

Updated, September 2008

McCormick

Northwestern Engineering

McCormick Student Handbook

This handbook has been developed to assist you through your time in McCormick and should be kept for future reference. For additional information visit www.mccormick.northwestern.edu/undergraduate.

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The mission of undergraduate education at McCormick:

“To support the educational processes that allow each student to grow into a professional whose engineering mind that will enable them to have an effective life career.”

Office Staff

The Undergraduate Engineering Staff is available to help answer questions. They are located in several offices on the second floor of the Tech building. Here is a listing of the staff and common reasons you may need to interact with them.

Undergraduate Engineering Office – Tech L268

- Stephen Carr, Associate Dean – academic integrity, special curricular programs
s-carr@northwestern.edu, 847-491-7379
- Joe Holtgreive, Assistant Dean – study abroad, transfer credit, academic probation, late adds and drops for courses, math placement
jjh@northwestern.edu, 847-491-3332
- Betty Modlin, Department Secretary – appointments with Dean Carr, general information
bjm@northwestern.edu, 847-491-7379

Academic Services Office – Tech L269

- Donna Tobias, McCormick Registrar – degree auditing
d-tobias@northwestern.edu, 847-491-3120
- Mary Stanton, Freshmen/Sophomore Coordinator – theme requirement, degree auditing, registration, inter-school transfer process
m-stanton@northwestern.edu, 847-491-5261
- Joanna Foley, Scheduling Assistant—ITW room reservations, general information
j-foley@northwestern.edu, 847-491-4363

Around the corner from the Undergraduate Engineering Offices: – Tech L291

- Ellen Worsdall, Assistant Dean –student activities, women and minorities in engineering programs
e-worsdall@northwestern.edu, 847-491-5173
- Gwen Murphy, Coordinator of Student Involvement – student activities, selecting a major, general information, web updates
gwen-murphy@northwestern.edu, 847-491-5195

Cooperative Engineering Education Program – Ford Engineering Design Center Room 2-350

<http://co-op.mccormick.northwestern.edu/index.ph>

Phone number: 847-491-3366

Helen Oloroso, Director

coop-dean@northwestern.edu

Thy Nguyen, Associate Director

coop-assocdir@northwestern.edu

Michelle Bledsoe, Recruitment Coordinator

co-op@northwestern.edu

Bradley Baker, Program Assistant

coop-pgmcoord@northwestern.edu

Important Items

Student ID – Your Student ID (sometimes referred to as your EmplID) is a 7-digit number. It should be found on your wildcard and you can also find it by logging into CAESAR. This has replaced the social security number as your University ID.

CAESAR – This web portal is your connection to registration and much more. Become familiar with <http://www.northwestern.edu/caesar/> and explore the information you have access to through that site.

E-Mail Communication - Electronic mail is a valid and very important communication tool that the Undergraduate Engineering Office uses to communicate with you about programs, policies and degree progress. Please make sure you regularly check and respond to e-mail from our office and office staff. E-mail is considered official communication and failure to read e-mail messages from the office or office staff is not a valid excuse for not knowing something we did pass on to you. The Undergraduate Engineering Office also limits the amount of e-mail it does send out, so you should not feel 'spammed' by what is sent.

Resources

Tech Tutoring

The McCormick Tech Tutoring Program offers drop-in tutoring in Tech LG52 Monday through Thursdays from 2 – 5 and 7 – 10 p.m. Tutoring generally starts the second week of classes and goes through Finals week. Graduate students and upperclass undergrads staff the program. It is geared toward basic math, science and engineering courses that first and second year students would be taking. No appointments are necessary, just drop in and ask for assistance. For any additional questions, contact Ellen Worsdall, Assistant Dean and coordinator of the Tech Tutoring Program.

Student Groups

There are over 20 student organizations that are connected to McCormick. Some of them are connected to specific academic departments while others are more overarching. Be on the lookout for e-mail or flyers advertising meetings and events sponsored by groups that you wish to learn more about. To find out more about a specific group, visit the Undergraduate Engineering Website or contact Gwen Murphy, Coordinator of Student Involvement.

Academic Services Office

This office located in Tech L269 is home base for all questions about your engineering degree. If you do not know whom to contact, start here.

Degree Requirements

All McCormick degrees have 48 general requirements:

- Mathematics – 4 courses
- Engineering Analysis & Computer Proficiency – 4 courses
- Basic Sciences – 4 courses
- Design and Communication – 3 courses
- Basic Engineering – 5 courses
- Social Sciences/Humanities – 7 courses
- Unrestricted Electives – 5 courses
- Major Program – 16 courses

Your major and your catalog year determine your specific degree requirements. Degree requirements may change from year to year. The default catalog year is the academic year you first entered McCormick.

Declaring or Changing Your Major – You may declare or change your major at any time. First year students will be asked to declare their major in spring quarter of the first year. Though there is no specific deadline to declare or change a major, you should be set on a major by early in your sophomore year at the latest.

Changing Catalog Years – Your default catalog year is the academic year you first entered McCormick but you are able to change to any later catalog year that happens prior to graduation. By changing catalog years, you must meet those requirements completely and changing your catalog year may have major implications for completing your degree and you should know exactly how this would impact you before making the change.

To declare or change your major or to change catalog year, stop into the Academic Services Office, Tech L269 to fill out the appropriate form.

The Undergraduate Catalog – Each McCormick student is given a paper copy of the undergraduate catalog during New Student Week. This catalog covers two years (i.e., 2003-2005 catalog) so a supplement is developed for the second year. This can be found on-line at www.registrar.northwestern.edu/nucatalog and is usually posted in October.

Degree Audit – The Academic Services Office, Tech L269, oversees your official degree audit. This office will track the courses you have taken and your progress to the completion of your degree requirements. In addition, there is an electronic degree audit feature on CAESAR. The Academic Services Office staff works closely with the Registrar's Office staff to maintain this audit, but do keep in mind that the Academic Services Office audit is the official audit. You can stop into the office anytime to see your progress to degree and will periodically be notified to stop in and pick up a copy of your audit. It is ultimately your responsibility to ensure you meet all degree requirements.

Degree Paperwork – To assist in completing your requirements, the Academic Services Office does ask that you complete several items of paperwork to allow the office to accurately track your degree. These include:

Degree Application – This document tells us when you plan to complete your degree. It should be filled out at least 3 quarters prior to your intended graduation.

Theme Form – This tells us how you plan to complete the Social Science/Humanities Theme requirement and also serves as the method of having your option approved as a valid theme. This should be submitted by the end of your sophomore year.

Specialization Form – some majors require an additional form to grant approval for technical electives (that being courses you can choose within your major requirements).

Curriculum Petitions – Anytime you wish to complete a degree requirement in a way other than specifically outlined in the curriculum, you must submit a petition.

Course Duplicates

Some courses at the University cover substantially the same subject matter. If a pair of courses considered to be duplicates is taken, only one of them can be used to fulfill *any* requirement of a McCormick degree or certificate. Duplicates are not alternatives from which to choose. If courses A and B are listed as duplicates and a student is required to take course A but instead takes course B, then that student will nevertheless be held to the requirement of course A. Course B cannot in such a case even be used to fulfill one of the unrestricted elective requirements. Direct any questions about course duplicates to the Academic Services Office, Tech L269.

The following are the sets of course duplicates. An "&" indicates that the courses are duplicates of each other. A course can be a duplicate of a combination of courses, in which case the combination is indicated with courses linked by "and".

Biological Sciences

BIOL SCI 210-1 & BIOL 110-1
BIOL SCI 210-2 & BIOL 110-2
BIOL SCI 210-3 & BIOL 110-3
BIOL SCI 212-1 & BIOL SCI 210-2
BIOL SCI 212-2 & BIOL SCI 210-1 and BIOL SCI 210-3

Computer Science

COMP SCI 110 & COMP SCI 111 (**ONLY** if COMP SCI 111 is taken first)
COMP SCI 211 & ECE 230 (for Computer Science Majors Only)

Chemistry

CHEM 171 & CHEM 102
CHEM 172 & CHEM 103
CHEM 212-1 & CHEM 210-1
CHEM 212-2 & CHEM 210-2
CHEM 212-3 & CHEM 210-3

Electrical and Computer Engineering

ECE 203 & ECE 201
ECE 221 & ECE 242
ECE 222 & ECE 243
ECE 224 & ECE 301
ECE 225 & ECE 306
ECE 230 & ECE 231

Engineering Science and Applied Math

ES APPM 252-1 & MATH 230 (formerly 214-3)
ES APPM 252-1 & MATH 234 (formerly 215)
ES APPM 253 & MATH 221
ES APPM 253 & GEN ENG 205-4
ES APPM 253 & GEN ENG 206-4

General Engineering

GEN ENG 205-1,2,3,4 & PHYSICS 135-1 and CIV ENG 212 and MATH 240 (219) and MATH 250 (221)

GEN ENG 206-1,2,3,4 & PHYSICS 135-1 and CIV ENG 212 and MATH 240 (219) and MATH 250 (221)

GEN ENG 206-1 & GEN ENG 205-1

GEN ENG 206-2 & GEN ENG 205-2

GEN ENG 206-3 & GEN ENG 205-3

GEN ENG 206-4 & GEN ENG 205-4

Industrial Engineering and Management Science

IEMS 201 & STAT 210

IEMS 202 & MATH 330-1

IEMS 224 & ECON 260

IEMS 303 & STAT 320-1

IEMS 304 & STAT 320-2

Materials Science and Engineering

MAT SCI 201 & MAT SCI 203 & MAT SCI 301

MAT SCI 314 & CHEM 342-1 (Material Science Majors Only)

Mathematics *Numbers in () are previous numbers for courses*

MATH 290-1 & MATH 240 (219)

MATH 290-2 & MATH 230 (214-3)

MATH 290-3 & MATH 234 (215)

MATH 360-1 (340-1) & MATH 250 (221)

MATH 281-1 (291-1) & MATH 230 (214-3)

MATH 281-2 (291-2) & MATH 234 (215)

MATH 281-3 (291-3) & MATH 240 (219) and MATH 250 (221)

MATH 285-1 (292-1) & MATH 240 (219)

MATH 285-2 (292-2) & MATH 230 (214-3)

MATH 285-3 (292-3) & MATH 234 (215)

Physics

PHYSICS 135-1 & PHYSICS 125-1

PHYSICS 135-2 & PHYSICS 125-2

PHYSICS 135-3 & PHYSICS 125-3

PHYSICS 130-1 & PHYSICS 135-1

PHYSICS 130-2 & PHYSICS 135-2

PHYSICS 130-3 & PHYSICS 135-3

Advanced Placement/International Baccalaureate Credit

The University recognizes and awards credit for some high scores on AP and IB exams. The Weinberg College of Arts and Sciences coordinates the awarding of credit for all Northwestern undergraduates. The score on an exam and when you entered Northwestern determines what credit, if any, is awarded. Visit <http://www.wcas.northwestern.edu/advising/ap.html> for specific listing of credits awarded. Credit is not official until it appears on your University transcript.

There are some limitations on how AP/IB credit can be used toward a McCormick degree. Credit earned for the Physics B exam (Physics 130-1 and/or 130-2) CANNOT be applied to any of the requirements for an engineering degree (not even unrestricted electives). Credit for the Physics C-1 Mechanics exam (Physics 135-1) is duplicated by the Engineering Analysis course sequence and CANNOT be applied to your degree – the only exception being students who have been officially exempted from taking the EA sequence.

Other credits can be used wherever they may fit a requirement – social science or humanities credit may be used as part of your theme. AP/IB credits could also fulfill unrestricted elective units.

P/N (Pass-No Credit) Grading Option

A maximum of eight courses may be taken by undergraduates under the P/N Option, and used toward the degree. During the freshman and sophomore years, only one course may be taken in any quarter under the P/N Option. Junior, pre-senior and senior students are not subject to any limitations in a given quarter other than the overall guidelines.

None of the required Mathematics, Basic Science, Basic Engineering, Engineering Analysis and Computer Proficiency, or Design and Communication courses can be taken P-N. Some departments allow a limited number of courses in the major program to be taken P/N. Refer to the Academic Services Office for current limitations.

Advising and Registration

Advising - McCormick feels academic advising is very important. Each student always has an assigned academic advisor. First-year students are assigned an advisor for their first year and then move on to advisors in the department of their major as they enter the sophomore year.

An e-mail message is sent out each quarter prior to the advising and registration process to detail the timeline for the upcoming term. That information is also duplicated on the web: www.mccormick.northwestern.edu/undergraduate. Each quarter a student should make sure they are aware of the deadlines for adding, dropping and changing the grade option of a course.

Students are required to meet with their advisors at least once per quarter. In order to be able to register for the subsequent quarter, students will need to turn in a Study Plan to the Academic Services Office, Tech L269, signed off by the academic advisor. A registration hold is put on each student's account and is only removed after the office received that signed form.

Registration – Students register for classes towards the end of the previous quarter. A student is able to log onto CAESAR after the start of his or her appointment time to register for courses. A student can only register for 4.99 units of credit during the advanced registration period. A 5th course (or any course which will put the student over 4.99 units) can only be added during the first week of classes.

Registration Holds - The Undergraduate Engineering Office, as well as other offices on campus, may place additional holds on a student's account for varying reasons. One example is the advising hold detailed above. Students can view any and all holds that are currently on their account by logging into CAESAR. Further instructions on how to remove those holds are always listed. Be sure to check prior to registration if you have any holds and clear them up so you are able to register when your appointment time occurs.

Policies

McCormick Reading Period

Reading Period is defined as the final classes in a given quarter. In McCormick the following conditions apply.

- There should be no new (additional) material introduced in a course after the last Wednesday of the Quarter.
- Final Exams are not to be given before the end of the last week of classes.
- Other than in the case of a paper or project report in lieu of a Final Exam, the deadline for all materials to be submitted for a grade normally must be submitted no later than 5:00 pm on the Saturday before Exam Week.

Certification Forms

The Office(s) of the Dean and the University's Division of Student Affairs will consult with one another as necessary, and share with one other the contents of a student's education records, including but not limited to any disciplinary or academic integrity/dishonesty records, for the purpose of completing any certification forms (or other comparable forms) that a student requests be submitted to any and all graduate schools (or other institutions of higher education), employers, accrediting/licensing bodies, or government agencies in connection with an application for admission, employment, or accreditation/licensure. The Office(s) of the Dean and the University's Division of Student Affairs will disclose on such certification/application forms sanctions of suspension or exclusion from the University imposed pursuant to applicable academic integrity/dishonesty procedures and sanctions of removal from and/or relocation within University housing, probation, suspension, and exclusion imposed pursuant to the University's disciplinary procedures.

Academic Integrity

All incoming students are given a copy of McCormick's Academic Integrity statement. Students are required to sign that they understand that the statement exists and that there are serious consequences for violating the statement. The statement can be found on the web:

http://www.mccormick.northwestern.edu/undergraduate/academic_integrity.php