Mathematics

MATH 347  **Fundamental Mathematics**  credit: 3 hours.

Fundamental ideas used in many areas of mathematics. Topics will include: techniques of proof, mathematical induction, binomial coefficients, rational and irrational numbers, the least upper bound axiom for real numbers, and a rigorous treatment of convergence of sequences and series. This will be supplemented by the instructor from topics available in the various texts. Students will regularly write proofs emphasizing precise reasoning and clear exposition. Credit is not given for both MATH 347 and MATH 348. Prerequisite: MATH 231.

This course satisfies the General Education Criteria for a:
Quantitative Reasoning II

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>33003</td>
<td>Lecture-Discussion</td>
<td>C1</td>
<td>09:00 AM - 09:50 AM</td>
<td>M</td>
<td>241 - Altgeld Hall</td>
<td>Weichsel, P</td>
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<tr>
<td></td>
<td>Lecture-Discussion</td>
<td>C1</td>
<td>10:00 AM - 10:50 AM</td>
<td>MTWRF</td>
<td>241 - Altgeld Hall</td>
<td>Weichsel, P</td>
</tr>
</tbody>
</table>

Quant Reasoning II course.  
Meets 11-Jun-12 - 02-Aug-12.

| 37091 | Online | OCE  | ARRANGED - | - | Francis, G Murphy, A |

Quant Reasoning II course.  
Instructor Approval Required  
Restricted to NDEG:Grad Nondegree-CE-UIUC or NDEG:Undergrad Nondeg-CE-UIUC.  
Meets 14-May-12 - 02-Aug-12.  
Online & Continuing Education (OCE) restrictions and assessments apply. see http://www.oce.illinois.edu. Enrollment in this course section is open only to undergraduate and graduate nondegree students. Students wishing to enroll need the instructor's approval based on a review of their preparation. Please e-mail Prof. George Francis at gfrancis@uiuc.edu to request approval.  
Graduate - Urbana-Champaign OCE Tuition $362.00 per Bill Hour, Undergrad - Urbana-Champaign OCE Tuition $325.00 per Bill Hour, and OCE Fees $50.00 per Bill Hour.

| 37097 | Online | ONL  | ARRANGED - | - | Francis, G Murphy, A |

Quant Reasoning II course.  
Instructor Approval Required  
Meets 14-May-12 - 02-Aug-12.  
Prerequisite: MATH 231. Enrollment in this course section is open only to undergraduate and graduate nondegree students. Students wishing to enroll need the instructor's approval based on a review of their preparation. Please e-mail Prof. George Francis at gfrancis@uiuc.edu to request approval.