



# RRC

# POLYTECH

## Program and Course Catalogue

FULL-TIME | WINNIPEG LOCATIONS

## IT Operations

### Overview

- Two year (20 month) diploma
- Fall (late August) and winter (January) entry dates at the Exchange District Campus; Fall entry date at the other campuses
- Locations:
  - Exchange District Campus, Winnipeg, Manitoba
  - Portage la Prairie Campus
  - Winkler Campus
  - Steinbach Campus
  - Interlake and Peguis - Fisher River Campus
- At the Exchange District Campus, classes are held on campus and online
- At the other campuses, classes are online and may require attendance on campus
- Students need to purchase a laptop
- Most courses in the program take place between 8 am and 6 pm from Monday to Friday

IT Operations professionals deliver and support the essential IT services that keep businesses running. They are service-minded professionals who put customer experience and the needs of the business first. IT Operations teams define how an organization manages software, hardware, and cloud services. They provide other IT support such as network administration, storage, information security, device management, cloud management and help/service desks.

The world of IT Operations is growing as modern organizations rely on technology to be the backbone which supports their activities. Students will develop their skills in IT Operations, enabling them to manage processes and services for clients inside and outside of the organization.

After completing the IT Operations Diploma Program, the graduate will be able to:

- Demonstrate customer experience and customer service philosophies to meet business needs.
- Apply the People, Process and Technology framework to deliver effective services.
- Apply the IT service management framework to increase information technology operational efficiency and stability.
- Interpret IT architecture to apply changes, provide support, and continually improve service.
- Demonstrate fundamental IT skills for troubleshooting and IT services support.
- Perform IT operations functions to maintain the stability of the business technology environment.
- Track current technology warranties, licenses and technology lifecycle to ensure sustainability of systems.
- Mitigate security threats to protect the business from vulnerabilities.
- Deliver IT services to provide continuity of service.

- Perform preventative maintenance and service recoveries to ensure continuity of service.
- Provide business continuity and disaster recovery processes to maintain IT services.
- Implement cloud services to support business needs and processes.
- Communicate information to various stakeholders across different channels.

## Admission Requirements

### *Your Academic History*

If your academic history includes any of the following, please visit [My Education](#) for important information: post-secondary studies at an institution other than Red River College Polytechnic; Modified (M), English as an Additional Language (E), or GED high school courses; or home schooling; international secondary (high school) studies.

The college requires transcripts verifying your complete academic history including any public or private high school, college, university, or technical institute you have attended.

Please check the [Program Overview](#) page, to see if this program is for Manitoba residents only.

#### DOCUMENT SUBMISSION

##### Upload Through Your Future Student Account

- Scan your document(s) and save the file. Ensure you keep your original documents as the College may request to see them at any time.
- Go to [apply.rrc.ca](http://apply.rrc.ca) and log in.
- Click on your application, then Supplemental Items & Documents.

If you do not have a Future Student Account or require assistance, please contact our Student Service Centre at [204-632-2327](tel:204-632-2327).

Internationally Educated Applicants - visit [www.rrc.ca/credentials](http://www.rrc.ca/credentials) for credential assessment information.

Submission of required documentation indicating proof of completion of admission requirements is due within 15 days of applying unless otherwise noted in the program's admission requirements.

### *Regular Admission Requirements*

#### 1. Grade 12

- Submit proof of graduation from or enrolment in Grade 12
  - If you provide proof of enrolment at time of application, your official final grades indicating successful completion must be submitted by July 15 for fall enrolment or by the deadline specified in your admission letter
  - If you are required to complete an English language assessment, do not submit your transcripts until requested to do so. See English Language Requirements (ELRs) for more information.
- and*

#### 2. English Language Requirements (ELRs)

- Answer this question to determine if you meet this program's ELRs:  
Have I successfully completed 3 years of full-time high school (secondary) education in Canada, the United States, or an [ELR exempt country](#) where English was the language of instruction?
  - If YES, you meet English language requirements. Apply and then submit your transcripts\* for review  
or
  - If NO, submit proof of meeting an [ELRs option](#). If you choose the English language assessment

option, review [this program's approved assessments and required levels](#).

or

- If you completed all of your education in Canada, the United States, or an [ELR exempt country](#) in English but you did not graduate high school, submit your transcripts\* for review.
- \* If your transcripts are from the USA or an [ELR exempt country](#), we will assess an [International Credentials Assessment Fee](#) to be paid before your transcripts will be reviewed.

### *Mature Student Admission Requirements*

If you are 19 years of age or older and have been out of high school for a minimum of one year at time of application, and you do not meet the regular admission requirements, you may apply under the Mature Student admission requirements.

#### 1. Academic Requirement

- High school graduation is not required, but you must have successfully completed or be enrolled in one credit in each of the following:
  - Grade 12 English (40S)
  - Grade 12 Math (40S) (Waived for 2025-2026 Academic Year)
- If you provide proof of enrolment at time of application, your official final grades indicating successful completion must be submitted by July 15 for fall enrolment or by the deadline specified in your admission letter
- If you are required to complete an English language assessment, do not submit your transcripts until requested to do so. See English Language Requirements (ELRs) for more information.

and

#### 2. Meet Regular Admission Requirement 2

## English Language Assessments

⚠ The College reserves the right to modify this information without notice or prejudice.

🕒 ASSESSMENT RESULTS MUST BE DATED NO MORE THAN TWO YEARS PRIOR TO YOUR APPLICATION DATE!

## Approved English Language Assessments

English Language Assessment	Minimum Scores for Certificates, Diplomas and Advanced Diplomas, and Post Graduate Certificates, Post-graduate Diplomas	Minimum Scores for Bachelor Degrees and Creative Communication
<a href="#">CAEL Online or In-Person</a>	Overall band score of 60	Overall band score of 70 and Writing of 60
<a href="#">IELTS Academic Level</a>	Overall 6.0 and No band below 5.5	Overall 6.5 and No band below 6.0
<a href="#">Password Skills</a>	Overall 6.0 and No band below 5.5	Overall 6.5 and No band below 6.0
<a href="#">LINC Certificate</a>	7	8
<a href="#">Duolingo Language Test</a>	115 and above+ with a min. of 95 in each section	125 and above with a min. of 100 in each section
<a href="#">New English for Academic and Professional Purposes</a>	Successful completion of the program 5 (min 70%)	Successful completion of the program 5 (min 70%)
<a href="#">PTE</a>	54 overall Min 50 in each skill	60 overall Min 55 in each skill band
<a href="#">TOEFL-ibt Academic Level</a>	80 (20L, 20S, 19R, 21W)	90 (22L, 22S, 22R, 24W)

English Language Assessment	Minimum Scores for Certificates, Diplomas and Advanced Diplomas, and Post Graduate Certificates, Post-graduate Diplomas	Minimum Scores for Bachelor Degrees and Creative Communication
<a href="#">Academic English Program for University and College Entrance Program (AEPUCE)</a>	Successful Completion	Successful Completion
CELBAN	N/A	N/A

## Who Should Enrol?

If you like technology and you are looking for an exciting career where you continuously learn new technologies, IT Operations may be the program for you. You need to be up for the challenge of problem solving and troubleshooting related to technology. Customer service is important for success in IT operations jobs, so you need to enjoy working with people. You will learn to provide excellent customer experiences to the business people who use technologies that you support.

You need fundamental computer skills such as keyboarding, managing files and folders, and using an internet browser. This program is suitable for people who have no prior related work experience or post-secondary education.

## Locations, Dates and Fees

Next Estimated Term 1 Start Date **(subject to change)**

Location	Start Date	
Roblin Centre (Prev. PSC)	Aug 25, 2025	<a href="#">Apply Now</a>
Roblin Centre (Prev. PSC)	Jan 05, 2026	<a href="#">Apply Now</a>

**Costs** **(estimates only; subject to change)**

Program/Student Fees	
Year 1	\$15,413.00
Year 2	\$9,721.00
Books and Supplies	
Year 1	\$1,737.00 <sup>1</sup>
Program/Student Fees (International)	
Year 1	\$21,827.00
Year 2	\$16,901.00

<sup>1</sup> Includes an estimate of \$1600 for a laptop

## Interlake Campus

Next Estimated Term 1 Start Date **(subject to change)**

Location	Start Date	
Selkirk	Aug 25, 2025	<a href="#">Apply Now</a>

**Costs** **(estimates only; subject to change)**

Program/Student Fees	
Year 1	\$15,331.00

Year 2	\$9,639.00
Books and Supplies	
Year 1	\$1,737.00 <sup>2</sup>

<sup>2</sup> Includes an estimate of \$1600 for a laptop

Portage Campus

Next Estimated Term 1 Start Date (subject to change)

Location	Start Date	
Portage La Prairie Campus	Aug 25, 2025	<a href="#">Apply Now</a>

Costs (estimates only; subject to change)

Program/Student Fees	
Year 1	\$15,331.00
Year 2	\$9,639.00
Books and Supplies	
Year 1	\$1,737.00 <sup>3</sup>

<sup>3</sup> Includes an estimate of \$1600 for a laptop

Steinbach Campus

Next Estimated Term 1 Start Date (subject to change)

Location	Start Date	
Steinbach	Aug 25, 2025	<a href="#">Apply Now</a>

Costs (estimates only; subject to change)

Program/Student Fees	
Year 1	\$15,331.00
Year 2	\$9,639.00
Books and Supplies	
Year 1	\$1,737.00 <sup>4</sup>

<sup>4</sup> Includes an estimate of \$1600 for a laptop

Winkler Campus

Next Estimated Term 1 Start Date (subject to change)

Location	Start Date	
Winkler Campus	Aug 25, 2025	<a href="#">Apply Now</a>

Costs (estimates only; subject to change)

Program/Student Fees	
Year 1	\$15,331.00
Year 2	\$9,639.00

<sup>5</sup> Includes an estimate of \$1600 for a laptop

Students may apply for financial assistance through the Manitoba Student Aid program. For general information on applying please call [204-945-6321](tel:204-945-6321) or [1-800-204-1685](tel:1-800-204-1685), or visit their website at [www.manitobastudentaid.ca](http://www.manitobastudentaid.ca), which also includes an online application. For detailed information, please visit one of the [RRC Polytech Student Service Centres](#) or call [204-632-2327](tel:204-632-2327). Applicants requiring financial assistance should complete their student loan applications well in advance of the class start date.

## Courses and Descriptions

Year 1	
Term 1Credit Hours	
COMM-1173 <a href="#">Communication Strategies</a>	3
COMP-1309 <a href="#">IT Service Management</a>	6
COMP-1310 <a href="#">IT Architecture and Design</a>	6
COMP-1311 <a href="#">IT Foundations</a>	6
COMP-1312 <a href="#">Customer Experience</a>	6
Term 2Credit Hours	
COMM-2172 <a href="#">Communication for the Workplace</a>	3
COMP-2041 <a href="#">IT Operations Foundations</a>	6
COMP-2042 <a href="#">IT Service Desk and Customer Support</a>	6
COMP-2043 <a href="#">People, Process and Technology</a>	6
COMP-2044 <a href="#">Security Foundations</a>	6
Year 2	
Term 3Credit Hours	
COMM-2176 <a href="#">Communication for Systems and Innovative Thinking</a>	3
COMP-2045 <a href="#">Cloud Infrastructure</a>	6
COMP-3016 <a href="#">IT Service Delivery</a>	6
COMP-3017	

Business Continuity and Disaster Recovery	6
Electives	
COMP-1701 Transforming Data Into Databases	6
COMP-1702 Introduction to Data Science and Machine Learning	6
Term 4Credit Hours	
Electives	
COOP-4003 IT Operations Co-op	6
INDP-4003 IT Operations Industry Project	6
COMM-1173 Communication Strategies <b>RPL</b>	
Everyone communicates, but are they doing it well? Communicative competence takes practice and self-awareness. In this foundational course, students will learn through discovery and project-based activities to practice approaching situations critically and collaboratively. By developing their communication skills, students will improve their interpersonal ability, intercultural competence, and digital fluency to prepare for success in the workplace and beyond. The strategies students will gain in this course will be useful throughout their program and in their chosen industry.	
COMM-2172 Communication for the Workplace <b>RPL</b>	
This foundational course focuses on essential communication skills for entering and advancing in industry. Students will develop skills for effective resumes, cover letters, and job interviews that are tailored to the specific needs of prospective employers. Additionally, students will enhance their interpersonal skills and digital fluency while applying speaking, writing, and collaboration techniques crucial for job searching, adapting to new roles, and achieving long-term career goals. Students will also develop strategies for continuous learning to remain competitive in an ever-changing job market.	
COMM-2176 Communication for Systems and Innovative Thinking <b>RPL</b>	
Students will build on the skills they practiced in Communication Strategies by focusing on the information technology sector. Students will develop their ability to think at a systems level by analyzing problems to come up with innovative solutions. Learners will collaborate to manage, analyze, and communicate information to various audiences across different channels. This collaboration will involve active listening, networking, and persuasion strategies in an information technology context.	
Prerequisites:	
<b>COMM-1173</b>	
COMP-1309 IT Service Management	
In this foundational course, students will learn to manage common services that are provided by IT Operations professionals. Students will be introduced to core principles of IT service management such as customer service orientation, continual service improvement, and a focus on meeting the needs of the business. Students will get hands on experience troubleshooting common IT problems. They will learn how to manage incidents, identify and address systematic problems, and manage changes in IT services. The course also gives learners practice writing change tickets and training customers how to use new technologies.	

COMP-1310  
IT Architecture and Design

IT solutions exist in order to meet business needs. In this course, students will learn foundational principles of IT architecture and design. They will learn how to interpret architectures and Detailed IT Design (DID) documents IT architects and engineers create and how to map the dependencies between infrastructures. Learners will also apply these architecture and design principles to create a simple IT solution.

COMP-1311  
IT Foundations

This course covers common IT concepts including the structure of typical IT departments and the roles of various IT professionals. Students will learn how an operating system interacts with applications on a device. Students will be introduced to computer hardware and networks and will install peripherals such as printers. They will also learn foundational software development and database concepts. By the end of this course, students should use common IT best practices.

COMP-1312  
Customer Experience

Customer Experience (CX) is a philosophy that makes the customer the focal point for all IT services. In this introductory-level course, students will get an overview of CX philosophies and processes, including the value delivery model. They will engage in role plays and simulations to provide customer service through responsiveness, tailored communication, and application of conflict management techniques. Students will apply user experience tools and a full design sprint to create a technology solution.

COMP-1701  
Transforming Data Into Databases

This is a data-focused course to develop confidence with quick data handling, parsing, structuring, and manipulating datasets for various database types. By viewing, understanding, and normalizing datasets, students will produce Entity Relationship Diagrams (ERDs) and other visual data schemas. Students will learn basic Structured Query Language (SQL) and NoSQL (not only SQL) data types, key-value pairs, and document stores. Students will develop basic to advanced commands including complex JOINS, advanced mathematical and string functions, and full-text search indexing functions. Students will tune the performance and execution times of queries using common practices of indexing and de-normalization.

COMP-1702  
Introduction to Data Science and Machine Learning

In this course, students will be introduced to the fields of Data Science and Machine Learning (DSML) and how they are used in real business applications. Students will get an introduction to the industry standard tools and technologies used in this field and learn definitions and meanings of common terms. They will analyze real case studies of how industry has applied the tools of DSML to improve their performance. By the end of this course, students will be able to contrast how DSML tools have impacted performance metrics in industry, compared to conventionally used methods.

COMP-2041  
IT Operations Foundations

This course covers core competencies required for IT Operations professionals. Students will determine the capacity and performance requirements for a technology, apply configuration standards, and use automation tools to manage daily IT operations activities. By the end of this course, they will be able to manage relationships with their suppliers, implement sustainability plans, and gather evidence for reports and audits.

Prerequisites:

[COMP-1309](#) [COMP-1311](#)

COMP-2042  
IT Service Desk and Customer Support



IT Service Desk professionals provide support to both internal and external customers, sometimes by troubleshooting problems themselves, but otherwise by knowing who can address the issue. Students will reinforce the troubleshooting and customer experience skills developed in previous courses and use knowledge base articles to manage incidents and to solve problems. They will be able to support identity and access management processes; configure end-point solutions such as laptops, mobile devices, and cloud-based platforms; and contribute to Computer Emergency Response Teams (CERTs). Throughout this course, learners will apply the customer service model and further develop specific communication skills such as positive messaging during stressful events.

**Prerequisites:**

Take [COMP-1309](#) or [COMP-1332](#), take [COMP-1311](#) or [COMP-1329](#), and take [COMP-1312](#) or [COMP-1328](#).

**COMP-2043**

**People, Process and Technology**

Students will learn how the framework of People, Process, and Technology supports IT services. This course reinforces and develops students' communication skills through the writing of processes, procedures, training plans, and transition-to-production documents. Learners will conduct mock meetings with stakeholders, carry out in-person training, and develop a training video. By the end of the course, they will develop a comprehensive deployment plan for a new technology which includes the calculation of human resource requirements and required processes.

**Prerequisites:**

[COMM-1173](#) [COMP-1309](#) [COMP-1311](#)

**COMP-2044**

**Security Foundations**

Information security skills are important for all IT professionals. Students will conduct security assessments, implement solutions, use software to monitor threats, and respond to specific events. The course covers standard security processes for containing threats. Students will learn to operate with an awareness of relevant laws and policies and demonstrate ethical reasoning. Learners will gain familiarity with security terminology and principles.

**Prerequisites:**

[COMP-1311](#) or [COMP-1329](#)

**COMP-2045**

**Cloud Infrastructure [RPL](#)**

Organizations increasingly rely on cloud services for their operations. This course covers an overview of the architecture, implementation and delivery of cloud technologies including networks, databases, storage and compute services. Students will identify the cloud infrastructure required for specific IT services. They will also configure, deploy and maintain a cloud service as part of a comprehensive project. This course prepares students for the AWS certified Cloud Practitioner Foundational certification exam.

**Prerequisites:**

Take one of: [COMP-1310](#), [COMP-3019](#), or [COMP-3008](#), and take one of [COMP-1311](#), [COMP-1329](#), or [COMP-1295](#).

**COMP-3016**

**IT Service Delivery**

Organizations have various methods of delivering IT services to internal and external customers. This course covers models such as DevOps (Development/Operations), agile service delivery, SecOps (Security/Operations), and SIAM (Service Integration and Management). Students will learn project management basics including agile and waterfall methodologies, gather requirements from customers, and provide requirements to a project team. Students will use innovation best practices to create a service solution improvement.

#### Prerequisites:

[COMP-1311](#)

#### COMP-3017

##### Business Continuity and Disaster Recovery

Organizations use the closely related practices of business continuity and disaster recovery to ensure that they can remain operational after a negative event. Students will learn how to contribute to, execute, test, and communicate plans for business continuity and disaster recovery. They will learn to create backups using different types of storage and to restore from a backup. The course covers the mapping of service dependencies and the standard processes that IT Operations professionals use to take down and recover systems.

#### Prerequisites:

[COMP-2041](#)

#### COOP-4003

##### IT Operations Co-op

Co-operative Education (Co-op) integrates related on-the-job experience with classroom theory by incorporating a term of paid employment in the final term of the program. The employer, the student and the College form a partnership to extend the learning process beyond the College into the professional business world and students are given the opportunity to practice and apply the skills gained during the academic semesters of their program as productive full-time employees. It is a proven training system where everyone shares in the benefits. A limited number of Co-op positions are assigned through a competitive process each term. A Co-op tuition fee is charged to all students registered in a Co-op work term to cover work placement development, pre-employment instruction, and employment-related monitoring. Student performance will be monitored and evaluated by both the department and the employer.

#### Prerequisites:

Take: [COMP-1309](#) [COMP-1310](#) [COMP-1311](#) [COMM-1173](#) [COMP-1312](#) [COMP-2041](#) [COMM-2172](#) [COMP-2042](#) [COMP-2043](#) [COMP-2044](#) [COMP-2045](#) [COMP-3016](#) [COMP-3017](#) [COMM-2176](#). Take either [COMP-1701](#) or [COMP-1702](#).

#### INDP-4003

##### IT Operations Industry Project

The Industry Project provides real world experience in applying IT operations skills to a project requiring cross-functional teamwork. Project teams will work jointly with industry partners at the ACE Project Space facility. Each project team will evaluate, analyze, plan, research, model, design, document, develop, test, and manage a project. This option provides practice to further develop interpersonal, verbal, and written communication through teamwork and collaboration with project stakeholders. All team members will enhance their critical thinking, problem solving, research, independence, and life-long learning skills.

#### Prerequisites:

Take: [COMP-1309](#) [COMP-1310](#) [COMP-1311](#) [COMM-1173](#) [COMP-1312](#) [COMP-2041](#) [COMM-2172](#) [COMP-2042](#) [COMP-2043](#) [COMP-2044](#) [COMP-2045](#) [COMP-3016](#) [COMP-3017](#) and [COMM-2176](#). Take either [COMP-1701](#) or [COMP-1702](#).

## Computer/Laptop Requirements

You need a laptop computer that meets the [specifications](#) for the program. These [requirements](#) are higher than for other programs at RRC Polytech, so you need to review them before purchasing your computer.

Please review the requirements

at <https://catalogue.rrc.ca/files/File/catalogue/LaptopandInternetSpecsACE.pdf>

You need to bring your laptop to all classes that take place on campus. The College provides free high speed internet access on campus. For online classes, you are responsible for your own high speed internet connection.

## Recognition of Prior Learning

Recognition of Prior Learning (RPL) is a process which documents and compares an individual's prior learning gained from prior education, work and life experiences and personal study to the learning outcomes in College courses/programs. For more information, please visit [www.rrc.ca/rpl](http://www.rrc.ca/rpl).

## Graduation Requirements

In order to receive the IT Operations diploma, students must complete 87 Credit Units consisting of 1,215 hours of classroom study over three academic terms plus one 15-week work integrated learning term. These requirements can be completed in 20 months of full-time study. The program may also be completed on a part-time basis. Students must complete the program within six years.

Students require a minimum program GPA of 2.0 to graduate.

### *Academic Advising Service*

Our academic advising service can provide information about our full-time programs, explain program admission requirements, and help you select the right program to meet your career and academic goals. We can also connect you with helpful people, resources, and supports.

- For more information visit [academic advising](#).
- If you are an Indigenous student, you can contact an [Indigenous Admissions Advisor](#).
- If you are an international student, you can contact [International Education](#).

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*Red River College Polytechnic endeavours to provide the most current version of all program and course information on this website. Please be advised that classes may be scheduled between 8:00 a.m. and 10:00 p.m. The College reserves the right to modify or cancel any course, program, process, or procedure without notice or prejudice. Fees may change without notice.*