All students must present evidence of previous equivalent coursework or complete the following:
Other required courses may be designated as part of the advising process.

### Taken Needs

**Core Courses:**

1. [ ] [ ] ENG EK 127 Introduction to Engineering Computation
2. [ ] [ ] CAS MA 124 Calculus II (MA 123)
3. [ ] [ ] CAS MA 225 Multivariate Calculus (MA 124)
4. [ ] [ ] CAS MA 226 Differential Equations (MA 225)
5. [ ] [ ] ENG EK 102 Introduction to Linear Algebra for Engineers (2 cr.)
or
   [ ] [ ] CAS MA 142 Linear Algebra (2 cr.) (Co-req. MA 124)
6. [ ] [ ] CAS MA 193 Discrete Mathematics for Engineering (2 cr.)

7. Select one (1) course from the following list:
   [ ] [ ] ENG EC 381 Probability Theory in Electrical and Computer Engineering (MA 225)
   [ ] [ ] CAS MA 381 Elementary Probability (MA 225 or MA 230)
   [ ] [ ] ENG ME 308 Probability and Quality Engineering (MA 225)
   [ ] [ ] ENG EK 500 Probability with Statistical Applications (MA 226)*

8. Select one (1) course from the following list:
   [ ] [ ] ENG EC 401 Signals and Systems (MA 226, EK 307, EC 401)
   [ ] [ ] ENG BE 401 Signals and Systems in Biomedical Engineering (BE 200, MA 226, EK 307)

9. Select one (1) course from the following list:
   [ ] [ ] ENG ME 411 Operations Research (ME 308 or MA 381), (EK 102 or MA 142)
   [ ] [ ] ENG EC 330 Applied Algorithms for Engineers (EC 327 and MA 193)
   [ ] [ ] CAS CS 330 Introduction to Analysis of Algorithms (CS 112, CS 113; coreq. MA 242 or CS 232; MA 294 or CS 235; or consent of instructor)

10-12. Select three (3) courses from the following list:
   [ ] [ ] ENG BE 402 Control Systems in Biomedical Engineering (BE 401) or
   [ ] [ ] ENG EC 402 Control Systems (MA 226, EK 307) or
   [ ] [ ] ENG ME 404 Dynamics and Control of Mechanical Systems (ME 302 or consent of instructor)
   [ ] [ ] ENG EC 415 Communication Systems (EC 401)
   [ ] [ ] ENG EC 441 Introduction to Computer Networking (EC 381, EC 401)
   [ ] [ ] ENG ME 420 Supply Chain Engineering (ME 345 or consent of instructor)
   [ ] [ ] CAS CS 455 Computer Networks (CS 330, CAS CS350 or consent of instructor)

Note: Only one of ENG EC 402, ENG ME 404, or ENG BE 402 is acceptable. Some choices of courses listed above may require additional prerequisite coursework.

*Courses used to satisfy LEAP Phase I requirements may not be used to satisfy MS degree requirements.

Minimum # of courses needed for Phase I: ____________ Initials: ____________ Date: ____________

Comments:

---

**Phase I Planning Sheet:**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Year</th>
<th>Semester</th>
<th>Year</th>
<th>Semester</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester</th>
<th>Year</th>
<th>Semester</th>
<th>Year</th>
<th>Semester</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

3/16/09

Systems Engineering  
Student:_____________________
ID#:__________________