**M.S. in Chemical Engineering - Non-Thesis Option (Plan B)**

**General Requirements**
- 30 credits total
- ECHM 575 Research or Prof Paper/Project is required
- 21 credits or more required for degree must be at 5xx level
- 3xx level courses are not allowed
- 4xx level courses may be used
- Courses with grades below C- cannot be used to satisfy graduation requirements
- Three credits (min.) registration required during term of graduation (1 credit with in absentia graduation request on file)

**Course Requirements**
The following courses are required of each MS student:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECHM 594</td>
<td>Seminar (can be taken twice)</td>
<td>1</td>
</tr>
<tr>
<td>ECHM 503</td>
<td>Thermodynamics (F)</td>
<td>3</td>
</tr>
<tr>
<td>ECHM 533</td>
<td>Transport Phenomena (Sp)</td>
<td>3</td>
</tr>
<tr>
<td>ECHM 575</td>
<td>Research or Prof Paper/Project</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus, a course in each of the following areas:

**Reaction Engineering**

- ECHM 510 Reaction Engineering/Modeling (Sp) 3
- or EBIO 566 Fundamentals of Biofilm Engr

**Advanced Mathematics**

- EGEN 505 Advanced Engineering Analysis 3
- or EGEN 506 Numerical Sol to Engr Problems

Each student’s graduate advisor and committee are to work with the student to prepare a Program of Study listing the courses the student is required to take.

**Examinations**
For Non-Thesis Option (Plan B) Students:

- Presentation of professional paper and oral defense