Student Name __________________ TTU ID __________________ Date ______

Email Address __________________ ADVISING FOR ________ (e.g., fall 2013)

Students: For courses taken at TTU, put the grade received next to the course.
For transfer credit, use T and the grade received (ex. TB).
For courses that you are currently enrolled in and expect to pass, use an R next to that course.

Advisors: Indicate the courses to be taken in the following semester by circling the courses.

FIRST YEAR

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1451, Calc. I</td>
<td>MATH 1452, Calc. II</td>
</tr>
<tr>
<td>CHEM 1307 &amp; 1107, Prin. of Chem. I</td>
<td>CHEM 1308 &amp; 1108, Prin. of Chem. II</td>
</tr>
<tr>
<td>CH E 1121, Chem. Eng. Seminar</td>
<td>CHE 1305</td>
</tr>
<tr>
<td>PHYS 1408 Prin. of Phys.</td>
<td></td>
</tr>
</tbody>
</table>

SECOND YEAR

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3305 &amp; 3105, Org. Chem. I</td>
<td>CH E 3315, Fluid Mechanics</td>
</tr>
<tr>
<td>PHYS 2401, Prin. of Phys. II</td>
<td></td>
</tr>
</tbody>
</table>

THIRD YEAR

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH E 2306, Expos. Tech. Info (oral Comm.)</td>
<td>CHEM 3308 &amp; 3108, Phys. Chem. II</td>
</tr>
<tr>
<td>CH E 3326, Heat Transfer</td>
<td>CH E 3232, Transport Lab.</td>
</tr>
</tbody>
</table>

FOURTH YEAR

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH E 4353, Process Control</td>
<td>CH E 4356 Process Safety</td>
</tr>
<tr>
<td>CH E 4122 CHE Review</td>
<td>Chemical Engineering Elective</td>
</tr>
<tr>
<td>Chemical Engineering Elective</td>
<td></td>
</tr>
</tbody>
</table>

Additional Requirements - Indicate the Course (ex. ART 1309) as well as the grade.
American History (6 hrs) ____________ ____________ Multicultural (3 hrs) ____________
Political Science (6 hrs) ____________ ____________ Lang/Phil/Culture (3 hrs) ____________
Creative Arts (3 hrs) ____________
Chemistry Electives (8 hrs) ____________ ____________ ____________ ____________
International Experience Completed ______ or Exempt ______
Foreign language – 2 yrs HS _______ or freshman-level courses ____________ ____________

Additional Comments:

Advisor Signature __________________
Student Signature __________________ Date ______

Return Form to Kristina Thompson (CHE 211) For Hold Removal
Polymer and Materials Minor

Minimum of six courses.

Two courses are required:

- CH E 4344 Polym./Mat. Lab.
- CH E 3330 Materials Sci.

Plus four courses chosen from the following list with two in another department:

- CHEM 3306 Organic Chem. II
- CHEM 4310 Polymer Chem.
- CH E 4340 Polymer Proc.
- CH E 4341 Polymerization Eng.
- CH E 4342 Polymer Physics/Eng.
- CH E 4346 Polymer Viscoelasticity
- E E 4381 VLSI Processing

Math Minor

Minimum of Six Courses.

Four courses are required:

- MATH 1451 Calc. I
- MATH 1452 Calc. II
- MATH 2450 Calc. III

One elective is required for the BS Ch E degree:

- MATH 3350 or 3354 Diff. Eqns. I

Plus six hours of approved courses (the following are recommended, others may be taken - see the Math Dept. for all options); for graduate school in Ch E, MATH 3351 or 4354 is recommended:

- MATH 2360 Linear Algebra
- MATH 3351 Higher Math for Eng. II
- MATH 4354 Diff. Eqns. II

Bioengineering Minor

(Catalog 2013-2014 and later)

Minimum of six courses (eight for premed students).

Three courses are required:

- BIOL 1403 Biology I (Fall)
- CHEM 1308/1108 Prin. Chem II (Fall or Spr)

Plus one of the following:

- BIOL 1404 Biology II (Spring)
- CHEM 3306/3106 Organic Chem. II & Lab**
- MBIO 3400 Microbiology

Plus one of the following core bioengineering courses:

- CH E 4363 Biochemical Engineering**
- ECE 5356 Bioinstrumentation/Biosensors

Plus two of the following (note must not include core course):

- CE 3309 Environmental Engineering
- CH E 4363 Biochemical Engineering(if not used as core)
- CH E 4364 Ch E Appl. in Biological Systems**
- CH E 4365 Biotransport**
- CH E 4366 Biomicrofluidics**
- CH E 4385 Bioprocess Control**
- CS 3368 Artificial Intelligence
- CS 4379 Concurrent and Parallel Programming
- CS 5393 Bioinformatics
- ECE 4367 Image Processing
- ECE 5351 Biomedical Signal Processing
- ECE 5355 Genomic Signal Processing and Control
- ECE 5356 Bioinstrumentation/Biosensors (if not used as core)
- ENV E 4385 Microbial Apps. in Envir. Engineering
- ENV E 4399 Bio. Municipal Wastewater Treatment
- IE 3361 Work Analysis and Design
- IE 4361 Engineering Design for People
- IE 4362 Industrial Ergonomics
- IE 4363 Work and Product Safety Engineering
- MBIO 3401 Principles of Microbiology (Fall or Spring):
  OR CHEM 3310 Molecular Biochemistry;
  OR MBIO 3341 Principles of Microbiology

** Denotes courses preferred for CH E Majors

On catalog before 2013-2014, a statistics course is required:

MATH 3342 or IE 3341 or CHE 4372