

Architectural Technology

Co-operative Education Program



Architectural Technology Program Content

Graduate Profile

After successfully completing the program, students should be able to:

- Participate in pre-construction functions including data gathering, sketching and estimating to create construction documents using industry software.
- Apply codes, bylaws and regulations to ensure health and safety, fire protection, barrier free access and structural sufficiency.
- Research and apply sustainable building practices to comply with building programs such as LEED.
- Use, adapt and maximize technologies to create and manage building information.
- Integrate architectural, structural, mechanical and electrical disciplines within the building project to promote construction efficiency and coordination.
- Prepare project manuals, to delineate quality of material and workmanship.
- Assist with administering construction contracts to ensure compliance with project contract documents.
- Administer project resources by establishing, scheduling and monitoring project activities and tasks within constraints of time, costs and quality.
- Demonstrate verbal, graphic, written and interpersonal communication skills to work effectively in teams.
- Demonstrate professionalism, integrity, ethics, accountability, resourcefulness and lifelong learning.

Revised April 2018

First Year

SEMESTER 1 (16 WEEKS)	CREDIT HOURS	SEMESTER 2 (16 WEEKS)	CREDIT HOURS
Technical Communications	3	Report Writing	3
Algebra and Trigonometry	5	Building Science	4
Technical Graphics	6	Building Information Modelling Fundamentals	4
Computer Applications	2	Architectural Detailing 1	5
Surveying	4	Building Mechanical Systems	3.5
Statics and Strengths of Materials	4	Building Structural Systems	3.5
Professional Ethics	3	Building Material and Environment	3.5
WHIMS Workshop			
General Safety Training			
College Expectations			

CO-OP ED WORK TERM: Students are available for employment for up to four months, from May to August (16 weeks).

Second Year

SEMESTER 3 (16 WEEKS)	CREDIT HOURS	SEMESTER 4 (16 WEEKS)	CREDIT HOURS
Principals of Construction Documentation Codes and Standards	3	Specifications and Contract Administration	3
Building Information Modelling - Intermediate	4	Estimating and QTO	3
Architectural Detailing 2	4.5	Building Information Modelling - Advanced	4
Mechanical / Electrical Detailing	3	Architectural Detailing 3	4.5
Structural Detailing	4.5	Building Interior Detailing	2.5
Project Management Fundamentals	4	Green Buildings and Sustainability	3
		Capstone Project	1.5



Red River College has been recognized for this award-winning co-operative education program.

Free Job Bank Service!

To hire a student, contact the Civil Engineering Technology department. Your job offer will be posted exclusively to our students in total confidence, not revealing your company name. Resumes will be collected and forwarded to you. If requested, an interview room will be reserved at the College.

Students are hired quickly, so act early to avoid disappointment. This job bank service is provided at no cost to you!

Employer Advantages in Hiring Our Students

- Our students are productive immediately in the preparation or modification of construction documents, through the use of AutoCAD and Revit.
- If needed, students may be able to provide their own laptop computers with the latest versions of AutoCAD, Revit, and MS Office software installed, ready for use in your company.

- Employers have the opportunity to train students as potential future employees. Upon the student's graduation the employer is in an excellent position, based on the student's performance during the work terms, to ascertain whether to hire the student as a permanent employee.

Student Work Terms

Each year, prior to returning to class, the students are required to work a minimum of 16 weeks during the four-month work term (May to August). This work can be completed with more than one employer. The work must be in an area that will complement their programs with relevant "real world" experience. Positions must be paid employment, not work shadowing or volunteer work.

To place a co-operative education job offer, please contact the Co-operative Coordinator at:

- 204.632.2585, or
- CivilCo-op@rrc.ca, or
- by completing the electronic form at JobCentral.rrc.ca

Wage Incentives and Tax Credits for Manitoba Co-op Employers

Paid Work Experience Tax Credit

Manitoba employers can receive a Paid Work Experience Tax Credit when hiring our Co-op students and graduates. The benefits are as follows:

Co-op Students: 15% of wages/salaries, up to a lifetime of \$5,000/student

New Graduates: 15% of wages/salaries, up to a maximum of \$2,500/student for each of the first two years of employment

For more information please contact us at 204.632.2585 or CivilCo-op@rrc.ca, or contact the Manitoba Tax Office at 204.948.2115 or toll-free at 1.800.782.0771

Canada Summer Jobs

Canada Summer Jobs is an initiative of the Summer Work Experience program. It provides funding for not-for-profit organizations, public sector employers, and small businesses with 50 or fewer employees to create summer job opportunities for students between the ages of 15 and 30.

For more information call 1.800.935.5555 or go to servicecanada.gc.ca, or visit any Service Canada Centre.

Architectural Technology

Two-Year Diploma Program

The Architectural Technology Diploma program is a comprehensive, two-year, **direct entry program** consisting of four 16-week semesters. Students must also complete a four-month co-operative work term between year one and year two that will provide related and practical experience to the fields of architecture, engineering and construction. Career options available to successful graduates may include working with:

- Architects or Engineers
- Interior Designers
- Home Builders
- Contractors
- Fabricators

Students will experience a wide-ranging curriculum of courses that emphasize the learning and practical application of current design and construction techniques. Students will take advanced courses and build on competencies gained as they move from semester to semester. Courses include subjects such as:

- Building Information Modelling (Revit)
- Architectural Detailing (AutoCAD)
- Building Science
- Structural Systems
- Codes and Standards
- Project Management (MS Project)
- Specifications and Contract Administration
- Green Buildings and Sustainability

A capstone project is incorporated into the final term.

