Dear «first»:

Congratulations on your graduation! This is an exciting time of year for many reasons. We have just said goodbye to our graduating seniors who are ready to begin the next chapter of their lives and their professional careers. We are also eagerly awaiting your arrival as the incoming first-year class. I am very excited that you have chosen to pursue your intellectual and personal growth here at the McCormick School of Engineering and Applied Science of Northwestern University.

According to our records your current major choice is «majcode». If this has changed, please email us with your current field of interest, at ueoffice@northwestern.edu, and we will update our records. It is not necessary to have declared a major at this time.

Among the information included in this mailing you will find a letter from Dean Carr welcoming you to the McCormick community. Also enclosed is a document explaining our math placement process. Please read this material carefully because it includes important information regarding the online math placement test, which you will take over the summer.

If you have taken college course work during high school (this does not include Advanced Placement or International Baccalaureate courses) and plan to transfer this credit to Northwestern, refer to the enclosed instructions pertaining to the Credit Transfer Process. For each course you wish to transfer, you will need to complete an Application for Northwestern University Credit for College-Level Course Work Completed Prior to Graduation from High School. The link to this form is included in the instructions. The process for transferring credit includes the completion of the application mentioned above in addition to providing all necessary supporting documentation, depending on the type of course, including an official transcript. Return all completed material to me at the address listed on the application. If you have any questions regarding this process, please call our office (see the number below).

We will be sending you additional information about our programs throughout the summer. In the meantime, I invite you to visit our undergraduate website at http://www.mccormick.northwestern.edu/undergraduate/welcome.php. This website will serve as a central location for all the information you will need for fall, including an archive of all information sent via mail and e-mail.

I am looking forward to getting to know you. I will be available to help in any way I can throughout the summer. Please feel free to contact our undergraduate engineering office at (847) 491-7379.

Sincerely,

Joseph J. Holtgreive
Assistant Dean

Enclosures
June, 2007

Dear Member of the McCormick Class of 2011:

On behalf of the entire McCormick School, I extend to you a warm welcome to Northwestern and to our own community of scholars.

It is my sincere hope that I get to meet you, as well as each of your classmates, early in the coming academic year. My intention is for you to get comfortable in meeting the faculty, our Undergraduate Engineering staff, and myself. You will find all the Undergraduate Engineering offices located in Tech on the second floor; my office is room L268. Wildcat Welcome offers you the first chance to do this, and at that time you will also begin to meet upper-class McCormick students during the many orientation and introduction activities.

Especially noteworthy for you in the coming academic year are the two required sequence courses that comprise the *Engineering First* program. One course, "Engineering Analysis," is a four-quarter sequence, which spans into your sophomore year. "Engineering Design and Communications" is a two-quarter sequence, which you will take in the coming fall, winter, and spring quarters. *Engineering First* replaces a traditional set of courses on basic topics with these integrated sequences; one of its main goals is to build your understanding of concepts key to an engineering education. The McCormick School has invested heavily in creating *Engineering First*, and we have found that it is a fundamental and exciting improvement over traditional curricula.

I encourage you to take advantage of all that McCormick and Northwestern offer. There is an incredibly wide array of activities, such as off-campus volunteering, artistic performance, and athletics. In McCormick there is, likewise, a whole host of things in which to get involved, such as various design competitions and engineering discipline-based chapters of professional societies. We also offer opportunities to gain valuable experiences through our certificate programs: Co-op, Biotechnology, Engineering Design, and Business Enterprise.

You have heard it from us before, and I will remind you again: all of us at McCormick are dedicated to your personal growth through an engineering education. It is more clear than ever to me that what you do in earning your McCormick degree will be an exceptionally rich preparation for your career following graduation. I wish you the best as you make this life passage with us.

Sincerely yours,

Stephen H. Carr
Associate Dean
Credit Transfer Process

In order to transfer college course work completed during high school you must complete the following 6 steps. Please complete this process by **August 31, 2007**.

**Step 1**: Make sure the credit is transferable by checking that it meets the following five criteria:

(a) The course is one for which credit would normally be awarded at Northwestern (i.e., American history, but not physical education);
(b) The course was taken at a fully accredited college or university;
(c) The course was not offered toward partial fulfillment of the requirements for your high school diploma;
(d) The course was a bona fide college course offered on the campus by a college or university and enrolled primarily by high school graduates.
(e) You have earned a grade of “C” or higher in the course (no “C-“ or lower).

**Step 2**: Complete the “APPLICATION FOR NORTHWESTERN UNIVERSITY CREDIT FOR COLLEGE-LEVEL COURSE WORK COMPLETED PRIOR TO GRADUATION FROM HIGH SCHOOL.” Make sure to follow the instructions included in the Policy Statement. The form can be printed from the McCormick website. Go to [http://www.mccormick.northwestern.edu/undergraduate/welcome.php#transfer](http://www.mccormick.northwestern.edu/undergraduate/welcome.php#transfer) and select “Policy/Application for Receiving Credit for Coursework prior to High School Graduation.”

**Step 3**: Have an [official transcript](#) of the course work sent to the University Registrar, Rebecca Crown Center, 633 Clark Street, Evanston, IL 60208.

**Step 4**: If the course is a [math](#), [science](#), or [engineering](#) course, the content must be evaluated before the transfer of credit can be completed. If the course is not a technical course and meets the above-mentioned criteria, no additional documentation is required; skip to Step 6.

**Step 5**: Provide the following supplemental materials for technical courses:

(a) The [syllabus](#) for the course;
(b) The [title](#) and [author](#) of the [text](#) used for the course;
(c) A copy of the [table of contents](#) for the text(s) used, indicating which [topics](#) were covered, if not included on the course syllabus;
(d) In the case of a [chemistry](#) course, also include the [syllabus](#) for the [lab](#);
(e) In the case of a [physics](#) course, indicate the [level of math](#) used and the amount of time spent in [lab](#) per week.

**Step 6**: Mail all signed forms and supporting material to (with the exception of the official transcript which you will send to the Registrar):

Dean Joe Holtgreive  
McCormick School of Engineering  
2145 Sheridan Road, Rm.# L268  
Evanston, IL 60208-3102
Why does McCormick have its own math placement exam?
The Office of Undergraduate Engineering takes your preparation in calculus very seriously and has developed this exam as a resource for determining where you should start in the calculus sequence. Mathematics is a cornerstone in the foundation of engineering coursework. You will utilize concepts and problem solving techniques from calculus throughout your engineering studies at Northwestern. Given that fact, it is extremely important to make sure you have that solid foundation.

Remember that the main idea is not to get as far ahead in the sequence from the start as possible, but to be placed into a course that will be the best fit for you. Starting out at a level too high above your ability could very easily result in high levels of frustration as you have to work that much harder to grasp the material, which will take away time from your other courses and lead to poor grades. Starting out at a level too low may also result in poor study habits and poor grades as you will think you know the material already when you may not know it completely in the context the instructor is teaching.

What is covered on the exam?
The exam consists of a total of 53 multiple-choice questions divided into three areas: Algebra & Trigonometry - 25 questions, Differential Calculus - 15 questions, Integral Calculus - 13 questions. You will have 70 minutes to complete each section. No calculators are allowed. Any student with a documented disability needing accommodations should first contact the Office of Services for Students with Disabilities – see their web site for contact info: http://www.northwestern.edu/disability/.

The Algebra & Trigonometry section is not used in the placement recommendation process, but rather to help students identify if they need to brush up on those areas. Often students who have difficulty with calculus are actually having difficulty with algebra and trigonometry more than calculus itself.

Do I need to take this exam?
Most incoming first-year McCormick students (even those with AP or IB credit) should take this exam. The exam is non-binding so it will not hurt anyone to take it. Find the situation below that best fits you and follow that procedure.

#1) If you have not taken calculus before:
Simply complete the first exam that covers algebra and trigonometry.

#2) If you have taken one or more courses in calculus (this includes students who have taken AP/IB Calculus)
Complete all three sections of the placement exam. If there are questions on the exam with material you have never seen, just leave those questions blank.

#3) If you have taken advanced calculus – beyond that of AP/IB or beyond basic differential and integral calculus
E-mail uoffice@northwestern.edu with further details of your situation. Someone will contact you regarding your specific situation. You will ultimately submit material from these courses for evaluation (either for credit or for placement purposes).

When is the exam and how do I take it?
The exam is on-line only and will be available Monday, July 10 and remain available through 11:55 p.m. on Tuesday, September 4. (All times are U.S. Central Time.) There is no administration of the exam during Wildcat Welcome, so students need to complete it prior to their arrival on campus.

The website http://www.mccormick.northwestern.edu/undergraduate/math_placement.php has further instructions on how to access the exam. You should visit the site before you are ready to take the exam to make sure you can access the exam site properly. Please do not put this off until the very last minute!

See Other Side
**How should I prepare for the exam?**

To get the most out of this exam - that being an accurate assessment of your calculus skills and abilities - you will need to and want to put some time into preparing for the exam. All test takers should take some time reviewing basic algebra and trigonometry concepts. For those that have taken calculus before, you will also want to review the basic concepts of differential and integral calculus - including, but not limited to, topics such as limits, the chain rule, the product rule, substitution, integration by parts, and trigonometric derivatives and integrals. You should not attempt to learn any new material for this exam, but rather refresh yourself with what you already know. This will eliminate the feeling of “if only I had reviewed I would have scored higher on the exam.” By ‘some time’ I am suggesting just a few hours of review - not weeks of study.

**When will I get my recommendation and what will it say?**

All students will receive their placement recommendations on Wednesday, September 19. The recommendation will include placement into a specific course based upon your performance on the exam.

Possible Placement Recommendations -
For incoming students, there are four possible starting points in the calculus sequence. (Students with advanced Math backgrounds beyond the first two courses in Calculus - such as Vector and Multivariable Calculus - will be advised on a case-by-case basis.) These four options are:

- MATH 220 Differential Calculus of One Variable Functions
- MATH 224 Integral Calculus of One Variable Functions
- MATH 230 Differential Calculus of Multivariable Functions
- ES_APPM 252-1 Honors Calculus for Engineers (offered through the Applied Math department in the School of Engineering - covers the same material as MATH 230 but in greater depth).

Implications of the Placement Exam Recommendation -
The recommendation from this exam is non-binding. It is, however, a very strong recommendation based on how you performed on the exam. This exam will also give you feedback on what topics you may want to review on your own prior to the start of classes, particularly algebra and trigonometry.

Direct any questions to the Undergraduate Engineering Office
ueoffice@northwestern.edu
847-491-7379