Program Planning Guide for LEAP – RAS
Fall '26 – Spring '27

This sheet is intended to guide students in the Late Entry Accelerated Program (LEAP) with an intended master's in **robotics and autonomous systems** through their foundational phase courses. A final decision on exactly which courses a student is required to take will be made during a conversation with their faculty advisor. Other required courses may be designated as a part of the advising process.

*LEAP students are required to earn a B or higher in a Calculus I course prior to **matriculating** into LEAP. Students who have not taken Calculus I prior to matriculating will not be able to start the LEAP foundational phase curriculum, which begins immediately with Calculus II and other courses building on Calculus I concepts. Calculus I courses must have been completed within 5 years of a student's matriculation into LEAP.*

As stated in the academic bulletin, LEAP students must abide by the following guidelines to successfully move into their master's program:

- After matriculating into LEAP, a student must take at least two-thirds of their remaining foundational phase courses at BU. A student's faculty advisor will determine how many courses the student will take during their foundational phase after discussing the student's academic and professional background.
    - **This calculation will not include courses taken prior to starting LEAP.** For example, if a student needs 12 courses to complete their foundational phase and has taken 3 of those courses prior to matriculating into LEAP, they will have 9 required courses in their foundational phase after starting LEAP. Of those 9 required courses, they will be required to take 6 at BU.
- A student cannot take courses outside of Boston University during BU's academic year (i.e., any time between the Fall semester's first day of classes and Spring semester's final exam day).
- If a student is interested in taking foundational phase courses outside of Boston University during a summer semester, they will need to first obtain approval from their faculty advisor.
- Audited courses will not count towards a student's foundational phase. To view the full audit policy, please visit our page here.

**This program planning sheet is designed for LEAP students starting in Fall 2026 & Spring 2027. Courses listed are subject to change for future semesters.*

Taken	Need	College	Course	Course Title	Pre-requisites	Co-requisites	Units
Core Courses							
		CAS	MA 124	Calculus II	Calculus I (MA 123)		4
		CAS	MA 225	Multivariate Calculus	Calculus II (MA 124)		4
		CAS	MA 226	Differential Equations	Multivariate Calculus (MA 225 **or** MA 230)		4
		CAS	PY 211	General Physics I (calculus-based)	Calculus I (MA 123)	Calculus II (MA 124)	4
		ENG	EK 103	Computational Linear Algebra	Intro to Programming for Engineers (EK 125)		3
		ENG	EK 301	Engineering Mechanics I	General Physics I (PY 211)	Multivariate Calculus (MA 225) and Intro to Programming for Engineers (EK 125)	4
		ENG	ME 302	Engineering Mechanics II	Engineering Mechanics I (EK 301) and Differential Equations (MA 226)		4
		ENG	ME 357	Introduction to CAD and Machine Components			2
		ENG	EK 381	Probability, Statistics, & Data Science for Engineers	Multivariate Calculus (MA 225) , Computational Linear Algebra (EK 103)		4

Controls - choose one of the following courses							
		ENG	ME 404	Dynamics and Control of Mechanical Systems	Engineering Mechanics II (EK 302)		4
		ENG	EC 402	Control Systems	Differential Equations (MA 226) and Electric Circuits (EK 307) and Signals & Systems (EC 401)		4
		ENG	BE 404	Modern Control in Biomedical Engineering	Biomedical Signals & Controls (BE 403)		4
Electrical or Mechanical Design – choose one of the following courses							
		ENG	EK 307	Electric Circuits		General Physics II (PY 212)*	4
		ENG	EC 410	Intro to Electronics **for students familiar with EK307 materials*	Electric Circuits (EK 307)		4
		ENG	ME 360	Electromechanical Design **for students interested in CAD based design*	Introduction to CAD and Machine Components (ME 357)	Manufacturing Processes (ME 358)	4
Programming – choose one of the following courses							
		ENG	EK 125	Introduction to Programming for Engineers **for students with no programming experience*		Calculus I (MA 123)	4
		ENG	EC 327	Introduction to Software Engineering **for students with introductory programming experience*	Introduction to Programming for Engineers (EK 125)		4
		ENG	EC 413	Computer Organization **for students with significant programming experience*	Introduction to Logic Design (EC 311)		4

*It is strongly recommended that students either enroll in Physics II or have a strong physics background before taking EK 307. Please consult with your academic advisor.