Angle of Elevation and Distance; Rate of Change.	Sept 13
3 - 5	Sept. 16 – Oct 4	2	Graphical Representations Broken Line Graphs; Bar Graphs; Histograms; Circle Graphs.	Oct 4
6 - 8	Oct 7 - 21	3	Surface Area, Volume and Capacity Surface Area of Prisms; Surface Area of Pyramids, Cylinders, Spheres & Cones; Volume and Capacity of Prisms & Cylinders; Volume & Capacity of Spheres, Cones & Pyramids.	Oct 21
8 - 9	Oct 22 – Nov 1	4	Trigonometry of Right Triangles Solving for Angles, lengths and Distances; Solving Complex Problems in the Real World.	Nov 1
10-12	Nov 4 - 18	5	Scale Representations Scale Drawings and Models; 2-D Representations; 3-D Representations.	Nov 18
12 -13	Nov 19 – 29	6	Financial Services Choosing an Account; Simple and Compound Interest; Credit Cards & Store Promotions; Personal Loans, Lines of Credit & Overdrafts.	Nov 29
14 & 15	Dec 2 - 13	7	Personal Budgets Preparing to Make a Budget; The Budgeting Process; Analyzing a Budget.	Dec 13
16	Dec 16-20		Final Exams	TBA

***Please Note:** This course outline may be modified at the instructor’s discretion to facilitate unforeseen time constraints.

Evaluation

Course Evaluation

Module Assignments and Tests	70%
Final Examination	30%
TOTAL	100%

Keyano College Grading System (from Credit Calendar)

Descriptor	4.0 Grade Scale	Percentage Scale
Excellent	4.0	96% - 100%
	4.0	90 % - 95 %
	3.7	85 % - 89 %
Good	3.3	81 % - 84 %
	3.0	77 % - 80 %
	2.7	73 % - 76 %
Satisfactory	2.3	69 % - 72 %
	2.0	65 % - 68 %
Minimum Prerequisite	1.7	60 % - 64 %
Poor	1.3	55 % - 59 %
Minimum Pass	1.0	50 % - 54 %
Failure	0.0	0 % - 49 %

- A minimum grade of C-, or 60%, is required for progression from one level to another
- A grade of D will allow you to pass a course, but it is not sufficient to allow you to move to the next level.
- A grade of C or better, 65% or more, is required in the 13, or 23 level courses to be acceptable as a prerequisite to a 30 level.
- A grade of C or better, 65% or more, is required in the 33 level courses to meet the requirements to obtain a Keyano High School Equivalency.

Course Evaluation Late Policy

- Assignments are due at the **beginning of class** on the scheduled due date, any assignments submitted beyond the start of class will be counted as late and mark deduction will apply. Please ensure your assignment has been accounted for by submitting it electronically to your instructor.
- Late assignments will be subject to a 10% mark reduction per day to a limit of four business days, after which the assignment will receive a grade of zero.
 - Weekends and holidays will be counted as '1 business day' for the purposes of late mark calculation.
- Extenuating circumstances or absences beyond the student's control may warrant, *at the instructor's discretion and permission*, an extension or opportunity to submit a makeup assignment.

Performance Requirements for Students & Relevant Keyano College Policies

1. Student Attendance (from Credit Calendar)

Regular, punctual attendance is necessary for success at Keyano College and on the job after graduation. Students are responsible for attending all learning activities in their courses on a regular and punctual basis. Excessive or inexcusable absences can result in poor or failing grades, loss or reduction of sponsor allowances, and/ or probation or suspension. Students are responsible for knowing the attendance policy of their course and/or program.

Attendance Notes (from Instructor)

- Please notify your instructor of absences via e-mail, voice mail, telephone, or text message (preferably in advance of the absence); if your absence will be for more than one class day, please communicate the extended absence to your instructor. It is the student's responsibility to seek out missed assignments / tasks that were assigned during absence in a timely manner. Your instructor encourages you to make use of their assigned office hours for this purpose.
- Medical documentation (ex: doctor's note, hospital bracelet, medical certificate) will be required for those students who have missed major assignments or exams and wish to be offered the opportunity to complete a makeup assignment or exam.

2. Academic Misconduct / Student Responsibilities (from Credit Calendar)

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own.
- The use of unauthorized aids in assignments or examinations (cheating).
- Collusion or the unauthorized collaboration with others in preparing work.

- The deliberate misrepresentation of qualifications.
- The willful distortion of results or data.
- Substitution in an examination by another person.

Penalties for academic offences may range from a verbal reprimand to dismissal from the College, and in certain circumstances may involve legal action.

- By virtue of membership in the College's academic community, students accept a responsibility to understand and abide by the Academic Regulations stated in the Keyano College course calendar.
- Student Responsibilities: Students must "refrain from unduly disturbing, disrupting or otherwise interfering" (Keyano College Credit Calendar) with the work or other activities of fellow students or staff.
- See also: Student Rights (Keyano College Credit Calendar).

3. Academic Misconduct Notes (from Instructor)

- Plagiarism is defined as "taking and using or claiming the thoughts, writings, inventions, etcetera of another person as one's own". Taking the words or ideas of another person and stating them as your own is plagiarism. When it is necessary to borrow ideas from others, you must **give credit** to the lender. You may **never** use another student's work as your own. If you are resubmitting one of your own, previously marked papers, it must be with the Instructor's approval. **Assigned work or tests showing evidence of copying or plagiarism will receive a mark of zero**, the student will be given a verbal warning and notation will be placed on the student's file. Penalties for further offences may include dismissal from the course or college. Please ensure you submit **your own original work** and not the work of a tutor, peer, or other person (including an unknown person / website / online material) for assigned work.
- Students in this course will be required to complete and submit an online learning activity that teaches students to be familiar with and understand plagiarism. Successful completion of this online activity will generate a certificate of completion – this certificate must be submitted to your instructor at the beginning of the course before any assignments are submitted for grading.

4. Final Examination

- The final examination will be three hours in length and scheduled during the final exam period. All final examinations must be written on the specified examination date, or the conditions listed in the Keyano College Calendar under "Deferred Final Examination" will apply. Students with accommodations **must** inform the instructor and the SKILL Centre of any necessary arrangements at least *three weeks in advance* of the final examination date.

Specialized Supports and Duty to Accommodate

Learner Assistance Program (LAP)

If you have been diagnosed with a Learning Disability in the past, or you feel that you would benefit from some assistance from a Disabilities counsellor, please call our office 780-792-5608 to book an appointment. Services and accommodations are intended to assist you in your course, while maintaining the academic standards of Keyano College. We can be of assistance to you in disclosing your disability to your instructor, receiving accommodations, and your overall success at Keyano College.

SKILL Centre

The SKILL Centre is a learning space in the Clearwater Campus at Keyano College where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff.

The SKILL Centre, through a variety of delivery methods, provides assistance in skill development to Keyano students. Assistance is provided by instructors, staff, and student tutors. Individuals wishing to improve their mathematics, writing, grammar, study, or other skills, can take advantage of this unique service. The SKILL Centre can be of great assistance to people seeking academic upgrading.

Janvier Learning Centre – Academic Accommodations

As a Community Access Point (CAP) to education and technology, the Janvier Learning Centre is a space designed for student use and learning. This educational space could be used for a variety of reasons. For example, it could be used as an after school study and homework space, a peer tutoring and collaborative learning space, or perhaps a place where students can work on group projects.

Please Note: Access to the Janvier Learning Centre as an after school space is dependent on the permission and scheduling of the CAP facilitator.

Important College Dates

FALL	Tuesday, September 3 rd , 2013	<ul style="list-style-type: none"> • Orientation Day
	Wednesday, September 4 th , 2013	<ul style="list-style-type: none"> • First day of classes • Tuition deposit non-refundable as of this date.
	Tuesday, September 10 th , 2013	<ul style="list-style-type: none"> • Last day to add course(s) for academic programs • Fall Semester fees due
	Tuesday, September 17 th , 2013	<ul style="list-style-type: none"> • Last day to drop course(s) for academic programs • Last day to waive KCSA Health & Dental Plan
	Friday, September 20 th , 2013	<ul style="list-style-type: none"> • Fall Awards application deadline
	Friday, October 11 th , 2013	<ul style="list-style-type: none"> • Last day to withdraw from course(s) with 50% refund of tuition fees
	Friday, October 25 th , 2013	<ul style="list-style-type: none"> • Last day to withdraw from course(s) without academic penalty
	Thursday, December 12 th , 2013	<ul style="list-style-type: none"> • Last day of classes for Academic Upgrading
	December 13 th – 19 th , 2013	<ul style="list-style-type: none"> • Final Exams for Academic Upgrading
WINTER	Monday, January 6 th , 2014	<ul style="list-style-type: none"> • Winter semester begins • Tuition deposit non-refundable as of this date.
	Friday, January 10 th , 2014	<ul style="list-style-type: none"> • Last day to add course(s) for academic programs • Winter Semester fees due
	Friday, January 17 th , 2014	<ul style="list-style-type: none"> • Last day to drop course(s) for academic programs • Last day to waive KCSA Health & Dental Plan (new winter students only)
	Friday, January 31 st , 2014	<ul style="list-style-type: none"> • Last day to withdraw from course(s) with 50% refund of tuition fees
	Friday, March 7 th , 2014	<ul style="list-style-type: none"> • Last day to withdraw from course(s) without academic penalty
	Tuesday, April 22 nd , 2014	<ul style="list-style-type: none"> • Last day of classes for Academic Upgrading
	April 25 th - April 30 th , 2014	<ul style="list-style-type: none"> • Final Exams for Academic Upgrading

College Holidays

Monday, September 2 nd , 2013	<ul style="list-style-type: none"> • Labour Day (College closed)
Monday, October 14 th , 2013	<ul style="list-style-type: none"> • Thanksgiving Day (College closed)
Monday, November 11 th , 2013	<ul style="list-style-type: none"> • Remembrance Day (College closed)
December 25 th – December 31 st , 2013	<ul style="list-style-type: none"> • Christmas Break (College closed)
Wednesday, January 1 st , 2014	<ul style="list-style-type: none"> • New Year's Day (College closed)
Monday, February 17 th , 2014	<ul style="list-style-type: none"> • Family Day (College closed)
February 24 th – February 28 th , 2014	<ul style="list-style-type: none"> • Reading Week (no classes)
Friday, April 18 th , 2014	<ul style="list-style-type: none"> • Good Friday (College closed)
Monday, April 21 st , 2014	<ul style="list-style-type: none"> • Easter Monday (College closed)
Monday, May 19 th , 2014	<ul style="list-style-type: none"> • Victoria Day (College closed)

Withdrawal Information

Students who wish to withdraw from a course or program should contact the instructor and Program Chair for academic advice and counselling. To withdraw, students must complete and submit a Change of Registration form before **Friday, October 11th, 2013** (Last day to withdraw from course(s) with 50% refund of tuition fees) or **Friday, October 25th, 2013** (Last day to withdraw from course(s) without academic penalty).

Please Note: It is your responsibility as a student to complete the forms for Withdrawal or Change of Registration, and any other required forms, before the College deadlines. Please refer to the List of Important Dates noted in your course outline.

Contact Information:

Allen Fung (Instructor)
 Office: 780-559-2047 Mobile: 780-215-4877
 E-mail: allen.fung@keyano.ca

Janet Lowndes (Program Chair)
 Office: 780-791-8967
 E-mail: janet.lowndes@keyano.ca

Authorizations

The outline for Mathematics 20-3 (Section J) Fall 2013 has been reviewed and approved by the Program Chair.

Allen Fung, Instructor

Janet Lowndes, Chair

Date Authorized

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Date Authorized

Signed copies to be delivered to:

Instructor

Office of the Registrar