Master of Science in Cybersecurity (M.S.-CYBERSECURITY)

The Master of Science in Cybersecurity (M.S.-Cybersecurity) program at New York Institute of Technology - Vancouver (New York Tech) is internationally acclaimed for its multi-faceted education and student success rate. Students will learn to critically evaluate various technical and architectural solutions in order to limit risk and mitigate the effects of hostile action, while studying algorithm concepts, risk management, and incidence response. The program covers the design, implementation, and maintenance of software tools to support network security across multiple operating systems.

**Highlights**

- Students are able to enjoy brand new, state of the art facilities located at Broadway Tech Centre campus.
- The program offers an innovative, technology-oriented, and interdisciplinary curriculum taught by qualified and experienced faculty.
- M.S.- Cybersecurity is an applied degree and can be completed in less than two (2) years.
- Students have the opportunity to transfer between New York and Vancouver campuses.
- Financial aid is available to Canadian Citizens and Permanent Residents of Canada.
- Career planning services are available on campus to all students.
- International students are eligible to work off campus during their studies and can qualify for post-graduation work permits (up to three (3) years) after graduation.

The New York Tech Vancouver M.S.-Cybersecurity Program

M.S.- Cybersecurity echoes the non-thesis curriculum option already offered in New York. The program is ideally suited for students with a computer science, electrical engineering, or related backgrounds who intend to play a leading role in the implementation and management of computer and network security systems.

Students who graduate from the M.S.- Cybersecurity program can expect great demand from the following occupations:

- Cybersecurity Specialists
- Network Administrators
- Information Systems Managers
- Cybersecurity Engineers
- Cyber Threat Analysts
- Security Analysts

Accreditation/Consent

The College of Engineering and Computing Sciences at New York Tech is accredited in the U.S. by the Engineering Accreditation (EAC) of the Accreditation Board Engineering and Technology, Inc. (ABET). This program is offered in Vancouver under the written consent of the Ministry of Post-Secondary Education and Future Skills in British Columbia. In the United States, New York Institute of Technology is accredited by the Middle States Commission on Higher Education. See here: [https://admin.bceqa.gov.bc.ca/report/](https://admin.bceqa.gov.bc.ca/report/)

More Information →

[https://vancouver.nyit.edu/vancouver/degrees/cybersecurity_ms](https://vancouver.nyit.edu/vancouver/degrees/cybersecurity_ms)

Apply Now →

[https://vancouver.nyit.edu/apply](https://vancouver.nyit.edu/apply)
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Intakes & Duration

There are three (3) terms in every academic year; Fall (15 wks, Sep.–Dec.), Spring (15 wks, Jan.–Apr.), and Summer (8 wks, May–Jul.). M.S.-Cybersecurity is a two (2) year program, but strong students can complete it in less than two years.

Admission Requirements¹

You must possess the following qualifications in order to be considered for the M.S.- Cybersecurity program at New York Tech Vancouver:

- A FOUR (4) - YEAR BACHELOR’S DEGREE OR EQUIVALENT IN COMPUTER SCIENCE, IT, OR RELATED FIELD¹
  from an accredited college or university

- A MINIMUM UNDERGRADUATE GPA OF 3.0
  (on a 4.0 scale) or equivalent

- A MINIMUM GRE SCORE OF 295
  (if required)

- DEMONSTRATED ENGLISH PROFICIENCY²
  The International English Language Testing System (IELTS - Academic or Online)
  Test of English as a Foreign Language (TOEFL - iBT or Home Edition)
  Pearson Test of English (PTE)

Please Review the Table Below for the Minimum English Requirements for a Direct Entry

<table>
<thead>
<tr>
<th>TEST</th>
<th>OVERALL</th>
<th>READING</th>
<th>LISTENING</th>
<th>SPEAKING</th>
<th>WRITING</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS</td>
<td>6.5</td>
<td>6.0</td>
<td>6.0</td>
<td>6.5</td>
<td>6.0</td>
</tr>
<tr>
<td>TOEFL</td>
<td>88</td>
<td>13</td>
<td>12</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>PTE</td>
<td>65</td>
<td>60</td>
<td>60</td>
<td>65</td>
<td>60</td>
</tr>
</tbody>
</table>

[1] Minimum requirements. The M.S.-Cybersecurity program has a limited number of seats and only the best applicants will be admitted to the program.
[2] This is not required if you have completed your Bachelor’s degree from an English speaking country. Please visit https://vancouver.nyit.edu/english requirement exemption to see the list of countries from which an English language proficiency test is not required. IELTS indicator test is not accepted for admission.
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Discretionary Admission

Applicants with an overall GPA between 2.85 and 2.99 may, at the discretion of the Vancouver program dean, be admitted into the program.

Reasons for discretionary admission include but are not limited to:

• Submission of official GRE test scores of a minimum of 295, with a minimum percentile rank of 75% in quantitative reasoning
• Completion of a relevant master’s degree with a minimum GPA of 3.0
• Prior work experience (minimum 2 years in the related field)
• Applicants potential to contribute to the diversity of the student body (New York Tech Vancouver has identified a list of countries as diversity countries)

How to Apply

All New York Tech Vancouver applications are submitted online and require a non-refundable $50 USD application fee. The application process begins here: vancouver.nyit.edu/admissions →

Once you have paid the fee, upload the following documents:

• Four (4)-year Bachelor’s degree certificate
• Transcripts from each semester of your four (4)-year Bachelor’s degree
• Any transcripts or certificates received beyond your Bachelor’s degree program
• Proof of English proficiency (IELTS, TOEFL, PTE)[2]
• Copy of official GRE score (may be required on a case-by-case basis)
• Statement of Purpose (recommended)
• A copy of your passport
• 1–2 page résumé or C.V.
• Two (2) letters of recommendation from professors who are familiar with your undergraduate work (recommended)

[2] This is not required if you have completed your Bachelor’s degree from an English speaking country. Please visit https://vancouver.nyit.edu/english_requirement_exemption to see the list of countries from which an English language proficiency test is not required. IELTS indicator test is not accepted for admission.
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**Tuition Estimates**

<table>
<thead>
<tr>
<th>For two (2) years</th>
<th>$36,300 USD[^4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 CREDITS[^3]</td>
<td></td>
</tr>
</tbody>
</table>

7 Required Courses (21) + 2 Electives (6) + 1 Project (3) + Graduate Communications (0)

<table>
<thead>
<tr>
<th>Tuition per credit: $1,210 USD</th>
<th>Application Fee: $50 USD (non-refundable)</th>
<th>Graduate Communications: $1,815 USD[^6]</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Fee: $300 USD (per semester)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Financial Aid**

Financial Aid is available to Canadian Citizens and Permanent Residents of Canada.

**Intake Dates for 2024**

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>START DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPRING 2024</td>
<td>Jan 22, 2024</td>
</tr>
<tr>
<td>SUMMER 2024</td>
<td>May 21, 2024</td>
</tr>
<tr>
<td>FALL 2024</td>
<td>Sept 3, 2024</td>
</tr>
</tbody>
</table>

For application start dates, please visit [https://vancouver.nyit.edu/apply#applicationdate](https://vancouver.nyit.edu/apply#applicationdate).

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[^3]: International students must take a minimum of 18 credits + Graduate Communications (0 credits) per year to qualify for Full Time status (6 credits + Graduate Communications (0 credits) in their first term and 6 credits in subsequent terms).

[^4]: For two (2) years. Amount does not include other fees or tuition fees for any waivable courses or bridge courses that may be required. Two-year tuition fee calculated based on: Fall 2024 USD $1,210/credit; Spring 2025 USD$1,210/credit; Summer 2025 USD$1,210/credit. Please note tuition is calculated at USD$1,210/credit as an estimate from Fall 2025 onward. The actual tuition rate per credit will be determined later. Tuition charges may change during study period without prior notice. See [https://vancouver.nyit.edu/bursar_prospective_students](https://vancouver.nyit.edu/bursar_prospective_students) for updates.

[^5]: Applications may close earlier than the deadline dates. See [https://vancouver.nyit.edu/apply](https://vancouver.nyit.edu/apply) for updates.

[^6]: Graduate Communications course must be taken in the Fall 2024 semester. The course fee of USD $1,815 is only applicable to Fall 2024 semester.
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Program Overview

The M.S.-Cybersecurity core curriculum includes 30 credits, including eight (7) required courses (21 credits), two (2) electives (6 credits), one (1) supervised project (3 credits), and one (1) Technical Communications course (0 credits).

Core Courses

All courses are three (3) credit hours unless otherwise specified.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCS 615</td>
<td>Advanced Network and Internet Security</td>
</tr>
<tr>
<td>INCS 618</td>
<td>Computer Security Risk Management and Legal Issues</td>
</tr>
<tr>
<td>CSCI 620</td>
<td>Operating System Security</td>
</tr>
<tr>
<td>CSCI 651</td>
<td>Algorithm Concepts</td>
</tr>
<tr>
<td>INCS 712</td>
<td>Computer Forensics</td>
</tr>
<tr>
<td>INCS 741</td>
<td>Cryptography</td>
</tr>
<tr>
<td>INCS 745</td>
<td>Intrusion Detection and Hacker Exploits</td>
</tr>
</tbody>
</table>

Additional Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCS 870</td>
<td>Project I</td>
</tr>
<tr>
<td>NYIT 610</td>
<td>Graduate Communications (0 credits)</td>
</tr>
</tbody>
</table>

Selection of Elective Courses

Students are required to choose two (2) elective courses. All courses are three (3) credit hours. Students can choose two of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 690</td>
<td>Computer Networks</td>
</tr>
<tr>
<td>CSCI 657</td>
<td>Data Mining</td>
</tr>
<tr>
<td>INCS 735</td>
<td>Secure Software Engineering</td>
</tr>
<tr>
<td>INCS 775</td>
<td>Data Center Security</td>
</tr>
<tr>
<td>INCS 810</td>
<td>Special Topics in Computer Security</td>
</tr>
</tbody>
</table>

For a list of elective courses, please see:

https://www.nyit.edu/degrees/cybersecurity_ms/curriculum
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**Prerequisite Courses**

Students who are admitted to the program with insufficient background in mathematics or computer science may be required to take one or more of the following undergraduate prerequisite courses. All courses are three (3) credit hours.

<table>
<thead>
<tr>
<th>PREREQUISITE COURSES</th>
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</thead>
<tbody>
<tr>
<td>CSCI 502</td>
</tr>
<tr>
<td>CSCI 504</td>
</tr>
<tr>
<td>CSCI 503</td>
</tr>
<tr>
<td>CSCI 507</td>
</tr>
<tr>
<td>CSCI 509</td>
</tr>
</tbody>
</table>
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Application Checklist

To be considered for the program, you must have:

- $50 USD non-refundable application fee
- A four (4)-year Bachelor’s degree (or equivalent) from an accredited college or university
- A minimum cumulative GPA of 3.0 (on a 4.0 scale) or equivalent
- Bachelor’s degree completion certificate
- Semester-by-semester transcripts for all four (4)-years of your Bachelor’s degree
- Any transcripts or certificates received beyond your Bachelor’s degree program
- Proof of English proficiency (IELTS, TOEFL, PTE)
- Copy of official GRE score (may be required on a case-by-case basis)
- Statement of Purpose (recommended)
- A copy of your passport
- 1–2 page résumé or C.V.
- Two (2) letters of recommendation from professors who are familiar with your undergraduate work (recommended)

If you have met all of these qualifications, submit your application online and upload the following documents to: [https://vancouver.nyit.edu/apply](https://vancouver.nyit.edu/apply)

Once you apply, you can notify our Admissions department by emailing [vancouver.admissions@nyit.edu](mailto:vancouver.admissions@nyit.edu)

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ACADEMIC POLICY

Policy on submission of fraudulent academic documents for admission:

Students found to have submitted fraudulent academic documents, i.e., transcripts, for the purpose of admission to a degree program at New York Institute of Technology Vancouver, will have their admission cancelled and may be disciplined or expelled upon confirming that the documents submitted were forged. It is the responsibility of the applicant/agent to make sure the documents submitted during application process are not forged.

Clear understanding about the program

Before submitting the application for admission, applicants must understand they have an in-depth knowledge about the program they are applying to. They must also have clear understanding of the curriculum structure and future prospect of this program they are applying to.