# LEAP Program Plan    Systems Engineering

**Student:**_____    **BU-ID#** _____

Course pre-requisites are listed in parentheses. Other required courses may be designated as part of the advising process. All students must present evidence of previous equivalent coursework or complete the following:

| | Taken | Needs | # | Title |
|---|---|---|---|---|
| | **Core Courses** | | | |
| 1 | | | ENG EK 125 | Introduction to Programming for Engineers |
| 2 | | | CAS MA 124 | Calculus II (MA 123) |
| 3 | | | CAS MA 225 | Multivariate Calculus (MA124) |
| 4 | | | CAS MA 226 | Differential Equations (MA225) |
| 5 | | | ENG EK 103 | Computational Linear Algebra (3cr) |
| 6 | | | CAS MA 193 | Discrete Mathematics for Engineering (2cr) |
| 7 | **Select one course from the following list:** | | | |
| | | | ENG EK 381 | Probability, Statistics, and Data Science for Engineers (EK103 & MA225) |
| | | | CAS MA 381 | Elementary Probability (MA 225 or MA 230) |
| | | | ENG EK 500 | Probability with Statistical Applications (MA 226) |
| 8 | **Select one course from the following list:** | | | |
| | | | ENG EC 401 | Signals and Systems (MA 226, EK 307) |
| | | | ENG BE 403 | Biomedical Signals and Controls (BE 381, MA 226, EK 307, ME 381) |
| 9 | **Select one course from the following list:** | | | |
| | | | ENG ME 411 | Operations Research (ME 366 or MA 381), (EK 103) |
| | | | ENG EC 330 | Applied Algorithms for Engineers (EC 327 and MA 193-recommended) |
| | | | CAS CS 330 | Introduction to Analysis of Algorithms (CS112, CS131, and CS132; or CS235 or CS237) |
| 10 | **Select three 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, EC 401) **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 (EK 381, EC 401) |
| | | | ENG ME 420 | Supply Chain Engineering (ME 345 or consent of instructor) |

Minimum # of courses needed for LEAP foundation: _____
Comments:

Advisor Initials:_____ Date: _____

**LEAP Program Plan          Systems Engineering**

**Student:_____          BU-ID# _____**

**Foundation Planning Sheet**
**Enter the course numbers for each LEAP foundation Semester/Year.**

| Semester          Year | Semester          Year | Semester          Year |
|---|---|---|
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| Semester          Year | Semester          Year | Semester          Year |
|---|---|---|
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