

Course Outline

Course Title:	Math Fundamentals for Business Studies		
Course Number:	MATH11	Approval Date:	2019/8/30
Course Hours:	45 hours	Academic Year:	2019
Academic School:	School of General Arts & Sciences		
Faculty:	Sherra Fam - sherra.fam@flemingcollege.ca Christopher Cole - christopher.cole@flemingcollege.ca		
Program Co-ordinator or Equivalent:	Victoria Maystruk - victoria.maystruk@flemingcollege.ca		
Dean (or Chair):	Angela Pind - angela.pind@flemingcollege.ca		

Course Description

This course is a one semester study of the mathematics applicable to the business and financial community. Emphasis is placed on the significance of mathematics as a problem solving and decision making tool. It is designed to complement and reinforce learning within their program and enable students to acquire foundational skills required for competence in their field.

Prerequisites: None.

Corequisites: None.

Learning Outcomes

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

1. Apply the standard rules of BEDMAS, rounding and fractions to correctly compute calculations and solve applicable business problems.
2. Accurately perform various mathematical processes using a scientific calculator.
3. Accurately apply algebraic techniques to simplify expressions and solve equations for a specific variable.
4. Calculate the break-even point and interpret break even charts to solve applied problems.
5. Use ratios, rates and proportions to accurately solve applied business problems and conversions

6. Correctly solve merchandising math applied problems involving the concepts of selling price, list price, net price, trade discounts, markup, markdown, sale price and profit and loss.
7. Correctly perform percent conversions and calculations and solve applied problems.
8. Use percent increase and decrease formula to solve applicable business problems.
9. Solve problems involving the concepts of simple and compound interest and their applications.
10. Solve simple ordinary annuities for future value, present value, number of payments and periodic payment using manual and Microsoft Excel techniques.
11. Solve applied business problems using simple ordinary annuity formula and concepts.
12. Construct an amortization table and perform computations associated with amortization of debts involving ordinary simple annuities
13. Students will be able to explain and demonstrate course theory definitions and principals.

Learning Resources

MANDATORY OPTIONS:

1.) **TEXTBOOK:** Fundamentals of Business Mathematics in Canada; Jerome/Shemko, McGraw Hill Education (3rd edition). Various options are available - please discuss with your instructor before purchase.

2.) **CALCULATOR:** A scientific or financial calculator is required. Sharp EL-531X is recommended. See your course instructor to discuss options before purchase.

Usage of cellphone calculators, laptop calculators or other smart devices are not permitted during assessments.

Assessment Summary

Assessment Task	Percentage
Quizzes	20%
Assignments	7%
Tests	73%

Student Success: Policies and Procedures

Mutually, faculty and learners will support and adhere to college Academic Regulations, and Student Rights and Responsibilities. The following policies and guidelines have been developed to support the learning process.

Please click on the link for information about:

- [Academic Integrity \(2-201A\)](#)
(<https://department.flemingcollege.ca/hr/attachment/7750/download>)
- [Accessibility for Persons with Disabilities \(3-341\)](#)
(<https://department.flemingcollege.ca/hr/attachment/5619/download>)
- [Grading and Academic Standing \(2-201C\)](#)
(<https://department.flemingcollege.ca/hr/attachment/7752/download>)
- [Guidelines for Professional Practice: Students and Faculty](#)
(<https://flemingcollege.ca/PDF/guidelines-for-professional-practice-students-faculty.pdf>)
- [Student Rights and Responsibilities \(5-506\)](#)
(<https://department.flemingcollege.ca/hr/attachment/269/download>)

If you will need academic accommodations (for example if you have a learning disability, mental health condition such as anxiety or depression or if you had an IEP in high school), please contact the [Accessible Education Services \(AES\)](#) department (<https://department.flemingcollege.ca/aes/>) to meet with a counsellor.

Alternate accessible formats of learning resources and materials will be provided, on request.

Program Standards

The Ministry of Training, Colleges and Universities oversees the development and the review of standards for programs of instruction. Each college is required to ensure that its programs and program delivery are consistent with these standards, and must assist students to achieve these essential outcomes.

This course contributes to Program Standards as defined by the [Ministry of Training, Colleges and Universities](#) (MTCU). Program standards apply to all similar programs of instruction offered by colleges across the province. Each program standard for a postsecondary program includes the following elements:

- **Vocational standards** (the vocationally specific learning outcomes which apply to the program of instruction in question);
- **Essential employability skills** (the essential employability skills learning outcomes which apply to all programs of instruction); and
- **General education requirement** (the requirement for general education in postsecondary programs of instruction that contribute to the development of citizens who are conscious of the diversity, complexity and richness of the human experience; and, the society in which they live and work).

Collectively, these elements outline the essential skills and knowledge that a student must reliably demonstrate in order to graduate from the program. For further information on the standards for your program, follow the MTCU link (www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/)

Detail Plan

Term:	2019 Fall
Faculty:	Christopher Cole - christopher.cole@flemingcollege.ca Sherra Fam - sherra.fam@flemingcollege.ca
Program Co-ordinator or Equivalent:	Victoria Maystruk - victoria.maystruk@flemingcollege.ca
Dean (or Chair):	Angela Pind - angela.pind@flemingcollege.ca
Academic Planning and Operations Department:	Janice Miller - janice.miller@flemingcollege.ca

Learning Plan

Wks/Hrs Units	Topics, Resources, Learning, Activities	Learning Outcomes	Assessment
Week 1	Course Introduction Numerical Computation Review Averages Fractions using a calculator	1,2	
Week 2	Business Applications of Percent	2,7,8,13	Quiz #1 (covers Week 1)
Week 3	Ratio & Proportion, Literal Equations and their Business Applications	1,2, 3, 5, 13	Quiz #2 (covers Week 2)
Week 4	Ratio & Proportion, Literal Equations and their Business Applications Merchandising Math Part 1 - Trade Discounts D2L Practice Pretest available for Test #1 (covers Weeks 1, 2, 3)	1,2, 6, 13	Quiz #3 (covers Week 3)
Week 5	TEST #1 (20% - covers Weeks 1, 2, 3) Merchandising Math Part 2 - Cash Discounts	1,2, 6, 13	TEST #1 Quiz #4 (completed on D2L - covers Week 4)
Week 6	Merchandising Math Part 3 - Selling Price, Markup, Markdown, Profit/Loss	1, 2, 4, 6, 13	Quiz #5 (covers Week 5)
Week 7	Merchandising Math Part 4 - Break Even Analysis	1,2, 9, 13	Quiz #6 (completed on D2L - covers Week 6)

Wks/Hrs Units	Topics, Resources, Learning, Activities	Learning Outcomes	Assessment
Week 8	INDEPENDENT STUDY WEEK D2L Practice Pretest available for Test #2 (covers Weeks 4, 5, 6)		Quiz #7 (completed on D2L - covers Week 7)
Week 9	TEST #2 (25% - covers Weeks 4, 5, 6, 7) Simple Interest and Applications	1,2, 9, 13	TEST #2
Week 10	Compound Interest, Effective Rate of Interest and other Applications	1,2, 9, 13	Quiz #8 (covers Week 9)
Week 11	Simple Ordinary Annuities D2L Practice Pretest available for Test #3 (covers Weeks 9 and 10)	1,2,11, 13	Quiz #9 (covers Week 10)
Week 12	TEST #3 (23% - covers Weeks 9 and 10) Simple Ordinary Annuities - Solving applicable problems using Microsoft Excel Bring Your Own Device (BYOD) week. If you have a laptop it will be helpful this week in both lecture and seminar.	1,2, 10, 11, 13	TEST #3 Quiz #10 (completed on D2L - covers Week 11) Excel Assignment will be distributed his week and it will be due Week 14
Week 13	Amortization of Loans and Schedules	1, 2, 12, 13	Quiz #11 (covers Week 12)
Week 14	Amortization of Loans and Schedules (continued) D2L Practice Pretest available for Test #4 (covers Weeks 11-14)	1, 2, 12, 13	Excel Module Assignment Due - 5% Quiz #12 (covers Week 13 and 14)
Week 15	Review TEST #4 (15% - covers weeks 11-14)	1, 2, 12, 13	TEST #4

Assessment Requirements

Assessment Task	Date/Weeks	Course Learning Outcome	Percentage

Assessment Task	Date/Weeks	Course Learning Outcome	Percentage
4 Theory Tests	Week 5 - (20% - covers Weeks 1, 2, 3) Week 9 (23% - covers Weeks 4, 5, 6) Week 12 (15% - covers Weeks 7, 9, 10) Week 15 (15% - covers Weeks 11,12,13,14)	1-13	75%
Weekly Quizzes best 10 @ 2% each Quizzes completed in class are #1, 2, 3, 5, 8, 9, 11, 12 Quizzes completed on D2L are # 4, 6, 7, 10	Weekly Quizzes Quizzes are either held in seminar or are completed on D2L depending on the specific week. This will be announced in class and is detailed in the Course Outline learning sequence.	1-13	20%
Excel Module Assignment - completed and submitted to the course page and as a printed copy.	Week 14 - Excel Assignment Due (Distributed in Week 12)	10	5%

A minimum mark of 50 must be attained to pass during the 15 weeks of the course - there are no credit recovery options

Exemption Contact

PLAR options and contact for this course: Contact the Registrars office for information or to enroll for a PLAR.

Information about the Transfer Credit process can be accessed through your myCampus Portal under the Registrar's Office and Resources Tabs or by contacting the Transfer Credit Coordinator, (transfercredit@flamingcollege.ca) in the Registrar's Office.

Prior Learning and Assessment and Recognition (PLAR)

PLAR uses tools to help learners reflect on, identify, articulate, and demonstrate past learning which has been acquired through study, work and other life experiences and which is not recognized through

formal transfer of credit mechanisms. PLAR options include authentic assessment activities designed by faculty that may include challenge exams, portfolio presentations, interviews, and written assignments. Learners may also be encouraged and supported to design an individual documentation package that would meet the learning requirements of the course. Any student who wishes to have any prior learning acquired through life and work experience assessed, so as to translate it into a college credit, may initiate the process by applying through the Registrar's office. For more information please click on the following link: <http://flemingcollege.ca/admissions/prior-learning-assessment-and-recognition>

Course Specific Policies and Procedures

It is the responsibility of the student to retain this course outline for future reference. Course outlines may be required to support applications for advanced standing and credit transfer to other educational institutions, portfolio development, PLAR and accreditation with professional associations.

The following are the mathematics department's expectations regarding student academic responsibilities. These expectations were compiled in consultation with mathematics faculty and appear in all mathematics course outlines.

- **Student Attendance:** Students are expected to attend all classes each week. Students are expected to bring calculators and required learning materials to each class. Students are solely responsible for catching up on course work when absent. This includes collecting course materials (handouts, assignments, etc.) and catching up on missed classroom work. Individual faculty will provide more specific expectations for attendance early in the semester.
- **Student Lateness:** Students who are late for class are a disruption to their classmates and have a negative impact on the learning environment. Your faculty member will share his/her late policies early in the semester. For reasons relating to classroom management late students may be refused entry. Lateness in general is unacceptable and will be dealt with on an individual basis.
- **Due Dates/Missed Assessments:** Refer to the Class Absence Operating Policy (2-205). Unapproved missed tests, quizzes, assignments or other assessments will be given a grade of ZERO. Students are required to follow course norms for submission requirements; alternate forms of submission will not be accepted.
- **Academic Integrity:** The principle of academic honesty requires that all work submitted for evaluation and course credit be the original, unassisted work of the student. Cheating, including sharing resources or information about quizzes/tests, copying, purchasing or collaborating on work, except for group projects arranged and approved by the faculty member, or otherwise submitting work that is not the student's own violates this principle and will result in initiation of the College's Academic Integrity Policy (Operating Procedure #2-201A). Full details of the policy, procedure, violation types and forms can be found at: <https://department.flemingcollege.ca/academic-integrity/>.

- Final Grades: Final grades in this course are assigned based on the level of academic achievement which corresponds to the assessment components as cited in this course outline. Faculty members will not offer additional evaluation activities beyond those cited in this course outline.
- Use of cellphones, smart devices or other electronics are only allowed in lecture/seminar at the discretion of the faculty, and not permitted during assessments. Devices need to have notifications turned off (Silent Mode).
- The teaching staff reserves the right to modify the course sequence to better meet the needs of the student group and to facilitate student learning.
- Your success in this course will be directly related to your regular attendance and out-of-class practice and study.
- Calculators: Students must have an appropriate calculator for their course. This can be determined after discussion in Week One with the faculty. Students are responsible for knowing how to use their calculator independently on assessments.
- Tutoring and Academic Skills: Tutoring and Academic Skills is available at both campuses. Students may arrange for a math tutor and/or attend weekly Math Labs (help sessions).