

BT

Business/Technology

Noah Austin, Department Chairperson

In the third millennium, businesses are global, technological change is constant, and information is the most valuable commodity. The individuals and nations who design and control information will determine our future.

The focus of the Business/Technology Department at Conestoga is to teach students to understand and use contemporary technology and the information it generates, organizes, transmits and receives. Teachers of business, technology, television, computer assisted design, and computer-generated graphics work together to offer courses that prepare students for leadership roles in the global community. Courses offered by the department provide exposure to software applications and include: personal and business finance and accounting, television production, digital graphics, digital and traditional photography, Mechanical and Electrical Engineering, and Structural and Environmental Engineering.

Note: A double asterisk (**) next to a course name indicates that a student may take the course more than one time for credit. Course content and instruction will be individual-

Accounting 1

Grades 10, 11, 12 Semester 6 periods/cycle .5 credit
6009 BT, EL, MA* Software: MS Excel

This course provides an introductory understanding of financial accounting concepts and practices. It is a great first step that can lead to success in a variety of careers and is especially valuable for anyone planning to enter accounting or other business fields, including finance, economics, management and international business. Emphasis is placed on the accounting cycle, including analyzing business transactions, managing receivables and payables and preparing financial reports. GAAP (Generally Accepted Accounting Principles) and ethics are examined throughout the course as they relate to each area. In class, students will develop strong technology skills using MS Excel. The Personal Finance course is a recommended prerequisite. Students using personal computers will need access to the required software. **This course does not currently meet NCAA eligibility standards for math.**

Accounting 2

Grades 10, 11, 12 Semester 6 periods/cycle .5 credit
6019 BT, EL, MA* Software: MS Excel
Prerequisite: Accounting 1

Students continue to build on the accounting foundation in this advanced course. They will explore the role of accounting information in evaluating corporate financial performance and the importance of this information in executive decisions. Through accounting simulations and case studies, students will develop skills in analytical thinking and apply their knowledge of accounting to real-world situations. This course also focuses on applying ethics and integrity to accounting decisions to demonstrate that a business decision is not just about the numbers. Students using personal computers will need access to the required software. **This course does not currently meet NCAA eligibility standards for math.**

Personal Finance

Grades 9, 10, 11, 12 Semester 6 periods/cycle .5 credit
6109 BT, EL Software: MS Excel, Word, Power Point

Learning by trial and error is not the way to develop good financial management habits. This course offers the fundamental tools students need to manage the money flowing through their wallets. Using Microsoft Excel software, students learn the day-to-day financial skills needed to live well in our free enterprise system. They use spreadsheets and various Internet sites to prepare personal budgets, reconcile bank statements, shop for loans, manage credit card debt, calculate insurance costs and prepare a state and federal tax return. Students also explore various investment strategies, including risk management and tracking a stock portfolio. This course is beneficial for all students in grades 9 - 12 and is recommended before taking any other business course. Students using personal computers will need access to the required software.

Business Law and Ethics

Grades 11, 12 Semester 6 periods/cycle .5 credit
6049 BT, EL

This course approaches business from an ethics-related perspective, providing practical information and problem solving opportunities that develop in students the knowledge and skills necessary for survival in our law-saturated society. The curriculum includes case studies, roleplays, small group exercises, and visual analysis activities. Topics covered include torts, negligence, strict liability, contracts, warranties and consumer responsibility with auto and housing laws. Particular attention will be paid to ethical standards and their influence on law and overall business practices. Ethical issues we will investigate include acceptable risk, intellectual property, worker's rights, whistle-blowing, outsourcing, and ethical issues in marketing.

Entrepreneurship

Grades 11, 12 Semester 6 periods/cycle .5 credit
6129 BT, EL Software: MS Word, Excel, Power Point and Internet Access

In today's world economy there is an unparalleled rise in entrepreneurship. This course will help students understand what it is like to be an entrepreneur and the risks involved in starting and operating a business enterprise. Students will learn strategies of business management, marketing and raising capital for launch and growth. Emphasis is placed on the development of a comprehensive business plan which incorporates all of the financial, organizational and operational aspects of the business. It is recommended that students complete the accounting course before taking Entrepreneurship.

Business Promotion and Marketing

Grades 9, 10, 11, 12 Semester 6 periods/cycle .5 credit
6139 BT, EL

Students in Business Promotion and Marketing learn the fundamentals of business marketing, Product promotion, and advertisement in today's fast-paced business environment. Examining case studies of real-world examples, students will grasp the theory behind advertising and consumer behavior. This course will span, traditional brand marketing, celebrity endorsements, Sports marketing, online analytics, and social media strategies. Students will create and deliver a marketing plan and pitch for a fictional business, including but not limited to, a website, business card, company logo, and a brief commercial. This course is recommended for students pursuing a career in business and marketing.

Digital Photography

Grades 9, 10, 11, 12 Semester 3 periods/cycle .25 credit
8505 BT, VP, EL (Lab Fee-\$20.00)

This course explores visual and technical aspects of digital photography. The curriculum includes camera operation, lighting, elements and principles of design, composition and layout. Students will learn to download, organize, edit, manipulate and prepare photos for print and digital communication. Software includes Adobe Photoshop, iPhoto and others. **This course is also offered for core elective credit in VPA. Access to a digital camera is highly recommended.**

Advanced Digital Photography**

Grades 9, 10, 11, 12 Semester 6 periods/cycle .5 credit
8519 BT, VP, EL (Lab Fee - \$20.00)
Prerequisite: Photography 8505

This course provides students with the opportunity to effectively communicate ideas and information via digital photography. Students completing this course successfully will be able to demonstrate proficiency using a digital camera and manipulating images using Adobe Photoshop. Students will demonstrate advanced darkroom techniques through the use of personal imagery. Students wishing to repeat advanced photography are encouraged to enroll in Studio Art I. **This course is also offered for core elective credit in Visual and Performing Arts. Access to a digital camera is highly recommended.**

Additional Courses

3D Sculpture and Mixed Media
Advanced 3D Sculpture and Mixed Media
Graphic Design and Animation

Please refer to the Visual and Performing Arts Department section of this publication for course descriptions and prerequisites for these elective courses.

Computer Aided Drafting and Design**

Grades 9, 10, 11, 12 Semester 6 periods/cycle .5 credit
8529 BT, EL Software: Vectorworks

Students in Computer Aided Drafting and Design will learn to use drafting and design computer software programs for a variety of drawing and design problems. After a computer hardware/software orientation, students will learn to read and render several types of technical drawings. That which is learned will then be applied in the design process. Students will work individually and in small groups on a number of architectural and engineering design activities. Working in both 2D and 3D programs, students will create mock-ups, prototypes and scale models using 3D printers, a 3D scanner and a laser engraver. This course is recommended for students interested in a career in engineering.

Mechanical and Electrical Engineering

Grades 9, 10, 11, 12 Semester 6 periods/cycle .5 credit
8629 BT, EL (Lab Fee - \$20.00)

This advanced course is designed for students with interests in technology, science, or engineering. Students will apply a problems-based approach to authentic situations in robotic technology, Mechatronic technology, communications, electronics, and transportation. Solutions will be designed on computers and built in the fabrication lab using a CNC milling machine, a laser engraver, 3D printing machines and traditional tools. Students will work in teams to learn research and development procedures, testing and analysis techniques and applied technology. Topics include robotic engineering, mechanical engineering, electrical engineering, and transportation engineering.

Structural and Environmental Engineering

Grades 9, 10, 11, 12 Semester 6 periods/cycle .5 credit
8639 BT, EL (Lab Fee - \$20.00)

This advanced course is designed for students with interests in technology, science, or engineering. Students will apply a problems-based approach to authentic situations in structural design, construction technology, communications, product design, manufacturing, and environmental engineering. Solutions will be designed on computers and built in the fabrication lab using a CNC milling machine, a laser engraver, 3D printing machines and traditional tools. Students will work in teams to learn research and development procedures, testing and analysis techniques and applied technology. Topics include structural engineering, design engineering, manufacturing systems engineering, and environmental engineering.

Beginning Television

Grades 9, 10, 11, 12 Semester 3 periods/cycle .25 credit
8585 BT, EL

Students will the basic principles of journalism, newsgathering, and video editing using Final Cut software. They will gain an appreciation of the television medium and develop standards of judgment that apply both to their work and to the commercial media. Students will complete hands-on video projects using live production, field production and post-production editing techniques. They will function as writers, talent, directors, camera operators and video editors. Both interpersonal and on-air communication skills will be stressed. This course is the prerequisite for other television courses and is recommended for those interested in careers in communications.

Intermediate Television

Grades 9, 10, 11, 12 Semester 6 periods/cycle .5 credit
8579 BT, EL

Prerequisite: Beginning TV

Students will produce video and learn elements of advanced journalistic style and the standards involved in producing for the cable network. Students will function as writers, talent, directors, camera operators and video editors. Both interpersonal and on-air communication skills will be stressed. This course is designed as a bridge between the basic skills presented in Beginning Television and the demands of production required in the advanced classes. Intermediate Television is the prerequisite for Advanced Television Production and is recommended for those interested in careers in communications.

Advanced Television Production/Broadcast Journalism**

Grades 10, 11, 12 Year 6 periods/cycle 1 credit
8595 BT, EL

Prerequisite: Intermediate TV

This class will meet first period so students can produce and broadcast the morning announcements program, *Good Morning 'Stoga*, during homeroom. In addition, students enrolled in this class will produce packages that will air on both *Good Morning 'Stoga* and T/E News. This course will require commitment and responsibility on the part of the student. A strong background in control room procedure and/or journalistic writing, producing, shooting and editing will be necessary.

Advanced Screen Writing and Video Production**

Grades 10, 11, 12 Year 6 periods/cycle 1 credit
8599 BT, EL

Prerequisite: Intermediate TV

Students will produce narrative, experimental, music video, documentary and other types of short films for T/E TV programming and other outlets. They will script, pitch, storyboard, shoot and edit each project. This course will require substantial group collaboration, commitment and planning, directing, editing and lighting/sound. Students should have an interest in publishing and sharing their work.