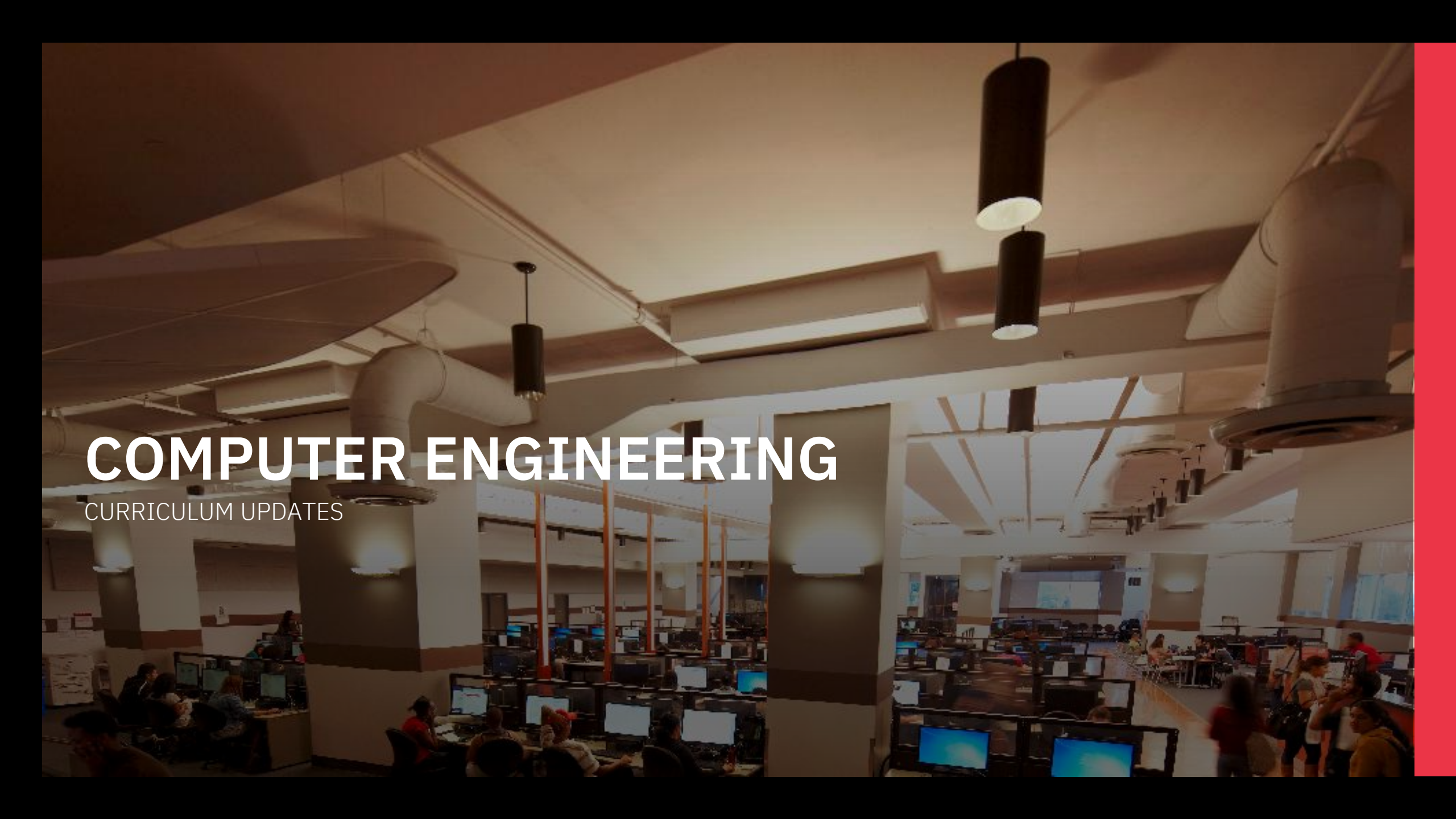




COMPUTER ENGINEERING

CURRICULUM UPDATES

EECS DEPARTMENTAL POLICIES

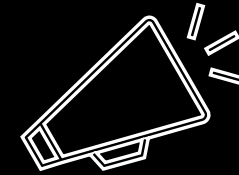
› Core Sequence:

EECS 1011 3.00, EECS 1021 3.00, EECS 2030 3.00, **EECS 2011 3.00 (EECS 2101 3.00 effective Fall 2023)** and EECS 2200 3.00 are core EECS BEng major courses and should be completed in the first 4 terms of study in order to progress. Note that EECS 2030 3.00 must be successfully completed prior to **EECS 2011 3.00 (EECS 2101 3.00 effective Fall 2023)**.

› **NEW:** E/F/G/H/I/V/X/Y/Z Sections:

LE/EECS courses must be completed in sections **E/F/G/H/I/V/X/Y/Z**. Exceptions:

- EECS 1028 3.00 may be completed in any section.
- If an upper year technical elective course is offered in an **E/F/G/H/I/V/X/Y/Z** section, the course should be completed in one of these sections. If the course is not offered in an **E/F/G/H/I/V/X/Y/Z** section, *any* section may be taken.
- **For Computer Engineering**, many technical electives are not offered in **E/F/G/H/I/V/X/Y/Z** sections; therefore the following courses may be completed in any section: LE/EECS 3214, 3431, 4215, 4404, 4421, 4422, 4431, 4441, and 4471.



Know before you enrol
1.0

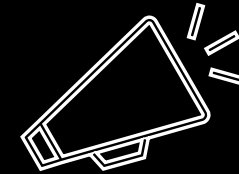
EECS DEPARTMENTAL POLICIES

➤ 4.50 EECS GPA Pre-requisite:

Most 2000-, 3000-, and 4000-level EECS courses require a cumulative GPA of 4.50 or better over all EECS major courses in addition to other course-specific prerequisites. Note: "Major" courses are all EECS courses with second digit other than 5 and include LE/EECS 1028 3.00 (cross-listed to: SC/MATH 1028 3.00) and LE/EECS 1019 3.00 (cross-listed to: SC/MATH 1019 3.00).

➤ Course Limits:

To ensure students can get access to the EECS courses they need and to ensure that students' course loads are reasonable, students are ordinarily restricted to taking at most four EECS courses per term. If the student is in their last semester (F,W,S) and can graduate with an extra course then EECS will permit enrolment in the additional course, space permitting. If the student has an OCGPA ≥ 7 and is not graduating, EECS will allow an extra course, space permitting. Because of limited course availability in Summer terms, effective Summer 2022 the limit is now reduced to two.



Know before you enrol
2.0

EECS DEPARTMENTAL POLICIES

› Enrollment:

Leading up to and at the beginning of each term, the EECS department checks pre-requisites and de-enrolls students who do not satisfy them to make space for students who do. This means we must freeze all enrollments in EECS courses a few weeks before the beginning of the term (so that de-enrolled students do not re-enroll themselves). An unfortunate side-effect of this freezing is that you are not able to transfer between sections or labs of a course. So:

- Enroll in your EECS courses early;
- Choose the section and lab you want before enrolments are frozen; and
- Carefully check that you satisfy the pre-requisites for your courses.
- If an EECS course is full, continue trying to add the course via REM, in case spaces become available.

› Reserved Spaces:

Engineering students, in most cases, cannot enroll for their major courses in A/B/C/M/N/O sections and will get a “course is reserved” message if they try. Most, if not all, seats in **E/F/G/H/I/V/X/Y/Z** sections are reserved for BEng students and if you have difficulty enrolling in these courses, you should [contact the EECS undergraduate office](#).

› Waiting List:

If you are unable to enroll in an EECS course, visit the [EECS Department “Announcements” web page](#) a few weeks before the beginning of the term to enter a waiting list request. The department will do its best to ensure that the students who need a course to make progress towards their degree get access to that course.



Troubleshooting **1.0**

EECS DEPARTMENTAL POLICIES

› What to do if your EECS GPA falls below 4.50:

- Identify the issues that caused you to receive a grade below the minimum 4.50 (C to C+) threshold.
- Do you need to improve your study skills? Explore “[GPA Requirements and Additional Support](#)”.
- Repeat EECS courses where your grades are low (especially courses where you earned a grade lower than C).
- Use resources available in your courses: ask TAs questions in labs, go to instructors' office hours for extra help, make use of supplementary readings or course resources, etc.
- If you are unsure about what courses you should repeat, [connect with an Academic Advisor](#).



Troubleshooting **2.0**

NEW

New Technical Electives (Approved, but not in Academic Calendar copy): Students are required to complete science electives and upper year technical electives. Students are permitted to choose courses from newer Academic Calendar lists. This does not change the credit requirement within the Academic Calendar you are following but allows for greater choice in course selection. For example, students following an older Calendar can choose from the updated list of technical electives appearing in the new 2025-2026 Academic Calendar for their program.

Students must complete at least 12 credits from the following course sets: List A, List B, and List C. Among these, at least two courses must be selected from List B, which consists of courses with significant laboratory experience.

LE - Electrical Engineering - List A Electives

LE/EECS 2025 - Engineering Mathematics (4.00) – NEW COURSE

LE/EECS3216 - Digital Systems Engineering: Modeling, Implementation and Validation (3.00)

LE/EECS3601 - Probability and Stochastic Processes in Communications and Signal Processing (4.00)

LE/EECS3603 - Electromechanical Energy Conversion (4.00)

LE/EECS3610 - Semiconductor Physics and Devices (4.00)

LE/EECS3611 - Analog Electronics (4.00)

LE/EECS3612 - Introduction to Sensors and Measurement Instruments (4.00)

LE/EECS 3623 - Power System Analysis (4.00) – NEW COURSE

LE/EECS3640 - Introduction to Biomedical Engineering for Electrical/Computer Engineering (4.00)

LE/EECS3641 - Introduction to Medical Devices and Biological Instruments (4.00)

LE/EECS 4202 - Introduction to Neuromorphic Computing from Principle to Hardware Design (3.00) – NEW COURSE

LE/EECS4214 - Digital Communications (4.00)

LE/EECS4610 - Microfabrication Processing Technology (3.00)

LE/EECS4611 - Analog Integrated Circuit Design (4.00)

LE/EECS4612 - Digital Very Large-Scale Integration (4.00)

LE/EECS4613 - Power Electronics (4.00)

LE/EECS4614 - Electro-Optics (4.00)

LE/EECS4621 - Advanced Power Electronic Applications (4.00)

LE/EECS4622 - Introduction to Energy Systems (4.00)

LE/EECS4623 - Renewable Energy Systems (4.00)

LE/EECS 4626 - High Voltage Engineering (4.00) – NEW COURSE

LE/EECS 4627 - Power System Protection (3.00) – NEW COURSE

LE/EECS4640 - Medical Imaging Techniques: Principles and Applications (4.00)

LE/EECS4642 - Medical Imaging Systems (4.00)

LE/EECS4643 - Biomedical Signal Analysis (4.00)

LE/EECS 4646 - Electric Vehicles (4.00) – NEW COURSE

LE - Computer Engineering - Courses with significant laboratory experience, List B

LE/EECS3603 - Electromechanical Energy Conversion (4.00)

LE/EECS3604 - Applied Electromagnetism (4.00)

LE/EECS3611 - Analog Electronics (4.00)

LE/EECS4210 - Architecture and Hardware for Digital Signal Processing (3.00)

LE/EECS4215 - Mobile Communications (3.00)

LE/EECS4352 - Real-Time Systems Practice (3.00)

LE/EECS4421 - Introduction to Robotics (3.00)

LE/EECS4422 - Computer Vision (3.00)

LE/EECS4431 - Advanced Topics in 3D Computer Graphics (3.00)

LE - Computer Engineering - Courses with insignificant laboratory experience, List C

LE/EECS3214 - Computer Network Protocols and Applications (3.00)

LE/EECS3405 - Fundamentals of Machine Learning (3.00)

LE/EECS3431 - Introduction to 3D Computer Graphics (3.00)

LE/EECS3452 - Linear Control Systems (3.00)

LE/EECS3601 - Probability and Stochastic Processes in Communications and Signal Processing (4.00)

LE/EECS4313 - Software Engineering Testing (3.00)

LE/EECS4404 - Introduction to Machine Learning and Pattern Recognition (3.00)

LE/EECS4405 - Advanced Machine Learning (3.00)

LE/EECS4441 - Human-Computer Interaction (3.00)

LE/EECS4452 - Digital Signal Processing: Theory and Applications (3.00)

LE/EECS4471 - Introduction to Virtual Reality (3.00)

LE/ESSE 3320 - Microsystems Technology (3.00) – NEW COURSE

COMPUTER ENGINEERING

RECAP

Correction:

EECS 2101 3.00 (formerly EECS 2011 3.00) was missed in original iterations of both the 2023-2024 and 2024-2025 Academic Calendars. This error has been / will be corrected. EECS 2101 3.00 is required for Computer Engineering students.

Title Change:

EECS 3604 Applied Electromagnetism (formerly Electromagnetic Theory and Wave Propagation)

Title and Credit Changes:

EECS 3601 Probability and Stochastic Processes in Communications and Signal Processing is now 4.00 credits (formerly Probability and Stochastic Processes for Electrical Engineers 3.00)

Credit Changes:

EECS 4640 Medical Imaging Techniques: Principles and Applications is now 4.00 credits (formerly 3.00)

Technical Electives with Significant Lab Experience:

All 4.00 credit courses in the Electrical Engineering 'List A' technical electives list are considered to have significant lab experience.

COMPUTER ENGINEERING

RECAP

EECS 2011 3.00 is renumbered to EECS **2101** 3.00 effective Fall 2023:

The course title remains:

“Fundamentals of Data Structures”.

The pre-requisites remain:

- Cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"), **AND**
- LE/EECS1019 3.00 or LE/EECS1028 3.00 or SC/MATH1019 3.00 or SC/MATH1028 3.00, **AND**
- LE/EECS1030 3.00 or LE/EECS2030 3.00

The Degree Progress Report (DPR) does not automatically recognize EECS 2101 as potentially satisfying or satisfying EECS 2011. An Academic Advisor will update your DPR for you upon successful completion of the course. No action is required on your part.

COMPUTER ENGINEERING

RECAP

Correction to Program Checklists (2016 to 2020):

EECS 4452 3.00 and EECS 4471 3.00 were incorrectly identified as technical electives with a significant lab component. EECS 4452 3.00 and EECS 4471 3.00 are *not* considered courses with significant lab experience. Should you have any questions, please connect with an Academic Advisor.

If **ENG 4550 3.00** was completed on or after Fall 2018 it will be counted as having a significant lab component with respect to the upper year technical elective requirement.

Replacement:

EECS 2032 4.00 will be required instead of EECS 2031 3.00. Note that EECS 2032 4.00 lists EECS 2030 3.00 as a co-requisite. Electrical Engineering students are not required to complete EECS 2030 3.00 as a co-requisite.

Replacement:

EECS 3216 3.00 will be required instead of EECS 3215 4.00.

TRANSFERS TO COMPUTER SCIENCE OR COMPUTER SECURITY

RECAP	
If transferring <i>from</i> Engineering to Computer Science or Computer Security:	
If you successfully completed this course while in Engineering:	You are exempt from this course for Computer Science or Computer Security:
EECS 1011 3.00	EECS 1012 3.00 (or EECS 1015 3.00 if pursuing Computer Science)*
EECS 1021 3.00	EECS 1022 3.00*
EECS 1028 3.00	EECS 1019 3.00
EECS 2032 3.00	EECS 2031 3.00*
EECS 3216 3.00	EECS 3215 4.00*
PHYS 1800 3.00, PHYS 1801 3.00, and/or CHEM 1100 4.00	Count toward 6.00 credit foundational science lab requirement for BSc/iBSc
ENG 2003 3.00, ENG 3000 3.0, and/or MECH 2112 3.00	Count toward 12.00 credit non-science requirement for BSc/iBSc

**These exemptions do not work in reverse. For example, if you successfully completed EECS 1012 3.00 and/or 1015 3.00 and/or EECS 1022 3.00 while in Computer Science or Computer Security and then subsequently change your program to Engineering, you must still successfully complete EECS 1011 3.00 and EECS 1021 3.00 for Engineering.*