### Mathematics

**MATH 446  Applied Complex Variables  credit: 3 OR 4 hours.**

For students who desire a working knowledge of complex variables; covers the standard topics and gives an introduction to integration by residues, the argument principle, conformal maps, and potential fields. Students desiring a systematic development of the foundations of the subject should take MATH 448. 3 or 4 undergraduate hours. 3 or 4 graduate hours. Credit is not given for both MATH 446 and MATH 448. 4 hours of credit requires approval of the instructor and department with completion of additional work of substance. Prerequisite: MATH 241.

<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>59648</td>
<td>Lecture-Discussion</td>
<td>C13</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>245 - Altgeld Hall</td>
<td>D'Angelo, J</td>
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<tr>
<td>59650</td>
<td>Lecture-Discussion</td>
<td>C14</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>245 - Altgeld Hall</td>
<td>D'Angelo, J</td>
</tr>
</tbody>
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Credit Hours: 3 hours

**48245**  
Online  
EGR  
ARRANGED -  
-  
Peressini, A

Restricted to MS: Civil Engr - Online - UIUC, MCS:Computer Sci Online -UIUC, MS:Mechanical Engineering -UIUC, MS: Aerospace Engr-Online-UIUC, NDEG:Grad Nondegree-CE-UIUC, MCS: Computer Sci Online-UIUC, or MENG:Mech Engineering Onl-UIUC. Restricted to online grad non-degree, online MSAE, online MCS, online MSME and online MSCEE students. Center for Innovation in Teaching & Learning (CITL) restrictions and assessments apply, see https://online.illinois.edu. For more details on this course section, please see http://engineering.illinois.edu/online/courses/.  
OCE Tuition $1034.00 per Bill Hour, and OCE Fees $50.00 per Bill Hour.

| 30355 | Lecture-Discussion | M13     | 09:30 AM - 10:50 AM | TR   | 445 - Altgeld Hall | Ahlgren, S Haboush, W |

Credit Hours: 3 hours

| 39130 | Lecture-Discussion | M14     | 09:30 AM - 10:50 AM | TR   | 445 - Altgeld Hall | Ahlgren, S Haboush, W |

Credit Hours: 4 hours

Instructor Approval Required  
Restricted to Graduate - Urbana-Champaign.  
Instructor approval forms available in 313 Altgeld Hall beginning on the first day of Fall semester.