

Area of Interest: Business

Business - Supply Chain and Operations

Ontario College Diploma

Program Code: 1331X01FWO

2 Years

Ottawa Campus

Our Program

Drive business efficiency through a career in supply chain and operations.

The two-year Business - Supply Chain and Operations Ontario College Diploma prepares you to support organizations in planning, coordinating and managing the flow of goods and services from point of origin to point of consumption.

In this program you explore ways to integrate end-to-end supply chain functions from raw material suppliers to the final customer. You use industry-standard enterprise resource planning software to integrate and manage supply chain processes in simulated business environments. In addition, you consolidate your knowledge and skills to strategically integrate various e-business trends into contemporary business scenarios. Build your supply chain and operations skills through real world examples and case studies in areas such as:

- procurement and sale of goods, services and materials
- production planning, scheduling and resource allocation

As a graduate you may find employment in a broad range of domestic and international organizations and industries including for-profit and not-for-profit groups, public and private corporations, and small and medium businesses. You may work with business processes in:

- inventory management
- production scheduling
- material planning (MRP)
- capacity planning
- production control
- purchasing
- distribution
- project management
- change management
- related computer systems and technologies, such as SAP

Employment

Graduates may find employment as business data analysts, supply chain coordinators/managers/analysts, demand and supply planners, buyer/purchasing/procurement coordinators/managers, operations coordinators/managers/analysts, inventory coordinators/managers/analysts, materials and logistics coordinators/managers, warehouse and distribution coordinators/managers, quality coordinators/managers/analysts, process improvement coordinators/managers, or project coordinators/managers.

Learning Outcomes

The graduate has reliably demonstrated the ability to:

- Examine the connections between strategic objectives, stakeholder expectations, and the functions, processes and roles within a supply chain, to support decision-making, problem-solving and completion of tasks.
- Support supply chain business operations using accounting and financial analysis.
- Identify compliance issues within a supply chain to inform business operations.
- Identify risk mitigation tools and strategies to support business operations within a supply chain.
- Contribute to the acquisition and sale of goods, services and materials in accordance with best practices and stakeholder expectations across a variety of industries.
- Contribute to the planning and scheduling of material requirements and resource allocation, and the management of inventories, for efficient production and fulfillment of customer orders and returns.
- Coordinate the efficient handling and movement of goods, services, materials and related information within a supply chain.
- Contribute to the identification and management of continuous improvements to functions and processes within a supply chain.
- Use available technologies to enhance work performance and support supply chain functions, processes, transactions and communications.
- Monitor relevant trends, emerging technologies, and local and global economic, political and environmental issues to enhance work performance and support management decisions.
- Perform tasks in accordance with policies and procedures for workplace health and safety and industry standards and best practices for professional, ethical and accountable conduct and communications.
- Collaborate with a diversity of stakeholders to facilitate business operations within a supply chain.
- Participate in facilitated learning opportunities for personal, career and professional development.
- Identify and apply discipline-specific practices that contribute to the local and global community through social responsibility, economic commitment and environmental stewardship.

Program of Study

Level: 01	Courses	Hours
BUS2301	Business Computer Applications	42.0
ECO2305	Microeconomics	42.0
ENL1813B	Communications I	42.0
MGT2319	Skills for Academic & Business Success	42.0
MGT2320	Material and Operations Management	42.0
MGT2328	Introduction to Management Fundamentals	42.0
QUA0002	Business Mathematics	42.0
Level: 02	Courses	Hours

ACC2310	Accounting Concepts I	42.0
BUS2303	Database & Advanced Excel Concepts	42.0
ECO2306	Macroeconomics	42.0
ENL1823B	Communications 2	42.0
MGT2372	B2B Purchasing Management	56.0
Choose one from equivalencies: Courses		Hours
GED1331	General Education Elective	42.0
Level: 03	Courses	Hours
MGT2227	Introduction to Project Management	42.0
MGT2315	Scheduling & Planning of Resources	56.0
MGT2367	Logistics Using SAP	56.0
MGT2381	Human Resources Management	42.0
QUA0003	Quantitative Methods I	42.0
Choose one from equivalencies: Courses		Hours
GED1331	General Education Elective	42.0
Level: 04	Courses	Hours
FIN2230	Finance	42.0
LAW1702	Business Law	42.0
MGT2308	Manufacturing Simulation (SAP) and Production Planning	56.0
MGT2377	E-Business Strategy and Technology Decision-Making	56.0
MKT2317	Marketing	42.0
Choose one from equivalencies: Courses		Hours
GED1331	General Education Elective	42.0

Fees for the 2025/2026 Academic Year

Tuition and related ancillary fees for this program can be viewed by using the Tuition and Fees Estimator tool at <http://www.algonquincollege.com/fee-estimator>

Further information on fees can be found by visiting the Registrar's Office website at <http://www.algonquincollege.com/ro>

Fees are subject to change.

Additional program related expenses include:

Books cost approximately \$600 to \$800 per level and can be purchased from the campus store. For more information visit <http://www.algonquincollege.com/coursematerials>

Supply chain industry software costs approximately \$65 per level.

Admission Requirements for the 2026/2027 Academic Year

College Eligibility

- Ontario Secondary School Diploma (OSSD) or equivalent
- Mature Student status (19 years of age or older and without a high school diploma at the start of the program). Eligibility may be determined by academic achievement testing, for which a fee will be charged.

Program Eligibility

- English, Grade 12 (ENG4C or equivalent)
- Mathematics, Grade 11 (MBF3C or equivalent)
- Applicants with international transcripts must provide proof of the subject specific requirements noted above and may be required to provide proof of language proficiency. Domestic applicants with international transcripts must be evaluated through the International Credential Assessment Service of Canada (ICAS) or World Education Services (WES).
- IELTS-International English Language Testing Service (Academic) Overall band of 6.0 with a minimum of 5.5 in each band OR TOEFL-Internet-based (iBT)-overall 80, with a minimum of 20 in each component: Reading: 20; Listening: 20; Speaking: 20; Writing: 20 OR Duolingo English Test (DET) Overall 110, minimum of 110 in Literacy and no score below 95.

Application Information

BUSINESS - SUPPLY CHAIN AND OPERATIONS **Program Code 1331X01FWO**

Applications to full-time day programs must be submitted with official transcripts showing completion of the academic admission requirements through:

ontariocolleges.ca
60 Corporate Court
Guelph, Ontario
N1G 5J3
1-888-892-2228

Students currently enrolled in an Ontario secondary school should notify their Guidance Office prior to their online application at <http://www.ontariocolleges.ca/>

Applications for Fall Term and Winter Term admission received by February 1 will be given equal consideration. Applications received after February 1 will be processed on a first-come, first-served basis as long as places are available.

International applicants please visit this link for application process information:
<https://algonquincollege.my.site.com/myac360/s>

For further information on the admissions process, please visit:

Admissions - Registrar's Office <https://algonquincollege.com/ro/admissions>

Course Descriptions

ACC2310 Accounting Concepts I

Students are provided with the basics of financial accounting whether they are interested in becoming a practitioner or are looking to broaden their knowledge of how to properly interpret financial information. Emphasis is on what accounting information is, understanding the accounting cycle, recording transactions, and the preparation and analysis of financial statements.

Prerequisite(s): none
Corequisite(s): none

BUS2301 Business Computer Applications

The knowledge gained in this course provides students with a solid foundation for future learning in other studies, and in business. Students learn a variety of tasks in Windows file management. Students also learn tasks and produce assignments in Microsoft Office for PC. Web-based software running computer-based simulations and assessments are used to support and enrich the learning experience. It is strongly recommended that students use a PC. Mac students may be required to install and learn additional software to successfully complete the course.

Prerequisite(s): none

Corerequisite(s):none

BUS2303 Database & Advanced Excel Concepts

Databases and data analysis are pervasive in today's work environments. Students study advanced Excel topics, including pivot tables, filters, tables, what-if analysis tools, data validation and error checking and preparing Excel data for use in databases. Students also learn how to design and use a database using Microsoft Access, and import data from Excel. Emphasis is on extracting information from Access databases by creating and using queries. A combination of lectures, practical demonstrations, in-class and out of class assignments and review simulations contribute to the students' learning experience. Mac students, please note that Microsoft Access will not run on a Mac without additional software.

Prerequisite(s): DAT5758 or BUS2301

Corerequisite(s):none

ECO2305 Microeconomics

Knowledge of contemporary microeconomics issues is essential to understanding the world we live in. Students examine fundamental microeconomic principles with an emphasis on the use of economic models to analyze economic developments accurately and objectively. Students examine the role of prices and competitive markets in the allocation of resources, firm behaviour and market structures, as well as evaluate the effects of government intervention in the economic marketplace.

Prerequisite(s): none

Corerequisite(s):none

ECO2306 Macroeconomics

Knowledge of contemporary macroeconomic issues is essential to understanding the world we live in. Students investigate fundamental macroeconomics principles with an emphasis on the use of economic models to analyze economic developments accurately and objectively. Through a combination of instruction and practical application, students examine unemployment, inflation and economic growth, as well as evaluate government use of fiscal and monetary policy in dealing with these key macroeconomic issues. In addition, Canada's international economic relationships are explored. Individual assignments and formal examinations are used to assess student knowledge of key objectives.

Prerequisite(s): none

Corerequisite(s):none

ENL1813B Communications I

Communication remains an essential skill sought by employers, regardless of discipline or field of study. Using a practical, vocation-oriented approach, students develop stronger grammar and business-writing skills to become effective business communicators. Through a combination of lectures, exercises, and independent learning, students practise writing, speaking, reading, listening, locating and documenting information, and using technology to communicate professionally. Students develop and strengthen communication skills that contribute to success in both educational and workplace environments.

Prerequisite(s): none

Corerequisite(s):none

ENL1823B Communications 2

Students continue to expand their practical writing and speaking skills for successful communication in business. Using real-life scenarios and research skills, they produce informal reports and proposals, deliver presentations to a live audience supported by technology, and create a job-search package. Students create professional documents, such as information reports, progress reports, justification/recommendation reports, summary reports, and minutes of meetings to develop up-to-date writing skills. The job search package includes employment-readiness skills, resumes, persuasive cover letters and interview techniques. In all written work, students continue to develop and enhance their grammar skills to meet professional, workplace standards.

Prerequisite(s): ENL1813B

Corerequisite(s):none

FIN2230 Finance

The fundamentals of financial management are necessary for strong financial decision-making. Students develop an understanding of the goals of financial management, financial analysis and planning, financial forecasting, working capital management, capital budgeting concepts including present value and cashflow analysis. Build on your knowledge of basic accounting and economic concepts through a combination of in class lectures, practical exercises and use of computer assisted tools.

Prerequisite(s): ACC2201 and BUS2301 or ACC2310 and BUS2301 or ACC1100 and ACC1207 and BUS2301

Corerequisite(s):none

GED1331 General Education Elective

Students choose one course, from a group of general education electives, which meets one of the following five theme requirements: Arts in Society, Civic Life, Social and Cultural Understanding, Personal Understanding, and Science & Technology.

Prerequisite(s): none

Corerequisite(s):none

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Students choose one course, from a group of general education electives, which meets one of the following five theme requirements: Arts in Society, Civic Life, Social and Cultural Understanding, Personal Understanding, and Science & Technology.

Prerequisite(s): none

Corerequisite(s):none

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Prerequisite(s): none

Corerequisite(s):none

LAW1702 Business Law

Students are prepared for a business environment increasingly affected by laws. They learn how laws must be understood and applied by management in the conduct of business. They also learn how to analyze a business situation from a general legal perspective. Emphasis is placed on methods of dispute resolution, contracts, torts, employment law, methods of carrying on business, creditors' rights, sale of goods and marketing law.

Prerequisite(s): none

Corerequisite(s):none

MGT2227 Introduction to Project Management

Managers must know how to successfully plan and execute projects on time and within budget. Students learn the basic concepts of project management based on the best practices in this field. The tools and techniques include learning to identify project priorities, assigning and managing resources, budgeting, tracking progress and communicating with stakeholders. Hands-on practice is provided using project scheduling software as a means to understand the work breakdown structure, critical-path activities and resource loading. Case studies are used in order to demonstrate the practical application of each concept to the planning and completion of project activities.

Prerequisite(s): none

Corerequisite(s):none

MGT2308 Manufacturing Simulation (SAP) and Production Planning

Every business requires a sound production plan to optimize productivity and maintain an efficient flow within their supply chain. Effective planning is a complex process that includes a wide range of activities to ensure the maximum utilization of resources and help to fulfill orders without interruptions. Students focus on the creation and execution of Material Resources Planning, the development of Sales and Operations Plans, Master Production Schedules, and production orders. Further, students use SAP in simulation to manage a virtual company, exploit various strategies and affirm their knowledge of business processes.

Prerequisite(s): MGT2367 and MGT2372

Corerequisite(s):none

MGT2315 Scheduling & Planning of Resources

The scheduling and planning of resources and materials is at the heart of an overall MRPII or ERP system. This knowledge is required for one to work effectively in today's manufacturing environment. Students review two main focuses on the process of developing and using a production plan, a master production schedule, and the planning processes used in today's manufacturing environment. Through lectures, readings and hands-on learning students examine demand management, Sales and Operations (SOP) planning and master production schedule. Moreover, students will use demand metrics to create aggregate plans, master production schedules and Materials Resource Plans (MRP) for components.

Prerequisite(s): MGT2320

Corerequisite(s):none

MGT2319 Skills for Academic & Business Success

Business and higher education have evolved and so have the skills necessary to succeed in these new and dynamic environments. Students explore the strategies, tools, and theories needed to thrive throughout their college career and chosen professions. Reflections, workshops, mini-lectures, and learning activities support the holistic development of each student. A focus is placed on establishing effective habits as a team member and developing self-awareness.

Prerequisite(s): none

Corerequisite(s):none

MGT2320 Material and Operations Management

Operations managers make tactical decisions in support of carrying out the vision and strategies for businesses in the supply chain and/or in service production. Students are introduced to the responsibilities and current tools of operations and supply chain managers in manufacturing and non-manufacturing organizations. Topics include quality management, layout management, location, inventory management, MRP and ERP, and JIT/Lean.

Prerequisite(s): none

Corerequisite(s):none

MGT2328 Introduction to Management Fundamentals

Today's business owners and managers must not only recognize but excel in achieving organizational objectives for long term business success. This course examines the fundamental people and business management functions within a small to medium-sized enterprise, including best-practices related to recruitment, selection, onboarding, compensation, performance development, performance management, and leading a diverse workforce. Students will review the underlying management functions that support effective business operations within the framework of federal and provincial employment law. Learning is applied through the completion of a simulation, case studies, and a major project where students examine various organizational strategies leading to effective decision making and achievement of business objectives. Upon successful completion of this course, students will understand how to create a work culture that supports innovation and change.

Prerequisite(s): none

Corerequisite(s):none

MGT2367 Logistics Using SAP

In supply chain management, logistics plays an essential role. Logistics is used to plan and coordinate the movement of products safely, effectively, and in a timely manner. Students gain a practical understanding of inbound, outbound and internal warehousing processes. Topics covered include channels of distribution, order processing, materials flow, and reverse logistics. Students also use a SAP ERP system to complete various transactions associated with logistics processes.

Prerequisite(s): MGT2372

Corerequisite(s):none

MGT2372 B2B Purchasing Management

Purchasing management is at the heart of effective supply chain management . Buyers and Purchasing Managers define purchasing processes, evaluate suppliers to ethically source goods and services, assist other departments to define their requirements, and manage requisitions and purchase orders. Through lectures, readings, demonstrations, and hands-on learning, students examine the role and the responsibilities of the purchaser in public and private sector organizations. Students also use a SAP ERP system to complete various transactions and reports associated with the purchasing process.

Prerequisite(s): MGT2320

Corerequisite(s):none

MGT2377 E-Business Strategy and Technology Decision-Making

Due to globalization, increased product sophistication and increased consumer demands, organizations are embracing supply chain technologies to be more effective and competitive. Through online learning and research, students are introduced to the concepts and growth of technology from the past, the present and the future. Students analyze management information systems (MIS), customer relationship management tools (CRM), data warehousing, and the use of artificial intelligence. Students also examine the importance of data governance and data integrity and its impact on the supply chain.

Prerequisite(s): MGT2364 or MGT2227

Corerequisite(s):none

MGT2381 Human Resources Management

Human capital is a critical organizational resource contributing to the organizational strategy and operational success through progressive human resources management. Students are introduced to human resources management areas of practice including the role of human resources management within the organizational strategic context, human resources planning, employee recruitment and selection, training and development, compensation and benefits, and employee

and labour relations. Furthermore, students are introduced to occupational health and safety, international human resources management, organizational behaviour, and relevant legislation.

Prerequisite(s): none

Corerequisite(s):none

MKT2317 Marketing

Students are provided an overview of the marketing functions used in an organization, which serves to support them in their chosen business career. Students learn the strategic market planning process in both the business-to-consumer and business-to-business market areas. Elements of their learning include environmental scanning, the ability to identify and segment markets, understanding buyer behaviours and the importance of marketing research. This results in the understanding of a coordinated marketing program (product, price, promotion and distribution channels). The relationship marketing has with other business functions and environments in which organizations' marketing professionals operate is also examined. These concepts are viewed within the context of traditional and e-business consumer and business markets.

Prerequisite(s): none

Corerequisite(s):none

QUA0002 Business Mathematics

Students review basic arithmetic and algebra, as well as mathematic tools and concepts required for solving problems found in a business environment. Problem-solving areas include cost-volume-profit analysis, linear functions and systems of equations, index numbers, markup and markdowns, terms of invoicing and business finance.

Prerequisite(s): none

Corerequisite(s):none

QUA0003 Quantitative Methods I

Mathematical methods are used in fields such as finance, marketing, accounting and operations management in order to help make reasonable business decisions. Students are introduced to basic statistical measures of central tendencies and dispersions. Students use basic probability and different probability distribution to problem-solve. Decision theory is used to solve problems in situations of certainty and uncertainty. Students study the components of time series and make forecasts. Students apply course content within Excel functions.

Prerequisite(s): QUA0002

Corerequisite(s):none