



Northeastern University

College of Engineering

Congratulations on your acceptance to the Master of Science (MS) Information Systems program at Northeastern University – Vancouver!

As an incoming Fall 2024 student, there are some steps that you need to take before the Fall semester starts. **Please read this document thoroughly as it contains helpful information and can answer many of your questions before you start your first semester in your master's program.**

Step 1: Confirm your enrollment.

You will not be able to register for classes (information below) until you confirm enrollment. You can confirm your enrollment by [logging into your application account](#) and paying the enrollment deposit. If you have any questions regarding this process, please reach out to the Graduate Admissions team at coe-gradadmissions@northeastern.edu.

Step 2: Know your faculty advisors and administrative contacts.

[Professor Kal Bugarra](#)

Program Director, Information Systems

[Professor Maricla Pirozzi](#)

Program Director, Information Systems – Bridge, and Data Architecture & Management

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Step 3: Complete your course registration.

As an Information Systems student, you are **required to complete INFO 5100: Application Engineering Development**, and the accompanying lab, **INFO 5101: Lab for INFO 5100, in your first term**. This is the only required course in the Information Systems program and it is an important building block for your subsequent courses. Your second course will be the first elective course in your program. We have several different elective options for our first-year students that will help you develop the skills you will need to be successful throughout the rest of your program. **It is strongly recommended that you take one of the elective courses listed below in addition to INFO 5100 and INFO 5101, as some of these courses are prerequisites to other courses that will be offered in following semesters.**

Professor Kal Bugrara, the Director of the Information Systems program, has created the following advising guide for you to refer to as you choose your courses for this Fall. **Please register for Vancouver sessions of the courses.** You will not be able to take courses from other campuses. **Please note class information is subject to change.**

INFO 5100 (required): Application Engineering and Development

Students will learn innovative software programming techniques that will enable them to design and build any kind of application properly and quickly. Through hands-on weekly lab sessions, students practice the development of applications as an assembly of components. Object-oriented techniques for building business architectures that map to software applications will be introduced. You will learn how to master ways of taking vague requirements and turn them into systems of eco-system scale. This class was designed to meet the needs of engineering students with a limited programming background. Students who do have a programming background will learn how to design and architect software the right way. This class with its emphasis on solid design of socio-technical systems is the cornerstone of what we do in Information Systems.

Sections Available:

Section 13: Friday 1:00 – 4:20 PM
CRN 21862

Section 15: Wednesday 2:00 – 5:20 PM
CRN 20822



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INFO 5101 (required): Lab for INFO 5100

This required lab session is complementary to the main lectures of INFO 5100. The lab will cover the syntax and semantics of programming in the Java programming language. The teacher will emphasize all aspects of the Java programming language in depth to ensure students are ready to tackle complex problems. The lab will be especially useful for students with a minimum programming background.

Section Available:

Section 20: Does Not Meet
CRN 20824

Elective Offerings:

INFO 6105: Data Science Engineering Methods and Tools

This class is for students who are planning to build a career in engineering machine learning and data science applications. The class covers the fundamentals of probability and statistics, data analysis and engineering, classification and clustering techniques, statistical inferencing, machine learning methods and tools. In a step-by-step manner, students will learn how to code in and make extensive use of the python programming language. Minimum expertise in programming is required to take this class. Though very demanding, this class is a good fit with the Application Engineering class (INFO 5100) for students with prior development experience.

Section Available:

Section 13: Thursday 1:30 – 4:50 PM
CRN 21534

INFO 6150: Web Design and User Experience Engineering

This course gets into the front-end design of web-based user interfaces using Javascript. You learn the latest tools, techniques, and frameworks for building attractive user interfaces that engage the user in meaningful ways. You'll learn about various ways that users interact with systems, color theory, and how to implement solid client-side user interfaces. Meant for students with minimal programming background but ready to program in Javascript and html. This class goes well with the Application Engineering class (INFO 5100). These two classes will prepare you well for becoming a front-end developer. Tools covered include Javascript, Typescript, AnglurJS, Node, and various aspects of the React framework. This is a popular course that we recommend highly due to its relevance to co-op job opportunities.



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Section Available:

Section 11: Tuesday 1:00 – 4:20 PM
CRN 21535

INFO 6215: Business Analysis and Information Engineering

This class provides an overview of the software life-cycle with special emphasis on client engagement, requirements gathering, use-case development, UML class diagrams, etc. This is an excellent class for students who are new to the software industry and want to take their time in building their programming skills. The class complements the Application Engineering class very well.

Section Available:

Section 07: Monday 2:30 – 5:30 PM
CRN 22207

DAMG 6210: Data Management and Database Design

For the student who has no background in databases and wants to know what is involved in the design and programming of databases and wants to maximize technical skills. A good foundation for those who want to focus on data management, business intelligence, data science, etc. or who want to make these areas their career objectives.

Section Available:

Section 17: Monday 2:00 – 5:20 PM
CRN 21531

CSYE 7280: User Experience Design and Testing

Introduces user experience concepts while working on Web design projects. Offers students an opportunity to build the necessary skill sets to make better decisions when designing contemporary websites that cater to customer needs. Students practice interview techniques to understand user requirements while keeping user experience central to the effort. Uses wireframes and user scenarios to drive the creative design process. Various case studies are introduced and discussed in team settings to emphasize user perspectives. Uses quality assurance and usability testing to drive validation and user-acceptance testing and approvals.

Section Available:

Section 09: Thursday 5:30 – 8:30 PM
CRN 22205



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Capstone/Master's Project and Thesis Requirements

As part of the Information Systems degree program in Vancouver, British Columbia, you are required to complete either a thesis or a capstone/Master's Project in addition to the coursework required for your degree program. These components are integral to your academic journey. Both the thesis and capstone/Master's Project options provide you with an opportunity to delve deep into a topic of your interest, apply theoretical knowledge to real-world problems, and showcase your analytical and research skills.

Here's a brief overview of the options available to you:

Thesis (8 Semester Hours)*: If you choose the thesis route, you will have the chance to conduct original research under the guidance of a faculty advisor. The thesis option will require a high-level of dedication and approval of thesis topic prior to registering in this option. Additionally, this option is ideal for those who have a keen interest in academic research, wish to contribute new knowledge to the field of Information Systems, and seek further doctoral or PhD studies post-graduation.

** 8SH of thesis work need to be completed consecutively over two semesters.*

Capstone/Master's Project (4 Semester Hours): Alternatively, you may opt for the capstone/Master's Project, which is a hands-on, practical endeavor focused on solving a real-world problem or addressing a specific challenge within the realm of Information Systems. This option allows you to gain relevant industry insights, apply theoretical concepts to practical scenarios, and demonstrate your ability to develop innovative solutions.

Regardless of which option you choose, both the thesis and the capstone/Master's Project offer valuable opportunities for personal and professional growth, allowing you to develop critical thinking skills, enhance your research abilities, and make meaningful contributions to the field. **More information regarding the course sequencing, course registrations, and requirements of each option will be shared with you during your orientation sessions.**

Throughout your academic journey, our faculty and staff are here to support you every step of the way! If you have any questions or require further clarification regarding the thesis or capstone/Master's Project requirements, please do not hesitate to reach out to your Academic Advisor (coe-vancouver-gradadvising@northeastern.edu).



Frequently Asked Questions

In addition to the items outlined below, please visit the [MGEN Frequently Asked Questions](#) page for further guidance.

How do I register?

Please enter the CRN numbers listed above directly into your registration worksheet. In some instances, these sections may not be available to view online as they are reserved for first-term students only. In these cases, you will not be able to register for these classes using the search classes feature and MUST enter the CRNs directly. If you need help navigating to your registration worksheet on your [StudentHub](#), please click on the following link for instructions on how to register: [General Registration Instructions](#)

*If you continue to encounter issues registering, please contact Graduate Student Services (coe-vancouver-gradadvising@northeastern.edu)

How do I get a MyNortheastern account?

If you have not set up your MyNortheastern account, please refer to the following link on [How do I claim my student account.](#)

What if I already registered for classes?

Please drop them immediately--unless they are the courses listed above. **As a first-term student, you should only take the sections of the classes listed above.** If you are registered in a section whose CRN number does not match with a number above, you are in the wrong section.

What if I do not get the elective I wanted?

If your first preference does not have any seats available, please sign up for your second preference (and so on). The schedule is dynamic, and students will continue to change their registrations up until the start of the term so there is still an opportunity for you to get into your first-choice elective this Fall. Please make sure you are always registered for **8 SH** if you are a full-time student.

Can I take an elective other than the ones listed above?

No. These classes were chosen because they are appropriate for first-term students. Please refer to the advising guide to select the class most relevant to your interests.



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Am I required to complete a Capstone/Master's Project or Thesis?

Yes. As part of your degree requirements, you will have the opportunity to complete a capstone/Master's Project or Thesis. More information regarding the course sequencing, course registrations, and requirements of each option will be shared with you during your orientation sessions.

How do I meet with Professor Bugrara?

You will have an opportunity to meet with Professor Bugrara, the Director of the Information Systems program, at orientation before classes start.

Can I skip the Application Engineering class (INFO 5100) and take it later?

No, you must take INFO 5100 this Fall. The class is essential for advancing yourself through the program and engaging in a successful co-op experience.

Am I allowed to take three courses?

No, Information Systems students are limited to two courses each term. Based on feedback from our students we found that three courses were too demanding, especially in terms of final exams and projects. All our courses require projects that count as much as 30% of your final grade and it is extremely hard to complete three of these a term. No exceptions to this policy will be considered until **after your first year**.

Can I take courses from other departments?

The only departments IS students can take courses from are INFO (Information Systems), DAMG (Data Architecture and Management), CSYE (Software Engineering Systems), and TELE (Telecommunication Systems).

Can I transfer credit from other universities?

No. Professor Bugrara firmly believes that all 32SH should be taken within the program at Northeastern University to uphold the integrity and continuity of the program.

What is the duration of the Information Systems Program?

You are required to take eight courses, for a total of 32 credits. The program takes a minimum of four semesters to complete. The typical student takes 2.5 years to complete the program, which includes an eight-month Co-op.

Is there funding or Teaching Assistant jobs available for first year students?

Unfortunately, there are no funding options in your first year. TA positions are filled by second year students only. You are expected to be fully dedicated to achieving academic success in the first year of the program.



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Am I required to bring a laptop?

Yes. You must bring a high-quality laptop with a minimum of 8 GB memory AND a strong (4 hour) battery life -- this is **required** for the Application Engineering course.

Am I eligible for co-op?

You are not eligible for co-op the first two semesters of your program, during which your focus will be strictly academic. During your last semester of study (in your second year), you must be fully on campus as a full-time student, even if you are eligible to be on co-op. According to government rules and regulations, co-op is an educational opportunity to strengthen your engineering skills--not a job pursuit.

How do I register for the co-op course?

One of the requirements to becoming eligible to go on co-op is to take ENCP 6000, Career Management for Engineers. To register, check Banner for available sections at your campus.

For more details, the Graduate Co-op Eligibility and Requirements can be found [HERE](#).

How long can I go on co-op?

Co-ops are a minimum of four months and a maximum of eight months.

Will I get a bill from registering?

Yes, your first e-bill is generated when you register for your courses. You will receive an e-bill from the University with instructions on how to pay the e-bill. If you have questions about the mode of payment or billing, please contact the Student Financial Services Office by submitting a [Student Financial Services Inquiry Form](#). Please do not contact faculty members or the registrar's office regarding tuition payment or billing. Additional information is available on their website at <http://www.northeastern.edu/financialaid/contact/>.

For more information about beginning your program at Northeastern University, please read your acceptance letter in full.

We look forward to welcoming you to the Graduate School of Engineering!