FULL-TIME | WINNIPEG LOCATIONS

Cybersecurity

Overview

- Two year diploma

- Fall entry date

- Winter entry date for January 2026

- Exchange District Campus (formerly Princess Street Campus), Winnipeg

- Work Integrated Learning experience

- International applicants please visit Academic Program, Dates and Fees for a listing of programs for international students, current availability and online application instructions

Description

CyberSecurity professionals are tasked with the evolving work of protecting information by mitigating information risks. This diploma program will provide you with the knowledge and skills required by industry for an entry level position in the field of CyberSecurity. The program curriculum begins with foundational concepts in IT such as customer experience, networking, and security operations. Building on these concepts you will continue to develop your skills in such areas as vulnerability management, security monitoring, detection, and response. IT design principles, methodologies, incident management, and the laws and policies that apply to Information Security are also part of the curriculum.

This program includes the opportunity to apply skills learned in hands-on simulated environments as well as in the Work-Integrated Learning component where you will gain industry experience.

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 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.

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.

However, if you apply within 6 weeks of the program start date, admission requirements are due within 5 days of applying.

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.
     and

Mature 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
   - Grade 10 Math (any level) (Waived for 2025-2026 Academic Year)
     - or
   - Work Experience. To meet this requirement, you must submit a Personal Resume to demonstrate proof of having one year of information technology experience,

   - 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 Requirements 2

Program Progression Requirements

It is strongly recommended that students entering the Cybersecurity Diploma program obtain a criminal record check upon enrollment. Many employers need this as part of their onboarding process. Students who are not able to secure a satisfactory criminal record check may not be eligible for all work placements.

- Student Support: Criminal Record Checks

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
CAEL Online or In-Person	Overall band score of 60	Overall band score of 70 and Writing of 60
IELTS Academic Level	Overall 6.0 and No band below 5.5	Overall 6.5 and No band below 6.0
Password Skills	Overall 6.0 and No band below 5.5	Overall 6.5 and No band below 6.0
LINC Certificate	7	8
Duolingo Language Test	115 and above+ with a min. of 95 in each section	125 and above with a min. of 100 in each section
New English for Academic and Professional Purposes	Successful completion of the program 5 (min 70%)	Successful completion of the program 5 (min 70%)
PTE	54 overall Min 50 in each skill	60 overall Min 55 in each skill band
TOEFL-ibt Academic Level	80 (20L, 20S, 19R, 21W)	90 (22L, 22S, 22R, 24W)
Academic English Program for University and College Entrance Program (AEPUCE)	Successful Completion	Successful Completion
CELBAN	N/A	N/A

Locations, Dates and Fees

Next Estimated Term 1 Start Date (subject to change)

Location	Start Date	
Manitou a bi Bii daziigae	Jan 05, 2026	Apply Now

Costs (estimates only; subject to change)

Program/Student Fees
Year 1

$14,884.00

Year 2

	$9,942.00

Books and Supplies	
Year 1	
	$1,850.00[1]

Program/Student Fees (International)	
Year 1	
	$21,154.00
Year 2	
	$17,260.00

[1] Includes an estimate of $1600 for the purchase of a laptop and $250 for the purchase of software licenses

Students may apply for financial assistance through the Manitoba Student Aid program. For general information on applying please call 204-945-6321 or 1-800-204-1685, or visit their website at 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. Applicants requiring financial assistance should complete their student loan applications well in advance of the class start date.

Courses and Descriptions

Year 1	

Term 1	Credit Hours
COMM-1173 Communication Strategies	3
COMP-1284 Networking for Information Security	6
COMP-1285 Introduction to Security Operations	6
COMP-1311 IT Foundations	6
COMP-1312 Customer Experience	6

Term 2	Credit Hours
COMM-2172 Communication for the Workplace	3
COMP-1286 Vulnerability and Patch Management	3
COMP-1309 IT Service Management	6
COMP-1310 IT Architecture and Design	6
COMP-2044 Security Foundations	6

Year 2	

Term 3	Credit Hours
COMM-2176 Communication for Systems and Innovative Thinking	

COMP-2063
Security Monitoring, Detection and Response

6

COMP-2064
Security Operations

6

COMP-2065
IT Security Infrastructure

6

COMP-3016
IT Service Delivery

6

Term 4	Credit Hours

 Electives

COOP-4006
Co-op

6

INDP-4006
Industry Project

6

COMM-1173
Communication Strategies RPL

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 RPL

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 RPL

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:
COMM-1173

COMP-1284
Networking for Information Security

This course will equip students with a comprehensive understanding of the integral role that networking plays in maintaining strong information security. With a specific focus on the current practices and principles of secure networking, this course will delve into the areas of network fundamentals, network design and protocols,

network types, network configuration and network infrastructure. Learners will also discover what it takes to harden a network and apply forensic investigative techniques for mitigating network security incidents.

COMP-1285
Introduction to Security Operations

The ability to secure information in our world today is changing rapidly. This course will provide hands on experience related to principles and practices used in security operations. Students will build a foundational understanding of how organizations protect their information assets and respond to security incidents while ensuring continuous business functions and maintaining security operations. In this course students will cover concepts such as automation, IT as a Service (ITaaS), incident management, and effective communication strategies needed in this field.

COMP-1286
Vulnerability and Patch Management

As cyber threats continue to evolve and intensify, the ability to identify, evaluate, and address vulnerabilities becomes paramount for ensuring organizational security. This course offers an introduction into the critical processes of identifying, assessing, and mitigating vulnerabilities in information systems. A major emphasis of this course is on Patch Management - the processes and strategies involved in updating and fixing software applications to address known vulnerabilities. Students will gain experience with various patch management tools, learn how to create patch implementation plans, and when to apply mitigation strategies.

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-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-2063
Security Monitoring, Detection and Response

This course will provide students with an understanding of the critical processes involved in identifying, monitoring, and responding to security threats. Students will cover a variety of key topics such as utilizing Security Information and Event Management (SIEM), the phases of the Security Incident Management lifecycle, and how cloud security differs from other environments. Students will also gain exposure to various monitoring methods and tools, be able to apply security event correlation techniques, and learn how to contain malicious activities.

COMP-2064
Security Operations

This course provides an overview of the strategic, tactical, and operational aspects of Security Operations within a company. Upon completion, students will demonstrate the ability to operationalize an IT service by ensuring the operational health, reliability, and effectiveness of the service. Students will be provided with the opportunity to develop skills that contribute to the creation of technology strategy and roadmaps and to gain an understanding of how Organizational Change Management (OCM) is critical to the adoption and stability of new or changed IT services. Automation skills, security service levels concepts, and data security are also covered.

COMP-2065
IT Security Infrastructure

This course explores contemporary techniques, tools, and strategies associated with information technology security infrastructure. Students will be introduced to and receive hands on experience with the lifecycle of security infrastructure. In addition, this course will provide the opportunity to develop skills with Identity and Access Management (IAM), Cloud Security, and with configuring rules and policies for rule-based security systems. Students will apply data security principles and recognize best practices for maintaining a secure IT environment.

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

COOP-4006
Co-op

Co-operative education integrates related on-the-job experience with classroom theory by incorporating a term

of paid or unpaid employment in the final term of the program. Students are given the opportunity to practice and apply the skills gained during the academic semesters of their program as productive full-time employees on their work term. Student performance will be monitored and evaluated by both the department and the employer.

Prerequisites:
Take: COMP-1312 COMP-1284 COMP-1311 COMP-1285 COMM-1173 COMP-1310 COMP-2044 COMP-1309 COMP-1286 COMM-2172 COMP-3016 COMP-2063 COMP-2064 COMP-2065 and COMM-2176

INDP-4006
Industry Project

The Industry Project provides real world experience in applying Information Security 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-1312 COMP-1284 COMP-1311 COMP-1285 COMM-1173 COMP-1310 COMP-2044 COMP-1309 COMP-1286 COMM-2172 COMP-3016 COMP-2063 COMP-2064 COMP-2065 and COMM-2176

CO-OP/Practicum Information

Term 4 is a 15-week WIL term. Students can either choose a Co-op, or an industry project in ACE Project Space. The Project Space experience will give students an opportunity to work with local entrepreneurs on an interdisciplinary team that includes students from other ACE programs.

Computer/Laptop Requirements

Students need to provide their own laptop and have a high-speed internet connection. Students will require a Standard Type A device under the new College standards for laptops.

The college uses the Microsoft Teams application to host online classes therefore students will need this application on their laptops. There is a web version of Teams, however for optimal function the application is preferred.

All curriculum will be stored and utilized in Learn.

- RRC Polytech Computer Requirements

- RRC Polytech Learning Technologies – Technical and Software Requirements

Objectives/Learning Outcomes

1. Demonstrate customer experience and customer service philosophies to meet business needs.
2. Apply network design and configuration best practices using established network security principles and techniques.
3. Demonstrate fundamental IT skills for troubleshooting and IT services support.
4. Support business functions and capabilities through implementing security measures to protect an organization's IT Infrastructure.
5. Demonstrate a comprehensive understanding of current threat landscapes, security architectures, and operational best practices.
6. Apply communication strategies and teamwork skills that could be used with various stakeholders.

7. Interpret IT architecture to apply changes, provide support, and continually improve service.
8. Perform information security operational functions to maintain the security of the business technology environment.
9. Apply the IT service management framework to increase information technology operational efficiency and stability.
10. Protect the business from vulnerabilities by performing vulnerability management and apply patch management strategies to mitigate security threats.
11. Deliver IT services to provide continuity of service.
12. Utilize security monitoring, detection, and response processes to maintain a secure business environment.
13. Contribute to security infrastructure lifecycle processes and functions for business technology environments.

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.

Graduation Requirements

Students will earn the Cybersecurity Diploma by completing a minimum of 84 Credit Units consisting of 1,170 hours of classroom learning over three (3) academic terms plus one 15-week (600 hour) work integrated learning (WIL) term. Course-based registration allows students to complete the program on a full-time basis in a minimum of 16 months. Typical full-time students who take a four-month study break each year will complete the program in 20 months. As per College policy, students must complete the program within six years.

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.