

Introductory Mathematics for Economics I

AP/ECON 1530 3.0 – Fall 2026 – Sections C & E

Section C: Monday & Wednesdays (location) 1:00 - 2:20 PM

Section E: Tuesdays & Thursdays (location) 10:00 - 11:20 AM

Instructor Information

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Course Description

Mathematics puts the M in STEM and provides the foundation for science, technology, engineering, and mathematical economics. Students in BUEC, ECON, and FBEC therefore need strong mathematical skills to succeed. These include algebra, multiplicative reasoning, word problems, and calculus – all of which are covered in this course. You should expect a *review* of these skills through practice and applications to economics. Note the word “review”: the Department of Economics expects students to enter ECON1530 with strong algebra skills. If you have not taken calculus in high school, or if you have been out of school for some time, you should expect to devote considerable time to ECON1530, put aside more than three hours of homework per week. You may also wish to consider taking ECON1520 first for additional preparation.

Why You Should Work Hard in ECON1530

- Algebra matters beyond this course: students who complete algebra are more than twice as likely to graduate from college.*
- Strong algebra skills are also linked to better labour-market outcomes, including a greater likelihood of earning income in the top quartile.†
- Research consistently finds a strong relationship between mathematical preparation and success in economics.
- Regular practice matters more than cramming. The more problems you solve yourself, the more fluent and confident you will become.

Requirements and Exclusions

Prerequisite: Grade 12U Advanced Functions or equivalent.

Co-requisites: AP/ECON 1000 3.00 or AP/ECON 1010 3.00, or equivalent.

Recommended completion: high-school calculus or equivalent OR ECON1520 – Foundations of Math Analysis.

Course credit exclusions: SC/MATH 1000 3.00, SC/MATH 1013 3.00, SC/MATH 1300 3.00, SC/MATH 1505 6.00, SC/MATH 1513 6.00, SC/MATH 1530 3.00, SC/MATH 1550 6.00, GL/MATH/MODR 1930 3.00. Note: Acceptable course substitutes are available in the Calendar.

*U.S. Department of Education, “Foundations for Success: The Final Report of the National Mathematics Advisory Panel,” 2008

†*ibid.*

Course Format

This course is a flipped or reverse classroom, which means lecture videos are watched outside class time while class time focuses on applying the concepts learned from these videos. Course materials can be found on eClass: <https://eclass.yorku.ca/eclass>.

Required Textbook

“Essential Mathematics for Economics Analysis”, Knut Sydsæter, Peter Hammond, Arne Strøm and Andrés Carvajal, 5th, 6th, or 7th Editions, Pearson Education Limited, 2026 (2021) (2016).

Approximate cost of the current 7th edition: \$159.99. Prices for used and older editions vary.

This textbook is a very helpful resource. It is available in the York Bookstore for \$159.99 + Tax. As of September 1, it was also available through Amazon for \$130.21. Students are welcome to use a second-hand copy of the textbook. Most of the lecture notes and many class practice problems are derived from it. Homework problems are at the back of each section and chapter. Solutions are at the back of the book. These problems will be similar to quiz, test, and exam questions.

Required Software

ALEKS Math 6-week Subscription – Contains many practice problems and term test 1. Algebra skills are highly correlated with undergraduate success in economics, and ALEKS can help you learn. The cost of a six-week subscription is \$30.00 at the YU Bookstore.

Why use ALEKS Math? ALEKS (Assessment and LEarning in Knowledge Spaces) is an adaptive online learning system that identifies what you know, targets the topics you are ready to learn, and periodically reassesses you to promote retention. Questions are free-response rather than multiple choice, and ALEKS is available online at any time. ALEKS helps you strengthen the mathematical skills needed for economics. Research shows that performance in ALEKS is associated with university success, while strong algebra skills predict success in economics. ALEKS has also received several SIIA CODiE awards for mathematics instruction and assessment. https://www.aleks.com/about_aleks/overview

Required Technology

- Paper and pencil will be helpful for completing and submitting graded tasks during class.
- A laptop, tablet, or desktop is required for ALEKS and eClass quizzes and tests. ALEKS is not accessible by smartphone.
- Reliable internet connection to complete online quizzes and lectures.

Office Hours

You are welcome to visit me to discuss ECON1530, mathematics, economics, careers, or related questions.

Mondays: 10:00–11:00 AM **Tuesdays:** 12:00–1:00 PM

Office hours are held in **VH 1052**. They will not be held during Reading Week or the final exam period; alternative hours will be posted on eClass. You may also email me to arrange an appointment.

Email Etiquette

If you have a question about course content (e.g., a math problem), please ask me during office hours. I generally do not answer questions about course content by email. When email is necessary, please use your York University email account or the email account associated with your eClass login. Messages from other accounts may not reach my inbox. Please use professional, polite language and address me as “Professor McKeown.” In the subject line, include your course code and section number. In the message, include your full name as it appears on eClass, your preferred name (if different), and your student number. For emails that require a response, **I will normally reply within three business days**. If you have not heard from me after three business days, please send a brief follow-up.

Evaluations

Evaluation	Date	Duration	Details	Weight
Term Test 1	Oct 3	90 mins	ALEKS	
Term Test 2	Oct 31	90 mins	Paper	
Term Test 3	Nov 21	90 mins	Paper	
Term Tests (best 2 of 3)	–	–	–	40%
In-Class Participation	Weekly	–	eClass	20%
Final Exam	Dec 10–23	120 mins	Exam room	40%

Note: Term tests are held outside regular class time.

Important Details

- Only your best two of three term tests count toward your final grade. Your lowest term-test percentage will be dropped.
- In-class participation is worth **20%** of your final grade. Participation activities will be completed during regular class meetings.
- There are 23 classes for participation. Only 20 will count toward your final grade. This allows for occasional absences or circumstances that prevent you from completing an activity.
- Because participation activities are designed to support the learning that takes place during class, they cannot be completed outside the scheduled class meeting.
- Term Test 1 will be completed using ALEKS in computer lab DB-2114, DB-2116, and DB-2118.
- Term Tests 2 and 3 and the exam will be written on paper; expect short, written-answer questions.
- The final exam is cumulative.
- Bring your York Student ID Card to all in-person tests and exams. Failure to present valid identification may result in a **grade of zero**.

Missed Assessments

- Missed in-class activities cannot be made-up and will receive a grade of zero.
- One missed term test may serve as your dropped test; any additional missed term test will receive a grade of zero.

- Deferred final exams will be granted only in exceptional circumstances and require a formal petition. For more details, visit: <https://www.yorku.ca/laps/econ/undergraduate-programs/academic-resources/departments-policies/deferred-standing/>

Frequently check eClass for the latest information on tests, make-up tests, and the final exam. Information changes due to circumstances and unforeseen events. **Religious accommodation** is available. You must notify the instructor no later than **14 days** prior to the test.

Grading

Historically, the average grade across all sections of ECON1530 is a C+ (65-69 on the York scale). 'Curving' your grades is at the discretion of the instructor and the Department of Economics. This curve may increase or decrease your grade.

Flipped Classroom and In-Class Activities

This course uses a **flipped classroom** format. Before each class, you should:

- watch the assigned lecture videos; and
- attempt the related practice problems on eClass or ALEKS.

Class time will focus on applying what you have learned. We will work through examples together, and you will spend substantial time solving problems yourself using **pen and paper**. The more preparation you complete before class, the more useful the in-class practice will be. Class time gives you the opportunity to:

- work with and learn from your classmates,
- practise problems with an instructor available to help, and
- receive timely feedback on your progress.

Participation Grades and Class Attendance

Most classes will end with approximately 30 minutes of individual or group work. These activities are intended to give you an opportunity to practise the material covered in class.

- Each class activity is worth **one participation point**.
- To earn the point, you must attend the class, complete the assigned activity, submit your work, and sign the attendance sheet.
- Your answers need not be correct. Full credit is awarded for a **legitimate and thoughtful attempt**.
- Simply signing the attendance sheet without participating in the class activity does not earn credit.
- The lowest three participation scores will be dropped. This allowance is intended to cover occasional illness, appointments, or other unavoidable absences.
- Your participation grade will equal the percentage of available participation points you earn after these drops.
- Students who arrive more than 10 minutes late will not receive the participation point for that class.

Where to Find Help with ECON1530

SNACK – Student Numeracy Assistance Centre at Keele

ECON 1530 is a challenging course for students. The Centre has many useful resources including: workshops, online content, and drop-in peer tutoring. Research shows that students who attend SNACK peer tutoring earn significantly higher grades than those who do not. The peer tutoring schedule is available at: <https://www.yorku.ca/laps/snack/>

PASS – Peer Assisted Study Sessions

Peer Assisted Study Sessions (PASS) have been successfully implemented around the world as an effective strategy for success in challenging courses. All students are strongly encouraged to attend weekly PASS sessions to foster their success in these courses. Research shows that students who attend PASS sessions regularly have a significantly higher success rate than those who do not.

<https://www.yorku.ca/laps/support/pass-program/>

Generative AI Policy

You may use websites, software, and Generative AI for ungraded homework and practice. When possible, use Study and Learn or similar tutoring modes that give hints and ask questions rather than simply providing answers.

Class is a pencil-and-paper environment unless instructed otherwise. This means no AI may be used during class or for graded work. Tests and exams are also completed without these tools, so you must learn to solve problems independently.

Academic Honesty and Integrity

Unauthorized or commercial distribution of course content

Course materials should only be used by students enrolled in this course. As a student in this course, you may not publish, post on an Internet site, sell, or otherwise distribute any of this work without the instructor's express permission. Unauthorized or commercial use of these materials is strictly prohibited. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course, or fall under an exception or limitation in Canadian copyright law. Copying this material for distribution (e.g. uploading material to a commercial third-party website, or online sharing of course material with people outside of the course) may lead to a charge of misconduct under York's Code of Student Rights and Responsibilities and the Academic Conduct Policy and Procedures. In addition, you may face legal consequences for any violation of copyright law.

Your Responsibilities

Academic integrity requires honesty, trust, fairness, respect, responsibility, and courage in your academic work. You are responsible for understanding and following York University's academic integrity requirements. At the beginning of the course, please complete SPARK's Academic Integrity module:

<https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

Academic dishonesty includes cheating, plagiarism, unauthorized collaboration, impersonation, and helping another student commit an academic offence. Suspected breaches of academic integrity will be reported and handled according to York University's academic integrity policies.

How can you demonstrate academic integrity?

- **Class activities:** Attend class in person to earn participation credit. Do not submit an in-class activity if you are not present.
- **Tests and exams:** Follow all examination rules and invigilation instructions. Do not use or possess unauthorized devices, materials, or assistance.
- **Collaboration:** Collaborate only when explicitly permitted. You may discuss and share work within your assigned group when instructed, but may not share answers with others.
- **Your work:** Submit your own work and do not obtain, provide, or represent another person's work as your own.
- **Responsibility:** If you are uncertain about what is permitted, ask before submitting your work.

Students who engage in academic dishonesty may be subject to disciplinary action under York University's academic integrity policies. **Lack of familiarity with these policies is not a defence against their application.**