Congratulations on your acceptance to the Information Systems program at Northeastern University – San Jose!

As an Information Systems student, you are **required to complete INFO 5100: Application Engineering Development (and the co-requisite lab, INFO 5101), in your first term.** This is the only required course in the Information Systems program and it is an important building block for all your subsequent courses. Your second course will be the first elective course in your program. We have **five 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.

Professor Kal Bugrara, the Director of the Information Systems program and your Academic Advisor have created the following advising guide for you to refer to as you choose your courses for this Fall. **Please register for Silicon Valley sessions of the courses. You will not be able to take courses from other campuses.**

**INFO 5100 (required), Application Engineering and Development:** Students will learn innovative software programming techniques that will enable them to properly design and build any kind of application 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 ecosystem 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 corner stone of what we do in IS.

**Sections Available:**
- Saturday 9:00 AM-12:00 PM, CRN 13311
- Saturday 1:10 PM-4:10 PM, CRN 13793

**INFO 5101 (required), Lab for INFO 5100:**

**Sections Available:**
- N/A, CRN 13312

**INFO 6105, Data Science Engineering Methods & Tools:** This class is for students 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 for students with prior development experience.

**Sections Available:**
- Monday 12:30 PM-3:30 PM, CRN 15876
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, AngularJS, 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:
Tuesday 12:00 PM-3:00 PM, CRN 15703 (Livecast Instructional Method)

INFO 6255: Software Quality Control and Management: This class examines techniques for the management and evolution of software systems. Topics include managing software as an asset; life cycle development and rapid development technologies; maintainability; quality assurance of software systems including testing strategies and problem analysis; software risk analysis; analysis of software project failures; process models; configuration management; and the impact of new development technologies on software management.

Sections Available:
Wednesday 3:00 PM-6:00 PM, CRN 18865 (Livecast Instructional Method)

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. This class will prepare you well for Web Methods and Tools in the Spring semester.

Sections Available:
ONLINE, CRN 15021 (Online Instructional Method)

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:
Saturday 9:30 AM-1:00 PM, CRN 18855 (Livecast Instructional Method)

ENCP 6000: Career Management for Engineers: Designed to introduce engineering students to the cooperative education program and to maximize their learning by helping them become
more intentional about learning in co-op and in the transfer of that knowledge and experience to and from their academic program and throughout their entire careers. This course is necessary to be eligible for co-op; this course does not count toward degree requirements.

Sections Available:
Wednesday 1:15-3:00 PM, CRN 12246

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 Student Hub account, please visit the Registrar’s website for instructions on how to register.

If you need individual help, please feel free to contact your Academic Advisor: Kim Wright (coe-sv-gradadvising@northeastern.edu)

What if I already registered for classes? Please drop them immediately, unless they are the courses listed above. As a first term student you can 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 fills, 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 those 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.

Meeting with Professor Bugrara: You will have an opportunity to meet with your Academic Advisor at Orientation. Professor Bugrara, the Director of the Information Systems program, will host a meeting with all San Jose students during the Fall semester.

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), and CSYE (Software Engineering Systems).

**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 three semesters to complete. The typical student takes 2.5 years to complete the program, which includes an eight-month Co-op.

**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.

**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) 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, see the information and CRN in the previous section. If students have any questions, please direct them to the co-op coordinator, Erica Hatzievgenakis e.hatzievgenakis@northeastern.edu

**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/](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 refer to the following link on [How do I claim my student account](#). 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!

Sincerely,

Graduate School of Engineering
Northeastern University