CONS246 - Health and Safety Examines the issue of safety in construction projects in the Province of Ontario. This course will also provide the student with the knowledge and skills necessary to administer effective First Aid in a emergency re - artificial respiration techniques, splinting, trans- portation procedures, haemorrhage control, breathing and heart emergencies (CPR). The Workplace Hazardous Materials Information System (WHMIS) program will be reviewed in detail.

COOP110 - Co-Operative Education 1 Provides an opportunity for the student to develop personal, educational and career goals and plans. The student will gain a broader perspective of the changing nature of the workplace and the relationship of work to the individual and to society and in the process, will develop skills in the preparation of job resumes, job search strategies and tools, interview techniques and job performance evaluations.

DRAF110 - Architectural Drafting Develops the skills necessary to read and produce architectural working drawings. A number of exercises and small projects will be produced using industry standards of practice.

DRFT281 - Architectural Drafting Prepares a set of construction drawings for a single storey commercial or institutional building designed in course Arch 213.

DRFT311 - Architectural Drafting Prepare a set of construction drawings for an industrial building based on the design concepts in ARCH 316.

DRFT458 - Architectural Drafting Students will prepare a set of construction drawings for the design project described in ARCH 417 Architectural Design.

DRFT558 - Architectural Drafting Students will prepare a set of construction drawings for the multi-use project as designed in ARCH512.

DRFT658 - Architectural Drafting Students will prepare a set of construction drawings for the multi-storey residential building as described in ARCH 609.

ECON614 - Building Economics This course is an introductory course in building economics. Topics will included the purchase and sale od Real Estate, income properties, economics of development, feasibility studies, and budget estimating methods for various types of buildings.

ENVR333 - Environmental Engineering (Electrical) Students will study the principles of Electric power and lighting, including the requirements for determination of service size, building wiring and power distribution and the design of efficient lighting layouts.

ENVR403 - Environmental Engineering (Hvac) Introduces the student to the principles involved in the design of heating, ventilating, and air-conditioning systems for buildings with regard to human comfort, and economics.

ENVR613 - Environmental Engineering - Plumbing The student will study the design of plumbing systems for buildings including water supply, and drainage in conjunction with plumbing materials. This includes the sizing of piping for storm drainage, sanitary stacks, waste stacks, and vents.

MATS125 - Materials and Methods Introduction to the study and composition of materials and methods of construction used in site work, concrete, masonry, metals, wood and plastics.

MATS225 - Materials and Methods Introduction to the study and composition of materials and methods of construction used in thermal and moisture protection, doors, windows and glass, acoustics and finishes, selected special construction, and conveying systems.

MATS305 - Materials and Methods Study of selected building components and systems through the development of architectural details integrated with architectural, structural, and environmental courses.

MATS405 - Materials and Methods Students will continue the study of building components and systems through the development of architectural details integrated with architectural, structural, and environmental courses.

MECH254 - Mechanics of Materials Students study centroids, moment of inertia, section moduli, radii of gyration; shear, tensile and compressive stresses; statically determinate beams; shear force diagrams, bending moment diagrams; design of beams for bending moment, shear, deflection and lateral bending; beam formulae; and columns, slenderness ratio and concentric loads.

MTHM128 - Architectural Mathematics studied in this course pertain to measured data, fundamental algebraic operations, trigonometry, and the plane geometry of triangles and circles. Solutions to practical problems using mensuration techniques. A solid grasp of these topics will be of value to the student in the core subject areas of the program.

QUAN315 - Quantities and Estimating Introduces the student to the general principles and practices of Quantity Surveying and Estimating as they relate to the building industry.

SPEC500 - Specifications This course introduces the student to the use of specifications in the construction industry through the study of specification writing, contract documents, and master specifications.

SPEC601 - Specifications Introduces the student to advanced techniques of specification writing through the use of electronic editing and computer-based master specifications.

STAT104 - Statics Students will study forces, types of force systems, vectors, resultants, components, equilibrants, simple structures, method of joints, force diagrams, moments, equilibrium, beam and truss reactions, concentrated loads, and distributed loads.

STRU311 - Structural Engineering 1 Introduces the student to the study of design procedures for the selection of structural steel members for the frame of an industrial or commercial building. The members will include owsj, beams, girders, and columns. Foundation design will also be studied. The course will be related to the third semester Architectural Drafting project.

STRU411 - Structural Engineering II Students will study the design procedures for the selection of masonry units used in load-bearing, plain, and reinforced masonry construction. The student will also study the design procedures for the sizing of decks, joists, beams, girders, trusses, and columns used in timber buildings. The course will be related to the fourth semester Architectural Drafting project.

STRU511 - Structural Engineering III Student will study the design and theory of reinforced concrete components. The emphasis will be placed on application of the course material to the design of reinforced concrete components used in buildings. The course will be related to the fifth semester Architectural Drafting project.

STRU611 - Structural Engineering IV Continuation of the study of structural engineering principles in which emphasis will be given to design procedures for framing systems commonly used in highrise residential construction. This course is designed to assist the student in the production of drawings related to the sixth semester Architectural Drafting project.

SURV136 - Surveying Students will learn the basic method and skills for measuring distance and difference in elevation. The student will be shown how to apply these skills in detail location methods and plotting techniques, enabling them to prepare contour and site plans.

Application Procedure

In order to apply for admission to this program an applicant must complete an "Application for Admission to Ontario Colleges of Applied Arts and Technology" form and submit this form to the:

Ontario College Application Service
P.O. Box 810, Guelph, Ontario, N1H 6M4
1-888-892-2228

Application Forms and Applicant Guidebooks are available at Ontario Secondary Schools, at Ontario Colleges of Applied Arts and Technology and at the Ontario College Application Service office.

Admission to the College

Complete information concerning admission to programs at Fanshawe College may be found in the Central Admission Publication located in Registrar and Student Awards Services, Fanshawe College.

The College reserves the right to make changes in the information in this brochure without prior notice.

The College reserves the right to cancel a program, a program major or option, or a course, and to change the location and term in which programs/courses are offered because of insufficient registrations or for other budgetary reasons.

Fanshawe College

Fanshawe College is one of the largest colleges in Ontario with campuses in London, St. Thomas, Simcoe and Woodstock. Fanshawe prides itself on its modern methods and up-to-date technology that provide students with a solid education.

With over one-third of its full-time post-secondary programs combining on-the-job training with in-college study, Fanshawe is recognized as a leader in the field of co-operative education.

In addition to offering post-secondary programs in Applied Arts and Business, Health Sciences and Human Services and Technology, Fanshawe provides other educational programs such as Adult Training, Apprenticeship, and Continuing Education.

This brochure is available in alternative formats, upon request, for persons with disabilities.

For further information on admission and registration, contact:
Registrar and Student Awards Services, (519) 452-4277

For further specific program information, contact:
Civil/Architectural Division, (519) 452-4414

Fanshawe College
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London, ON, N5Y 5R6 **www.fanshawec.on.ca**

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Fanshawe COLLEGE

Architectural Technology

FANSHAWE COLLEGE

Community Driven . . .
Student Focused

Architectural Technology

A Co-Operative Education Program
A Three Year Diploma Program
Program Code: ATY1 Campus Code: LC
September Admission

The program introduces the student to the principles of design and planning, contemporary building methods, and structural and environmental engineering related to architectural construction. Individual and team projects involved with residential, industrial, commercial, and institutional buildings, assist in the development of knowledge and skills required for careers in the architectural field. The program also includes CADD and co-op work experience.

Graduates of this program have direct transferability of 30-60 credits to the Bachelor of Science Post-Diploma program at Athabasca University.

Career Opportunities

The graduate may find career opportunities with professional architectural and engineering firms, industrial and commercial corporations, and government agencies. After suitable experience graduates will be qualified for such positions as architectural assistant, job captain, senior draftsperson, field supervisor, specification writer, clerk of works, inspector, technical representative and self-employment.

ATY11	Level 1	Hrs/Wk
ARCH103	Architectural Design	3.0
ARCH115	Computer Aided Design and Drafting I	3.0
ARCH122	Architectural Presentation Techniques	2.0
ARCH215	Computer Aided Design and Drafting	3.0
DRAF110	Architectural Drafting	3.0
MATS125	Materials and Methods	3.0
MTHM128	Architectural Mathematics	3.0
STAT104	Statics	3.0

ATY12	Level 2	Hrs/Wk
ARCH213	Architectural Design	3.0
ARCH214	Introduction to the Building Code	1.0
ARCH222	Architectural Presentation Techniques	2.0
CMNC155	Language and Communication Skills I	3.0
DRFT281	Architectural Drafting	6.0
MATS225	Materials and Methods	3.0
MECH254	Mechanics of Materials	3.0

ATY13	Level 3	Hrs/Wk
ARCH316	Architectural Design	3.0
ARCH317	Codes and Regulations	3.0
COOP110	Co-Operative Education 1	1.0
DRFT311	Architectural Drafting	6.0
ENVR333	Environmental Engineering (Electrical)	2.0
MATS305	Materials and Methods	3.0
QUAN315	Quantities and Estimating	2.0
STRU311	Structural Engineering 1	3.0
SURV136	Surveying	3.0

ATY14	Level 4	Hrs/Wk
ARCH416	History of Architecture	3.0
ARCH417	Architectural Design	3.0
ARCH418	Architectural Rendering	2.0
CONS246	Health and Safety	3.0
DRFT458	Architectural Drafting	6.0
ENVR403	Environmental Engineering (HVAC)	3.0
MATS405	Materials and Methods	3.0
STRU411	Structural Engineering II	2.0

ATY15	Level 5	Hrs/Wk
ARCH404	Urban Environment Studies	2.0
ARCH511	Building Science	3.0
ARCH512	Architectural Design	3.0
CMNC255	Language and Communication Skills II	3.0
DRFT558	Architectural Drafting	6.0
ECON614	Building Economics	3.0
SPEC500	Specifications	2.0
STRU511	Structural Engineering III	3.0

Note: ECON614 Offered as of Jan. 2000

ATY16	Level 6	Hrs/Wk
ARCH606	Architectural Design	3.0
ARCH621	Building Science	3.0
ARCH622	Architectural Office Procedures	3.0
CMNC355	Language and Communication Skills III	3.0
DRFT658	Architectural Drafting	6.0
ENVR613	Environmental Engineering - Plumbing	2.0
SPEC601	Specifications	3.0
STRU611	Structural Engineering IV	2.0

Program Eligibility Criteria
Required Academic Preparation

OSSD with courses at the General Level with:
- Grade 12 English
- Mathematics* ONE OF:
  - Grade 12 Mathematics for Technology
  - Grade 12 Mathematics, Advanced (preferred)
  - OAC Finite Mathematics
- Grade 11 or Grade 12 Physics (preferably Advanced)

Or
BTSD-Level 4 Certificate with:
- Level 4 Physics

Or
Pre-Technology Certificate**
Or
Ontario High School Equivalency Certificate (GED) and:
- Mathematics* ONE OF:
  - Grade 12 Mathematics for Technology
  - Grade 12 Mathematics, Advanced (preferred)
  - OAC Finite Mathematics
- Grade 11 or Grade 12 Physics (preferably Advanced)

Or
Mature Applicant with standing in the required courses stated above

Note: Applicants who lack required courses may be admitted to the program subject to appropriate prior upgrading.

Recommended Academic Preparation

- Grade 12 Mathematics, Advanced
- Grade 11 or Grade 12 Physics, Advanced
- Grade 12 English, Advanced
- Courses in Construction Technology
- Keyboarding

Applicant Selection Criteria

Where the number of eligible applicants exceeds the available spaces in the program, the Applicant Selection Criteria will be:
A. Preference for Permanent Residents of Ontario.
B. Receipt of Application by February 1st.
C. Achievement in the required academic preparation.
D. Achievement in the recommended academic preparation.

Notes:

- *Mathematics to include Algebra, Geometry, Trigonometry.
- **Students admitted to the Pre-Technology program are guaranteed admission the following year to a School of Technology career program (excluding the programs in the Information Technology Division) provided that they achieve a 'B' average in the Pre-Technology program and fulfill any other specified conditions. Normally these students are admitted to their first choice career program.
- A "Fast Track" (non co-op) version of the Architectural Technology program is available after the first year.

Advanced Standing

Credit for any course in the program will be given to students who can demonstrate that they have the required skills to meet the objectives of the course.

Other Information

It is strongly recommended that students purchase a suitable computer capable of running "AutoCad Rel.13" software in a Windows environment. Estimated Cost $2,000.

Approximate Costs (1999/2000)

Fees for:	Levels 1 & 2	Levels 3 & 4	Levels 5 & 6
	$2390.30	$2390.00	$2390.30
Books and Supplies:	$1191.00 plus optional computer $2000.00, software $ 500.00	$ 670.00	$ 507.00

Course Descriptions

ARCH103 - Architectural Design An introduction to the principles of design and planning, through study and analysis of function, circulation, space relations and activities as they relate to a simple building. Basic design principles will be studied through the students' work in preparing the design for a small single storey commercial or institutional building. Also, the students will be introduced to the basic aspects of the Ontario Building Code.

ARCH115 - Computer Aided Design and Drafting I An introduction to the basic concepts of computer aided design and drafting including an introduction to DOS, system, and disk management.

ARCH122 - Architectural Presentation Techniques An introduction to the principles of isometric and axonometric project, one and two-point perspective, shades and shadows, and their application to architectural work.

ARCH213 - Architectural Design Through the use of individual projects, this course continues the study of design by preparing sketches and presentation drawings of a steel framed commercial building of not more than two storeys in height.

ARCH214 - Introduction to the Building Code An introduction to the Building Code and other requirements affecting public safety in buildings.

ARCH215 - Computer Aided Design and Drafting This course introduces the student to the study of advanced computer aided design and drafting through the preparation of architectural drawings.

ARCH222 - Architectural Presentation Techniques Designed to allow students an opportunity for appreciation and development of drawing techniques used to illustrate buildings including composition, presentation, and rendering complete with landscaping, shading and shadows, people and automobiles using pencil, pen and ink, felt tip marker and water colours.

ARCH316 - Architectural Design This course continues the study of design principles. With given requirements and information about site conditions and spatial requirements, students will design a warehouse/office building project and prepare the required preliminary and presentation drawings.

ARCH317 - Codes and Regulations This course continues the study and use of various building codes and regulations published by national, provincial and municipal jurisdictions, and how they relate to architectural practice.

ARCH404 - Urban Environment Studies Introduces the basic principles of urban planning and the effects of urban planning upon the environment.

ARCH416 - History of Architecture Studies architectural development beginning with ancient and classical architecture, continuing with medieval and renaissance architecture, and concluding with modern architecture. Significant developments in style, technology, and techniques of construction will also be studied.

ARCH417 - Architectural Design This course continues the study of design principles. With given requirements and information about site conditions and spatial requirements, students will design a child care centre, townhouse complex or three-storey student residence and prepare the required preliminary and presentation drawings.

ARCH418 - Architectural Rendering Introduces the students to various techniques used for pro- ducing freehand sketches and presentation drawings using pencil, pen and ink, felt marker, and water colours.

ARCH511 - Building Science Students will analyze principles of building enclosure design including indoor and outdoor environment, noise control, service life of materials, heat flow and transfer, and air and smoke movement.

ARCH512 - Architectural Design Given the requirements for a project and information about site conditions, the students will continue the study of design principles by preparing preliminary and presentation drawings for a multi-use commercial building renovation. The building will be designed using an existing concrete structure and include underground parking.

ARCH606 - Architectural Design Continues the study of design principles. With given requirements and information about site conditions, the student will design and prepare preliminary sketches and presentation drawings of a multi-storey residential building project.

ARCH621 - Building Science Students will analyze principles of building enclosure design including air, moisture, and thermal control in wall, window, and roof design.

ARCH622 - Architectural Office Procedures Designed to familiarize students with the knowledge of business procedures and management principles that are applied to an Architectural project. This includes the study of topics such as professionalism, conduct, liability, contracts, office practice, bonding, insurance, scheduling, guarantees, labour relations, and project management.

CMNC155 - Language and Communication Skills I Provides the student with an opportunity to establish skills in reading, writing and editing documents for work-related and personal uses. Students will also practice important study/reading skills and apply grammar rules.

CMNC255 - Language and Communication Skills II Provides the student with the skills and knowledge required to formulate and articulate his or her responses to literature, with emphasis upon the analysis of audience, purpose, message, and prose texts.

CMNC355 - Language and Communication Skills III Permits the student to perform primary and secondary research, to shape, organize and document a formal report and to present a persuasive oral report.