



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 Full Summer 2021 student, there are some steps that you need to take before the Summer 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. 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

Sam Casey, Program Manager

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Yalan Sun, Program Manager

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Erin Macri, Administrative Assistant

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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 Summer semester. It is strongly recommended that you take INFO 6205 as your second course; however, you may take it in the Fall if you decide to enroll in one of the recommended elective courses.**

These are the only required courses in the Software Engineering Systems program and are important building blocks for your subsequent courses. We have three 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.

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Professor Bigrara has created the following advising guide for you to refer to as you choose your courses for this Summer. **Please note that any class times listed means the class will have a synchronous lecture at that time, in addition to a recorded lecture.**

CSYE 6200: Concepts of Object-Oriented Design

This class will focus on the ins-and-outs of the Java programming language. Students who have not programmed before will be asked to take this class in addition to Application Engineering (INFO 5100). The combination of these two courses is an excellent way for students to strengthen their development skills in preparation for the heavily programming courses such as the Algorithms, Web Methods and Tools, Big-Data Engineering classes during the Fall semester.

Sections Available:

Section 02: Friday 6:00 - 9:30 PM
CRN 51753 (Traditional, Full Summer)

INFO 6205: Program Structure and Algorithms

This class is recommended for students who have had programming experience before, but lack the algorithmic approach to solving complex programming challenges. The class covers all kinds of data structures from stacks, queues, trees, graphs, and algorithmic performance complexity. In addition, the class covers various problem-solving techniques such as divide and conquer, dynamic programming, randomized and greedy algorithms, backtrack search, etc. After the completion of this class, you will be in a position of solve any programming problems. Though this class is optional, it is highly recommended for students aiming to be software developers. There is a lot of technical work involved here, so it will be a challenge along with the Application Engineering class (INFO 5100). Students with a strong technical background may wish to take up this challenging opportunity right away.

Sections Available:

Section 01: Wednesday 1:30 – 5:00 PM
CRN 50494 (Traditional, Full Summer)

If you choose to only take one of the required courses, we strongly recommend that you consider one of the following courses for your elective:



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.

Sections Available:

Section 01: Saturday 1:00 – 4:30 PM
CRN 51756 (Traditional, Full Summer)

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.

Sections Available:

Section 01: Wednesday 6:00 - 9:30 PM
CRN 51214 (Traditional, Full Summer)

INFO 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. This class will prepare you well for Web Methods and Tools in future semesters.



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Sections Available:

Section 01: **ONLINE** (Full Summer)
CRN 50409

Frequently Asked Questions

How do I register?

Please enter the CRN numbers listed above directly into your registration worksheet. Some sections may not be available to view online as they are reserved for first-term students only. 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](https://my.northeastern.edu) account please watch the following webinar for instructions on how to register using your [my.Northeastern](https://my.northeastern.edu) account:

[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 Summer. 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 three 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 other department Software Engineering Systems students are allowed to take classes from is IS (Information Systems). IS is a sister program to SWES and focuses on the space where computer engineering and business skills



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merge. Courses such as Data Sciences, Business Process Engineering, etc. are available to SWES students through this program in later terms.

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 course 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 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 CSYE or SWES students. You can see this information in the course description on your registration portal under "Program Restrictions."

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?



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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.

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