



Northeastern University

College of Engineering

Congratulations on your acceptance to the Master of Science (MS) Software Engineering Systems program at Northeastern University's Graduate School of Engineering!

As an incoming Spring 2023 student, there are some steps that you need to take before the Spring 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.**

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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. You may contact them at coe-gradadmissions@northeastern.edu.

Step 2: Know your faculty advisor and administrative contacts.

[Professor Kal Bugrara](#)

Program Director, Software Engineering Systems

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Step 3: Complete your course registration.

As a Software Engineering Systems student, you are **required to complete CSYE 6200: Concepts of Object Oriented Design and INFO 6205: Program Structure and Algorithms, in order to earn your degree. CSYE 6200 is a mandatory course for the Spring semester. You will need to pair one of the recommended electives below with CSYE 6200 in your first semester. INFO 6205 should be taken in your second semester.** These are the only required courses in the Software Engineering Systems program and are important building blocks for your subsequent courses. We have five different elective options for our first-year students that will help you develop the skills you will



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need to be successful throughout the rest of your program.

Professor Bugrara has created the following advising guide for you to refer to as you choose your courses for this Spring.

CSYE 6200: Concepts of Object-Oriented Design

This class will focus on the ins-and-outs of the Java programming language. The course introduces object-oriented design and programming via the Java programming language; the use of inheritance, composition, and interface classes in software design. The course is an excellent way for students to strengthen their development skills in preparation for the heavily programming courses that will be taken in later semesters.

Sections Available:

Section 03: Monday 2:00 - 5:30 PM
CRN 32900

Section 04: Tuesday 11:45 AM-1:25 PM & Thursday 2:50-4:30 PM
CRN 38558

Section 05: Tuesday & Friday 3:25 - 5:05 PM
CRN 38559

In addition to CSYE 6200, we strongly recommend that you consider one of the following courses for your elective:

CSYE 6205: Concepts of Object-Oriented Design with C++

Introduces object-oriented design and programming via the C# (C-sharp) programming language and its underlying .NET platform. Covers the use of inheritance and composition in software design and development of complex C# .NET applications. Topics include classes, overloading, data abstraction, information hiding, encapsulation, inheritance, polymorphism, file processing, templates, exceptions, container classes, and low-level language features.

Sections Available:

Section 01: Saturday 12:00 – 3:00 PM
CRN 36837 (*Livecast Instructional Method*)

CSYE 7280: User Experience Design and Testing



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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.

Sections Available:

Section 01: Monday 6:00 – 9:30 PM
CRN 32164

Section 04: Saturday 1:00 – 4:30 PM
CRN 38564 (*Livecast Instructional Method*)

Section 05: Wednesday 6:10 – 9:40 PM
CRN 38565

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.

Sections Available:

Section 02: Wednesday 6:00 - 9:30 PM
CRN 36505

Section 04: **ONLINE**
CRN 36507

Section 05: Thursday 6:00 - 9:30 PM
CRN 36508

Section 06: Saturday 2:30 - 6:00 PM
CRN 36509



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Section 09: Tuesday 11:45 AM-1:25 PM & Thursday 2:50-4:30 PM
CRN 36512

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 CSYE 6200 for students with prior development experience.

Sections Available:

Section 02: Tuesday & Friday 1:35-3:15 PM
CRN 33199

Section 03: Wednesday 6:00-9:30 PM
CRN 33200

Section 04: Wednesday & Friday 11:45 AM-1:25 PM
CRN 33201

Section 06: Tuesday 11:45 AM-1:25 PM & Thursday 2:50-4:30 PM
CRN 33203

Section 10: Monday & Thursday 11:45 AM-1:25 PM
CRN 36889

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. Tools covered include Javascript, Typescript, AnglurJS, Node, and various aspects of the React framework.



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This is a popular course that we recommend highly due to its relevance to co-op job opportunities.

Sections Available:

Section 01: Saturday 1:00 - 4:30 PM
CRN 32314

Section 02: Wednesday 6:10 - 9:40 PM
CRN 32924

Section 05: Thursday 6:10 – 9:40 PM
CRN 36959

Section 07: Thursday 6:00 – 9:00 PM
CRN 38576

Frequently Asked Questions

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 [my.Northeastern](#) account please watch the following webinars for instructions on how to register using your [my.Northeastern](#) account:

[Course Search Webinar](#)

[Course Add/Drop Webinar](#)

[General Registration Instructions](#)

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.**

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



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Spring. 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 five 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.

How do I meet with Professor Bugrara?

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

Can I take courses from other departments?

The only departments SWES students can take courses from are DAMG (Data Architecture and Management), INFO (Information Systems), and CSYE (Software Engineering 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 Software Engineering Systems Program?

You are required to take eight courses for a total of 32 credits. The program takes a minimum of three 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.

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) batter life - this is required.

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



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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. You can register for this course just as you do with your academic courses, but you need to make sure that you register for a section only for SWES/CSYE students. You can see this information in the course description on your registration portal under "Program Restrictions."

The **ENCP 6000: Career Management for Engineers** course is required to be eligible for co-op and to obtain access to Northeastern's co-op job platform, to search for co-op positions. Please see the suggested registration information below.

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

Suggested Registration Information:

CRN	Day	Time	Inst. Method	Campus	Programs
38969	F	9:50am – 11:25am ET	Traditional	Boston	SWES
34527	W	11:45am- 1:25pm ET	Traditional	Boston	SWES

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 payment, please contact the Student Financial Services office directly: <http://www.northeastern.edu/financialaid/contact/>.

How do I get a my.Northeastern account?

If you have not set up your my.Northeastern account, please follow the instructions [here](#).

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



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