Bachelor of Engineering – Student entering 2017 Fall

☐ Study Plan  ☐ Application for Candidacy (check one)

Name____________________________________ ID:____________________ Class:__________ Box S- ______ Email:_____________________!

Major Concentration Field: Industrial and Systems Engineering  Secondary Concentration Field:____________________________________!

Please print or type. The primary purpose of this form is to lay out the courses required to complete your degree program and when you expect to take each of them. You may then use it to track your own progress to the degree. You should revise it as needed. Please indicate the term when you expect to take each course (e.g., 2019F, 2020S, etc.). Roman numerals indicate the standard curriculum time schedule. If a choice of course is given for the requirement, circle the appropriate course number. For electives, fill in the course number. Any course taken elsewhere should be marked TR. An additional study plan will be required if any of you wish to receive a minor or a second degree.

<table>
<thead>
<tr>
<th>Term</th>
<th>Course</th>
<th>Credits</th>
<th>Grade</th>
<th>Term</th>
<th>Course</th>
<th>Credits</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERM I</td>
<td>CH 115 General Chemistry I</td>
<td>3.0</td>
<td>_____</td>
<td>E 126 Mechanics of Solids</td>
<td>4.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>CH 117 General Chemistry Laboratory</td>
<td>1.0</td>
<td>_____</td>
<td>E 231 Engineering Design III</td>
<td>2.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>E 101 Engineering Experience</td>
<td>1.0</td>
<td>_____</td>
<td>E 245 Circuits and Systems</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>E 115 Introduction to Programming</td>
<td>2.0</td>
<td>_____</td>
<td>MA 221 Differential Equations</td>
<td>4.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>E 120 Engineering Graphics</td>
<td>1.0</td>
<td>_____</td>
<td>PEP 112 Electricity and Magnetism</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>E 121 Engineering Design I</td>
<td>2.0</td>
<td>_____</td>
<td>Humanities1</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>MA 121 Differential Calculus</td>
<td>2.0</td>
<td>_____</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>MA 122 Integral Calculus</td>
<td>2.0</td>
<td>_____</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>CAL 103 Writing &amp; Communication Colloquium</td>
<td>3.0</td>
<td>_____</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERM II</td>
<td>Science Elective2</td>
<td>3.0</td>
<td>_____</td>
<td>ISE 225 Data Infrastructures</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>Science Elective Laboratory2</td>
<td>0/1.0</td>
<td>_____</td>
<td>ISE 224 Informatics &amp; Software Development</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>E 122 Engineering Design II</td>
<td>2.0</td>
<td>_____</td>
<td>E 232 Engineering Design IV</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>MA 123 Series, Vectors, Functions and Surfaces</td>
<td>2.0</td>
<td>_____</td>
<td>E 234 Thermodynamics</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>MA 124 Calculus of Two Variables</td>
<td>2.0</td>
<td>_____</td>
<td>MA 227 Multivariable Calculus</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>MGT 103 Intro to Entrepreneurial Thinking</td>
<td>2.0</td>
<td>_____</td>
<td>Science Elective II2</td>
<td>3.0</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>PEP 111 Mechanics</td>
<td>3.0</td>
<td>_____</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>CAL 105 Knowledge, Nature, Culture</td>
<td>3.0</td>
<td>_____</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student Signature: ___________________________________________ Date:__________

Faculty Advisor Signature: ___________________________________________ Date:__________

UG Records Auditor: ___________________________________________ Date:__________

☑ Original  ☐ Revision  ☐ 2nd Degree

Revised September 2017

Page 1 of 2
Major Concentration: Industrial and Systems Engineering

Secondary Concentration Field: _________________________________

Term | Course | Credits | Grade
--- | --- | --- | ---
TERM V | ISE 350 or CE 342 | 3.0/4.0 | ___
| SY5 01 Probability and Statistics for Systems Eng. | 3.0 | ___
| EM 365 Statistics for Engineering Managers | 4.0 | ___
| E 321 Engineering Design V | 2.0 | ___
| E 344 Materials Processing | 3.0 | ___
| Humanities | 3.0 | ___

TERM VI | ISE 322 Engineering Design VI | 2.0 | ___
| ISE 345 Modeling and Simulation | 3.0 | ___
| SY5 81 Intro to Systems Engineering | 3.0 | ___
| ISE 357 Elements of Operations Research I | 3.0 | ___
| E 355 Engineering Economics | 4.0 | ___
| GE | 3.0 | ___

Term | Course | Credits | Grade
--- | --- | --- | ---
TERM VII | ISE 423 Engineering Design VII | 3.0 | ___
| ISE 457 Elements of Operations Research II | 3.0 | ___
| Technical Elective | 3.0 | ___
| IDE 404 Senior Innovation | 1.0 | ___
| IDE 401 Senior Innovation II | 1.0 | ___
| GE | 3.0 | ___
| BT 244 Microeconomics | 3.0 | ___

TERM VIII | ISE 424 Senior Design VIII | 3.0 | ___
| ISE 490 Data-mining and Applied Maching Learning | 3.0 | ___
| Humanities | 3.0 | ___
| IDE 451 Analysis of Networks and Strategies | 3.0 | ___
| GE | 3.0 | ___
| IDE 402 Senior Innovation III | 1.0 | ___

Notes:
1. Humanities Requirement- Four additional humanities classes. One of those must be BT 244, which count as upper level humanities courses (300/400). The remaining courses one must be at the 100/200 level, and they must cover two different disciplines within CAL.
2. Engineering Management students can choose from a list of science electives courses. For the complete list of courses, please visit pages 78-79 of the Academic Catalog for your entering year.
3. General Education Electives – chosen by the student – can be any approved 3 or 4 credit course used towards a minor, major concentration, research, independent study, language courses, or a course taken during an international experience.
4. IDE 400 can be taken concurrently with IDE 401 in Term VII as determined by the engineering program.
5. These courses are the Core major courses for the Industrial and Systems Engineering program.
6. Any 500 level EM, ES, ISE, SES, SSW, or SYS course can count towards the Technical Elective requirements.
7. PE Requirement: All students must complete a minimum of four semesters of Physical Education (P.E.) in non-repeating courses. No credit or grades are awarded for P.E. classes. Participation in varsity and club sports may be used to satisfy all four of the Physical Education requirements.

Student Signature: _________________________________ Date: __________
Faculty Advisor Signature: _________________________________ Date: __________
UG Records Auditor: _________________________________ Date: __________