

**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
<b>Core Courses</b>				
1			ENG EK 121	Introduction to Programming & Data Science
2			ENG EK 122	Programming for Engineers
3			CAS MA 124	Calculus II (MA 123)
4			CAS MA 225	Multivariate Calculus (MA124)
5			CAS MA 226	Differential Equations (MA225)
6			ENG EK 103	Computational Linear Algebra (3cr)
7			CAS MA 193	Discrete Mathematics for Engineering (2cr)
8	<b>Select one course from the following list:</b>			
			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)
9	<b>Select one course from the following list:</b>			
			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)
10	<b>Select one course from the following list:</b>			
			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)
11	<b>Select three courses from the following list:</b>			
			ENG BE 402	Control Systems in Biomedical Engineering (BE 401) <b>OR</b>
			ENG EC 402	Control Systems (MA 226, EK 307, EC 401) <b>OR</b>
			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: \_\_\_\_\_

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**BU-ID#** \_\_\_\_\_

**Foundation Planning Sheet**

Enter the course numbers for each LEAP foundation Semester/Year.

Semester	Year	Semester	Year	Semester	Year
Semester	Year	Semester	Year	Semester	Year