The Quarterly

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Reminders

• May 5-9: Advising Week for Fall Quarter Registration
• May 19–23: Registration Week for Fall Quarter

MOPD Speaker Series

Joe McCormack Recap: Less is More!

Consultant and author Joe McCormack recently spoke to students about the importance of brevity in today’s world of constant communication. As a consultant to some of the nation’s top companies and the author of *Brief: Make a Bigger Impact by Saying Less*, Joe is an expert on the subject of crafting your message, or “pitch”, to maximize its impact.

Joe emphasized the importance of knowing your audience, which is essential when you desire others to understand and accept your idea. Engineers often work with non-engineers who don’t share the same level of technical understanding. A common mistake engineers make is communicating all they know rather than how much their colleagues have the capacity to understand, losing the impact of their message in the process.

In addition to Joe’s presentation, a guest panel included Medill Faculty Member Abigail Foerstner, a journalist who specializes in science writing and sustainability, and Northwestern alum Mert Iseri, Co-founder of the company Swipe Sense, who has learned the importance of brevity as he competes for attention as an entrepreneur.

To read more about the event, see a related article here

To see past speakers on a range of related topics, visit the Videos page on the MOPD website.

The McCormick Office of Personal Development serves to foster student growth through a wide variety of programs and events, including speakers. If you have ideas for future guest speakers, or topics that you would like to see featured, email us at McCPersonalDev@northwestern.edu
Join the MOPD Student Advisory Board!

The mission of the McCormick Office of Personal Development (MOPD) is to encourage each engineering undergraduate to:

**Explore** personal strengths, values, and goals; and explore opportunities to build essential skills

**Engage** with academic, professional, and extracurricular experiences in an intentional way

**Transform** into an adult with a clearly defined sense of purpose and the skill set to succeed

MOPD seeks to accomplish its mission through fostering **five core competencies**:

- **Awareness**: Leveraging intellectual curiosity and confidence to question in the formation of personal, professional, and civic identity

- **Optimization**: Identifying tensions among competing resources and desired outcomes, and applying resources to accomplish goals

- **Fidelity**: Loyalty to a consistent level of quality and integrity based on internal motivations rather than external demands or rewards

- **Resilience**: Persevering in the midst of challenging situations

- **Self-Reliance**: Confidently applying knowledge of one’s self in the service of your values and goals in the face of uncertainty

The Student Advisory Board supports the mission of MOPD by contributing to the development, planning, and implementation of programs for McCormick undergraduates. Board members will have significant input into these MOPD programs and will offer insight into students’ interests and needs.

**Interested? Submit a statement to** McCPersonalDev@northwestern.edu
Community

**Featured Faculty Profile: Professor Bruce Ankenman**

Professor Ankenman is the Director of the Segal Design Institute where he focuses on the full process of design for optimal performance. He is very proud of the DTC program in McCormick where he enjoys helping students learn how to “make things work.”

Bruce holds a PhD in Industrial Engineering from The University of Wisconsin-Madison. He received a MS in Manufacturing Systems Engineering and a BS in Electrical Engineering.

Learn more about Bruce by reading his [interview](#)!

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**Featured Student Artist: Julius Tucker**

Julius is a McCormick student and jazz musician, pursuing a dual degree in Civil Engineering and Jazz Piano Performance. He has carried his love of and appreciation for music with him to his studies in McCormick.

To Julius, Whole Brain Engineering means being able to apply creativity and innovation to the study of even technical material within the engineering discipline. Outside of the classroom, Julius performs with the jazz ensemble Syndicate 119.

Learn more about Julius by reading his [interview](#)!

Watch Julius perform with Syndicate 119 [here](#)!

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**Learn more about the Theme Requirement!**

*Tuesday, May 6th*
*Time 4:00—5:00 pm*
*Location: Tech, L251*

The theme advising workshop is a great opportunity to learn more about the seven-course social sciences and humanities requirement that all engineering students must complete by graduation. Come get the details on how to complete your theme!

If you cannot attend the theme workshop but would like to discuss the composition of your theme, please email Tana Gahlinger at [tana.gahlinger@northwestern.edu](mailto:tana.gahlinger@northwestern.edu) to schedule an appointment.
Advising Notes

The staff of the undergraduate advising office, located in Tech L269, are here to help you. As you prepare for registration, check out these tips to ensure that the registration process goes smoothly!

- Advising in spring will help you to plan not only your Fall 2014 schedule, but will surround the entire 2014-2015 academic year. To prepare for this meeting, consult the yearly course planning tools available [here](#).

- Freshmen in ChemE, IE, ME, and Civil/EnvE: Be sure to attend a group advising session (this is where you will receive your sophomore year study plan). Information on dates and times of group advising is being sent through your departments.

- Freshmen in all majors other than ME, IE, and ChemE: Your department may have a mandatory group advising session but you will need to pick up your study plan in L269. Group advising information will be sent by your department. Unless directed by your department to only attend group advising, you should sign up for an advising appointment with the advisor listed on your study plan.

- Sophomores and Juniors: Your study plans have been sent to your faculty advisors. Unless you have received an email stating that your advising assignment has been changed, you should meet with the same person you’ve been seeing throughout the year.

- Seniors: Those of you graduating in June or August 2014, pick up the envelope with your name on it that is outside of L268, if you have not already done so. These envelopes contain information on receiving your diploma and details on the MEAS convocation.

Enjoy the remainder of the 2013-2014 school year!!

Advising by Major

Applied Math

- Within the applied math major, students stay with their same advisor for their entire time in the major. If you are new to the major and you don’t already have an advisor, then your advisor depends on your class. If you are a rising sophomore or senior, then see Professor Riecke. If you are a rising junior, then your advisor is Professor Silber.

- Forms for a dual engineering degree, and for the department honors program can be found [online](#).
Biomedical Engineering

- **Current Freshmen:** You are now transitioning to a departmental advisor who will stay with you for the rest of your undergraduate career, although in some cases a change of advisor becomes necessary. You will get an email message about who your advisor is from the BME department. Your advisor can discuss summer plans and career opportunities with you, as well as courses. Thus, you should take the responsibility for keeping track of your progress and requirements, and become familiar with the resources, including forms for many purposes, available here: [http://www.mccormick.northwestern.edu/undergraduates/current_students/index.html](http://www.mccormick.northwestern.edu/undergraduates/current_students/index.html)

- **Drop in hours:** If you can’t arrange to meet with your advisor, or have a situation for which you would like further advice, there are two options: Professor Carroll (Director of Undergraduate Studies) will be having office hours on May 7 from 10 to 3 (Tech E336). Please alert him that you will be coming in advance ([t-carroll@northwestern.edu](mailto:t-carroll@northwestern.edu)). Professor Linsenmeier (Director of Advising) will be having office hours on Monday, May 12 from 4 to 6 PM (Tech E368). No advance notice is necessary for Professor Linsenmeier.

- **Seniors:** Applications for the three senior awards are due on Monday May 5. Seniors should have received details about this recently. If you can’t find this message, please contact Erin McElhenie in the BME office ([erin.mcelhenie@northwestern.edu](mailto:erin.mcelhenie@northwestern.edu)) for a copy of the requirements.

- **BS-MS options:** If you are a student who can complete the BS requirements in less than four years, you might want to consider the simultaneous BS/MS program, with both degrees in the same discipline or in different engineering disciplines. More info is at: [http://www.mccormick.northwestern.edu/undergraduates/programs/honors_and_combined_programs/masters_for_undergraduates.html](http://www.mccormick.northwestern.edu/undergraduates/programs/honors_and_combined_programs/masters_for_undergraduates.html)

- **Advising resources for BMEs** can be found at: [http://www.bme.northwestern.edu/undergraduate/](http://www.bme.northwestern.edu/undergraduate/)

- **Transitioning to new BME Undergraduate Requirements:** Current students can choose to follow the old curriculum or the new curriculum. These two curricula are posted here: [http://www.bme.northwestern.edu/undergraduate/curriculum%20and%20forms/index.html](http://www.bme.northwestern.edu/undergraduate/curriculum%20and%20forms/index.html)

- **LinkedIn** - make sure to join the Northwestern Biomedical Engineering group. Make great connections through networking on this page!

Chemical & Biological Engineering

- Two sections of CHE 395: Special Topics will be offered – 1) Differential Geometry, MW 4-5:20pm. 2) Nanoscale Phenomena and Bionanotechnology, MWF 11-11:50am.

- 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

- 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](mailto:Prof.Cole)).
Computer Engineering

- Professor Hai Zhou will teach a new special topics course "EECS395/495: The Art of Multicore Concurrent Programming" in Fall 2014.

  Course Description:
  You will not get the automatic speedup for your software when you upgrade to a new computer, since the frequency scaling is virtually stopped, and you only get more cores on new machines. For speed, you have to do concurrent programming for multicores. This course will teach you how to do it effectively. We will start with synchronization primitives, mutual exclusion, and consensus, and talk about different programming models such as multi-threading, locking, and transactional memory. We will also discuss how to debug and check concurrent programs, which may give your different behaviors for different executions.

Computer Science

- EECS 101 is an introduction to computer science designed to demonstrate a broad swath of CS (unlike a conventional introductory course, which focuses on teaching programming).

- EECS 111 is our first course in the major (and minor) -- it has no overlap with AP CS and cannot be placed out of.

Electrical Engineering

- All EE majors are required to take a “capstone” Electrical Engineering Design course during their senior year. In the fall, this can fulfilled by taking 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

- EE majors may take either EECS 211 or EECS 230 to satisfy their programming requirement.

- Beginning fall of 2014, EECS 111 will be a required prerequisite for taking EECS 211 and so students wishing to fulfill their programing requirement this way will need to first take EECS 111 as an unrestrcited elective. Note EECS 211 is a prerequisite for many of the more advanced computer science courses and so students interested in taking additional technical electives in computer science are recommended to take EECS 211.

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.
• The IE Group Advising schedule in spring for rising sophomores and new transfers to IE will take place at the beginning of May. If you are a rising sophomore IE, or a sophomore or junior who has recently transferred into IE and has 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. If you have a conflict with each of these sessions or have questions, contact Prof. Wilson (jill.wilson@northwestern.edu). Sign up early to get your preferred date and time.

• 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)

• maxIImIzE Potential! Connect with IIE—the Institute of Industrial Engineers—and become a part of IE student life!
  
  o Did you know that IIE has a mentorship program that pairs underclassmen 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) We are also looking for upperclassmen to serve as mentors.

  o 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.

Materials Science

• MatSci 190: MS&E Freshmen Seminar is a hands-on lab class that offers instruction in theory and use of scanning electron microscopes. A great class for prospective MSE majors or students who are undecided about their major.

• Rising MSE sophomores should take MatSci 301: Materials Science Principles (if they haven’t yet; pre-req Chem 102) and MatSci 314: Thermodynamics of Materials (pre-req Chem 103).

• Rising MSE juniors typically take core classes MatSci 316-2: Microstructural Dynamics and 332 Mechanical Behavior of Solids; some juniors may take MatSci 391 Process Design.

• MatSci technical electives Fall 2014: MatSci 341 Intro to Modern Ceramics (pre-req 316-1&2 or consent of instructor), MatSci 360 Intro to Electron Microscopy (pre-reqs MatSci 301 & Phys 135-2,3), MatSci 380 Intro to Surface Science and Spectroscopy (pre-req MatSci 351-1 or equivalent). More details are found here:

• Student Awards – the deadline for awards to NU MSE seniors, juniors and sophomores is May 1. Review eligibility and application requirements here

• The Materials Science and Engineering Departmental Honors Program – Students may apply to this program after their sophomore year. A cumulative GPA of 3.5 or higher must be maintained. 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 following form must be turned in to the Tech Registrar.
**Featured Courses and Opportunities**

**LDRSHP 204 – Paradigms & Strategies of Leadership**

Tu: 6-9pm, *Counts as SBS towards theme requirement*

This course introduces you to the requirements for effective leadership:

- How to ask powerful questions
- How to inspire others
- How to mobilize difference to maximize team performance
- How to know your strengths and play to them
- How to lead change
- How to leverage adversity and failure

Last year’s presenters included: Tom Ricketts, owner of the Chicago Cubs, Martha Lavey, Artistic Director of Steppenwolf Theater, Caleb King, M.D./PhD and MORE!

After completing the course, you have the option of going on to earn Northwestern’s Leadership Certificate by enrolling in the Undergraduate Leadership Program. McCormick students who complete the certificate can count it as a leadership theme toward fulfillment of their graduation requirements.

Want more information? [Click here!](#)

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**Get Your Creative Juices Flowing!**

The Office of Undergraduate Research seeks submissions for cover designs for the 2014 Research and Arts Exposition Programs. Hundreds of these programs will be printed to showcase student presenter’s projects and more.

Design this year’s winning cover for a $100 prize!

Submissions must be an 8.5 x 11 portrait, 300 Dpi, and in PDF.

Include the event title and date:

**Undergraduate Research & Arts Exposition, June 2, 2014.**

Submit your design(s) and contact information to: Gretchen Oehlschlager at AdminUR@northwestern.edu by midnight on May 11th, 2014.

Must be a current Northwestern University undergraduate student to win.
Is a Study Abroad Experience Right for You?

Engineering students really can study abroad! The study abroad offices can help you decide which program may be right for you. The process for studying abroad differs depending on what type of experience you are interested in pursuing.

You can earn credit in engineering-specific courses as well as gain credits toward the theme or unrestricted elective portion of your degree. All it takes is finding a program that fits in your interests and needs, related to your McCormick major. Deadlines for applying for many study abroad programs happen well in advance of the start date, so if is never too early to begin planning!

To learn more about opportunities available to you and to being thinking about your own study abroad experience, visit the Northwestern Study Abroad website. You can also come to the undergraduate advising office, Tech L269, for guidance in selecting a program that is right for you!