Introducing the McCormick Advising System!

The McCormick Advising System exists exclusively for McCormick students as a tool for monitoring degree progress. In the system, you are able to view your audit based upon your declared McCormick major and catalog year. Students can see their completed courses, courses currently in progress, as well as course requirements that remain unfulfilled. In addition, information related to your adviser and your GPA can all be viewed in MAS, plus more!

The system can be accessed by the web address mas.mccormick.northwestern.edu

Once there, simply use your net ID and password to access your audit. Check it out today!
Meet the New MOPD Board Members!

The MOPD Student Advisory Board supports the mission of MOPD by contributing to the development, planning, and implementation of programs for McCormick undergraduates. Board members have significant input into MOPD programs and offer insight into the interests and needs of students. This year’s new members join veteran members Alexandra Lamens, Mindy Chua, and Isabelle Orrico, as well as Director Joe Holtgrieve, Heather Bacon, and Tana Gahlinger.

Aliyah Lee
Class: Sophomore
Major: Industrial Engineering
Hometown: Los Angeles, California
About: In addition to being on the MOPD Board, I am the Finance Chair of the National Society of Black Engineers, work at Norris as an Audio/Visual Technician, and as a Cookie Enthusiast at Project Cookie. In my free time I like cooking, dancing, and playing video games with friends.

Andrew Radant
Class: Sophomore
Major: Applied Mathematics
Hometown: Ann Arbor, Michigan
About: I hail from the maize and blue of Michigan and have gradually learned to stop cheering Go Blue when we score touchdowns. I’ve also learned that we have an amazing lineup of a cappella and comedy groups on campus and try to go to as many shows as possible. If I ever have the time I also love to go into Chicago to enjoy the Art Institute (we get in for free!), shop on Michigan Ave, and eat my way through the restaurant district.

Paige Janac
Class: Freshman
Major: Computer Engineering
Hometown: Saratoga, California
About: Outside of engineering, I enjoy drawing, painting, and baking. As a hobby, I decorate cupcakes and cakes. During the summer, I participated in the EXCEL program at Northwestern and I got to meet a lot of cool freshmen and upperclassmen. I volunteer for the Special Olympics at Northwestern and I am part of Best Buddies. I look forward to the rest of my freshman year :)

Mitchell Zubieta
Class: Sophomore
Major: Chemical Engineering
Hometown: Denver, Colorado
About: In addition to the MOPD Board, I’m a mentor for the Gateway Science Workshop program and Historian for Slivka RC. I am a huge music and sports fan (read: depressed Broncos fan), and in my free time listen to indie hipster garbage and root for my hometown teams. I think I’m pretty funny, but I have a dumb sense of humor and few people would agree with me.
Check out the MOPD website!

The MOPD website is a great resource for McCormick students, including information on major selection tools and info on unique opportunities around campus. Read on for more information on some of the current features and click here to access the full site!

Major Snapshots

Missed the McCormick Major Fair but still undecided about which major is right for you? The MOPD website has many tools available to help you learn about each McCormick major.

Visit the Academic Life page to view snapshots by major, which provide information including:

- The field’s top 5 challenges in the next 5 years
- Graphical representations of how upperclassmen spend their time learning
- Plans of graduating seniors ’08-’12
- Examples of positions held by ’12 grads
- Interesting upper-level courses
- Research areas
- Clubs and other organization info
- Faculty contacts
- Ways to learn more!

Featured Faculty Profile: Alvin Bayliss

Professor Bayliss is in the Engineering Sciences and Applied Mathematics Department here at Northwestern.

His research interests include numerical solution of partial differential equations, especially those modeling combustion, solid mechanics, wave propagation, and fluid dynamics.

He has a B.S. in Physics from City College of New York and an M.S. and Ph.D. in Mathematics from New York University.

Professor Bayliss loves movies and fitting in a workout before work in the mornings. Some of his achievements he is most proud of are the several publications he has worked on with both undergraduate and graduate students.

Learn more about Professor Bayliss on the MOPD website.
Helpful Hints from Heather

Registration can be overwhelming. Heather Bacon has some tips on keeping the process as stress free as can be!

- Check CAESAR for any registration holds well before your appointment time. Holds are placed by numerous offices across campus for many different reasons. If you see a hold in your CAESAR account, click on it for more details so you know how to go about getting it removed.

- Remember to meet with your faculty adviser to get your study plan signed. Your faculty adviser is listed in the McCormick Advising System (mas.mccormick.northwestern.edu).

- If you don’t know, ask. Whether it’s questions on degree requirements or on improving study skills, feel free to come to the Undergrad Engineering Office in L268-269 or the McCormick Adviser offices in Ford 1.200. We’re here to help!

Freshman Advisor Drop-In Hours

All McCormick freshman are welcome to attend these drop-in hours, regardless of your faculty advisor. Held weekly every Tuesday-Thursday from 1:00-4:00 pm, this can be a great opportunity for you to have your questions answered!

  - **Tuesday:** Richard Freeman, Ford 1.207
  - **Wednesday:** Janice Mejia, Ford 1.206
  - **Thursday:** Emma DeCosta, Ford 1.205
  - **Friday:** Ken Gentry, Ford 1.208

Featured Courses

**PRDV 395, EI 101: Emotional Intelligence: Managing Yourself, Maximizing Your Potential**

Back by popular demand, this course will be offered in Spring Quarter for the first time. Students study theories of EI and how they relate to personal and organizational success and also have the opportunity to examine their social and emotional strengths and weaknesses and learn how to perceive and effectively manage emotions within themselves and with others. This course can be applied toward your theme, as an SBS. Offered Tu Th, 4-5:20 pm.

**PRDV 397, Whole-Body Thinking: Collaborative Problem Solving Through Partner Dancing**

This course introduces students to rhythmic partner dancing to explore how meeting the challenges of moving in synchrony with one another can serve as a metaphor for collaborative problem-solving. Offered Mon. 4:30-5:50, plus a TBD lab time once a week.

To request a place in the course, email Tana Gahlinger at tana.gahlinger@northwestern.edu by March 7th, including a brief description of why you wish to be a part of the course.
Opportunities and Events

Theme Workshop
Learn about the theme component of your McCormick degree and which classes can help fulfill your theme requirements. Have your questions answered!

- February 17th
- 4-5 pm
- Tech L170

Undergraduate Research Grants
Summer Undergraduate Research Grants provide $3,000 stipends to students pursuing 8-week independent research projects. The application deadline is March 14th, 2014.

If you’re thinking about applying for summer research grants through the Office of Undergraduate Research, plan to attend the Intro to Proposal Writing workshops, which are tailored by discipline. Sign up for these through Facebook Events.

For more information see this Additional Info or visit the Undergraduate Research Grant website at undergradresearch.northwestern.edu/summerurg

Medill on the Hill
Interested in today’s public policy issues? Northwestern in the Nation’s Capital is your chance to learn how Washington D.C. and some of its finest industries operate, all while earning Northwestern credit! This is your chance to rub elbows with today’s policy movers and shakers. You can begin gaining firsthand experience as early as Winter Quarter 2015.

Interested? Contact Professor Shearer at shearer@northwestern.edu

Click here for more information.

CAPS Workshops
The Counseling and Psychological Services Office at Northwestern is offering several workshop series focusing on stress management for students.

Workshops include:
- Introduction to Mindfulness
- Relaxation Techniques
- Success Strategies
- Plus drop-in meditation groups!

Find more info and sign-up at http://www.northwestern.edu/counseling/students/workshops/index.html
Advising Notes

Chemical and Biological Engineering

- Two sections of CHE 395: Special Topics will be offered – 1) Computer-aided Modeling of Reactive Systems, MW 4-5:50pm, and 2) Quantitative Methods in Life Cycle Analysis, TF 2-3:20pm.
- Minor in Biotechnology and Biochemical Engineering provides training for students interested in the pharmaceuticals, biomaterials, biofuels, and other industries using the tools of modern biology. Find out more: http://www.chbe.northwestern.edu/undergraduate/cert_biotech.html
- Students with a GPA of 3.5 or higher may apply to the Honors Program during their Junior year. The Honors Program requires a two-quarter course sequence of independent study (Chem Eng 399) and three units of approved advanced study. If interested, contact your advisor and the Honors Program advisor (Prof. Cole).

Civil Engineering and Environmental Engineering

- BSCE students should take CIV ENV 216 for the sophomore or second year of a 4 year plan since a laboratory component is required.
- Technical electives: Under the current catalog year, only one 399 can be counted and must be from the Department of Civil and Environmental Engineering (CIV ENV 399). This applies to both the BSCE and BSEE programs.
- Students interested in pursuing the BS/MS option with a MS portion being in the Department of Civil and Environmental Engineering need to follow the procedures presented on the Departmental website.
- Members of the Northwestern ASCE and EnvEUS Student chapters will be available for peer advising.
- There are several scholarship opportunities available to ASCE and EnvEUS members from various professional organizations, check CEE website.
- Begin your search for a summer internship now, if you have not already done so. Position offerings for firms are already beginning to fill up.
- ABET criteria for civil engineering program requires the basic science courses to include a natural science course (i.e., non-chemistry and non-physics). Hence, the choices for the 4th basic science course are: BIOL_SCI 215 – Genetics and Molecular Biology, BIOL_SCI 216 – Cell Biology, BIOL_SCI 217 – Physiology, EARTH 201 – Earth Systems Revealed, and EARTH 202 – Earth's Interior

Additional Notes:

- CHEM 171 may replace CHEM 101 and 102, thus a total of 3 courses are needed to satisfy the Basic Science requirements.
- Each of the BIOL_SCI 215, 216, and 217 has a companion lab (BIOL_SCI 220, 221, and 222 respectively) that carries 0.34 units each. The companion labs are not required to meet this 4th unit of Basic Science requirement for BSCE.
- 300 level and above Earth and Planetary Science courses may be petitioned to meet the non-chemistry/physics basic science requirement if the faculty teaching or the department offering the course would confirm, in writing, the course as a science course.
Computer Engineering

Two new courses available to students:

EECS 368/468: "Programming Massively Parallel Processors with CUDA" will be offered during the 2014-2015 academic year. This course focuses on developing applications software for GPUs (graphics processors with massively parallel computing resources). This course brings together people with strong programming skills, with people with a strong need for solving compute-intensive problems. Students may alternatively register for the 400-level version of the same course. The classroom material is identical, but students taking this course for 400-level credit will work on a quarter-long open-ended final project that draws upon their own interests and line of research. Note that a student can count at most one of 368 or 468 towards the degree requirements. Prerequisites: EECS 211 or EECS 230 or EECS 231 or equivalent C programming experience.

EECS 395/495 – Special Topics: Embedded Systems Embedded systems are systems other than standard PCs and laptops in which there are one or more processing elements combined with other hardware to perform a special function. Embedded systems are ubiquitous in modern society; cars, ATMs, medical equipment, factory equipment, in fact almost every modern convenience, contain micro-processors. More computing elements are used in embedded and cyber-physical systems by far than in general-purpose computers. The design of embedded and cyber-physical systems will be a major endeavor for computer engineering for many years to come. The design of embedded systems involves much more than just the selection of hardware. Embedded systems are typically complex networks of cooperating modules, each of which can be a combination of processing unit(s) software, and special purpose hardware. Designing such systems requires both models of computation and models of communication, as well as considerations of real time requirements, cost, reliability, and many more critical issues. This course will introduce students to methods for designing, analyzing, and implementing embedded and cyber-physical systems.

Electrical Engineering

- For students considering EE or CompE as a major, EECS 100 provides a broad introduction to these fields by a mix of seminars and lab tours. It will be offered in the spring on MTuWF.

- All EE majors are required to take a senior “capstone” Electrical Engineering Design course. Options for the spring include EECS 392 or a EECS 399 design project. For a 399 project to count it must be taken when a student has senior standing and the student must file a form signed by the advisor that states that this is a suitable design project. Forms can be found in the EECS Undergraduate Study manual (http://www.eecs.northwestern.edu/images/docs/manuals/undergrad_study_man.pdf)

Industrial Engineering

- Waitlist requests for IEMS courses are handled directly by the department. To submit a waitlist request, visit https://sites.google.com/a/u.northwestern.edu/iems-undergraduate-program/home/wait-list-policy and take care to read all of the instructions posted there. You may not submit a waitlist before your registration appointment time has arrived. Note that adding yourself to a waitlist in Caesar will not put you on the course waitlist in the department. Sometimes seats are reserved for IE majors. If you are not able to register even when seats appear to be available, submit a waitlist request.

- IE Group advising in winter for new transfers to IE will take place on Friday, Feb. 14 (2-3:30) and Friday, Feb. 21 (4-5:30). If you are a sophomore or junior, have recently transferred into IE, and have not yet attended group advising, sign up on the door to C122 to attend one of these sessions. Once you have attended group advising, you will be assigned a permanent IE advisor. Have questions? Contact Prof. Wilson (jill.wilson@northwestern.edu).

- Are you on the IE listserv? We have a weekly newsletter with information about advising, job and internship opportunities, and student life. If you would like to be added to the listserv, contact Prof. Wilson (jill.wilson@northwestern.edu)
**Industrial Engineering Continued**

- **maxImIzE Potential!** Connect with IIE—the Institute of Industrial Engineers—and become a part of IE student life!
- Did you know that IIE has a mentorship program that pairs freshmen IEs with upper class IE students? This is a great way to learn more about what IE is like from a student perspective, get advice on course selections, and more. If you would like a mentor or more information, contact Zueber Juma (ZueberJuma2015@u.northwestern.edu)
- Come to dIvErsion and meet fellow IEs! IE undergrads and faculty meet Wednesdays from 12:30-1:30 in C122 for hot drinks, sweet treats, lively conversation, and occasional entertainment. Stop by and meet some of your fellow IE students! This is also a great way to get input from other IE students about classes, recruitment, career choices, and other aspects of IE.
- Sign up to play IM softball or soccer (or both!) in spring quarter with The Industry. Email Chris Gradone (RichardGradone2015@u.northwestern.edu) if you’re interested.

**Materials Science**

- **Freshmen MatSci majors** should consider taking MatSci 301 in spring (pre-req Chem 102). This course is for MSE and ChBE majors.
- **MatSci Technical Electives** – Spring quarter MatSci electives include MatSci 336 Chemical Synthesis of Materials (junior standing in MSE or consent of instructor), MatSci 360 Introduction to Electron Microscopy (pre-reqs MatSci 301 & Phys 135-2,3), and MatSci 382: Electrochemical Energy Materials and Devices (pre-req senior standing in MSE or consent of instructor). Details are found [here](#).
- **The Materials Science and Engineering Departmental Honors Program** – Students may apply to this program after their sophomore year. At the time of application, the student’s cumulative GPA must be 3.50 or higher and the 3.5 must be maintained until graduation. Students must register for a quarter of MatSci 394 Honors Project prior to 396-1 and 396-2 Senior Project. If you are a junior and plan to pursue the Honors Program, you should discuss this with your academic and research advisors and you should sign up this quarter. The honors application form must be turned in to the Tech Registrar.

- **Summer Research** – The deadline for the NU MSE Meister summer research awards (freshmen and sophomores in MSE) is April 1. The deadlines for most summer research programs funded by NSF, DOE, etc. are in February and March. Details on the Meister summer research awards are found [here](#).

- **Student Awards** – the deadline for awards to NU MSE seniors, juniors and sophomores is May 1. Submit an Application [here](#).

**MatSci Upcoming Events**

**Open House for Freshmen interested in MatSci**
3p.m. Friday February 21, 2014
Cook Hall 2058
*Find out about the major, classes, research opportunities, jobs, co-op and internships, careers…etc.*

**MatSci Mixer: Game Night**
~ 4p.m. Friday, February 21, 2014
Tech C115 Bodeen Design Studio
*Meet and get to know upperclassmen in MatSci! Get the straight-dope from those who know best!*
**Explore, Engage, Transform**

Are you more than just brains and good looks? Do you have hidden skills that you can’t show off in EA? If so, we want you! Now is the time to begin thinking about your act. Video submissions will be accepted beginning in Late March. Keep an eye on the [MOPD Website](#) for more information!

**CONTACT US:**

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**5 Core Competencies**

- awareness  
- fidelity  
- self-reliance  
- optimization  
- resilience

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**Looking Ahead to Spring Quarter:**

**The 3rd Annual Tech Factor!**