The Minor in Industrial Economics is open to all B.Eng. students and other undergraduate degree students not majoring in Economics who have successfully completed ECOR 3800 and SYSC 3200 while registered in a B.Eng. program. It is designed for engineering students who wish to learn the aspects of economics that are most relevant to their major.

To remain in good standing and ultimately graduate with the “Minor in Industrial Economics” designation noted on their official University transcript and diploma, students must maintain a minimum minor CGPA determined by 4.0 required credits in Economics and Engineering. See Section 7.4 (Table 2 in particular) of the “Academic Regulations of the University” part of the Undergraduate Calendar for details.

Courses of Study
ECON 1000 – Introduction to Economics
ECON 2020 – Intermediate Microeconomics I or ECON 2009 – Managerial Economics
ECOR 3800 – Engineering Economics
SYSC 3200 – Industrial Engineering
Any three industrial-economics-related electives:
ECON 2030 – Intermediate Microeconomics II
ECON 3300 – Public Policy Toward Business
ECON 3360 – Introduction to Labour Economics
ECON 3365 – Introduction to Industrial Relations
ECON 3509 – Development Planning and Project Evaluation
ECON 3804 – Environmental Economics
ECON 4005 – Operations Research II
ECON 4020 – Advanced Microeconomic Theory
ECON 4301 – Market Structure and Firm Behaviour
ECON 4309 – Applied Industrial Economics
ECON 4407 – Project Evaluation

ECOR 3800 – Engineering Economics
Introduction to engineering economics; cash flow calculations; methods of comparison of alternatives; structural analysis; replacement analysis; public projects; depreciation and income tax; effects of inflation; sensitivity analysis; break-even analysis; decision making under risk and uncertainty.
Prerequisite: third-year status in Engineering.

SYSC 3200 – Industrial Engineering
Techniques of operations research for decision-making in complex engineering systems. Linear programming, network models, PERT, integer programming, dynamic programming, queuing systems and inventory models. Problem solving is emphasized.
Prerequisites: MATH 1004, MATH 1104, and ECOR 1606 or SYSC 1100.

ECON 4005 – Operations Research II
Dynamic programming, inventory models, queuing, simulation, non-linear programming.
Prerequisites: ECON 4004 or MATH 3801 or SYSC 3200; and ECON 2220 (or equivalent, or STAT 2605 or STAT 3502) with a grade of C- or higher.

ECON 4301 – Market Structure and Firm Behaviour
Various theoretical and empirical studies of firm and market organization with emphasis on the pricing, advertising, investment and locational behaviour of firms in imperfectly competitive markets.
Prerequisite: ECON 2030 with a grade of C- or higher.
OVERVIEW

The Minor in Economics is open to all undergraduate degree students not pursuing a Major in Economics. This option allows students to pursue their primary academic interest in another area while at the same time learning the fundamentals of economics.

To remain in good standing and ultimately graduate with the “Minor in Economics” designation noted on their official University transcript and diploma, students must maintain a minimum minor CGPA determined by 4.0 required credits in Economics. See Section 7.4 (Table 2 in particular) of the “Academic Regulations of the University” part of the Undergraduate Calendar for details.

Courses of Study

ECON 1000 – Introduction to Economics
ECON 2101 – Intermediate Macroeconomics for Non-Mathematical Majors or ECON 2102 – Intermediate Macroeconomics I

Any four electives drawn from any of the following:
ECON 2030, ECON 2103, ECON 2210, ECON 2220, ECON 3001, ECON at the 3000 or 4000 level, IPAF 2000

COURSE DESCRIPTIONS

ECON 2001 – Intermediate Microeconomics for Non-Mathematical Majors

The main topics in microeconomic theory presented in a relatively non-technical manner (e.g., without the requiring knowledge of calculus) with illustrations of their applications. Not open to students in any Economics, B.Com., B.C.S., B.Eng., B.I.D., B.Math., or B.Sc. program. Precludes additional credit for ECON 2102 and ECON 2103.

Prerequisite: ECON 1000 or FYSM 1003, or permission of the Department of Economics.

ECON 2101 – Intermediate Macroeconomics for Non-Mathematical Majors

The main topics in macroeconomic theory presented in a relatively non-technical manner (e.g., without the requiring knowledge of calculus) with illustrations of their application. Not open to students in any Economics, B.Com., B.C.S., B.Eng., B.I.D., B.Math., or B.Sc. program. Precludes additional credit for ECON 2102 and ECON 2103.

Prerequisite: ECON 1000 or FYSM 1003, or permission of the Department of Economics.

ECON 3300 – Public Policy Toward Business

The interaction of government and business in the Canadian economy. Reasons for government involvement in selected public policy areas. Topics covered may include competition policy, regulation of firms by boards and commissions, environmental regulation, and public enterprise.

Prerequisite: ECON 1000 or FYSM 1003.

ECON 3360 – Introduction to Labour Economics

Basic principles of labour economics including market, institutional, and sociological forces. Technology and labour demand, wage systems, human capital, internal wage structure, market discrimination, female labour-force entry, wage-price spiral, household labour supply, and wage determination.

Prerequisite: ECON 1000 or FYSM 1003.

FOR MORE INFORMATION

… about economics at Carleton, please visit carleton.ca/economics or write to the Economics Undergraduate Supervisor, Professor Christopher Gunn, at chris.gunn@carleton.ca.