The Master of Science in Robotics and Autonomous Systems: Non-Thesis Program Planning Sheet

Student Name: _____ BU ID#_____

Email Address: _____ Advisor Name: _____

Expected Graduation Date: _____

1) Core Course Requirement – 4 credits

Course #	Course Name	Credits	Semester/Year	Grade
EK 505 A1	Introduction to Robotics and Autonomous Systems	4	Fall _____	____

2) Robotics Core Requirement – 16 credits

Area	Course #	Course Name	Credits	Semester/Year	Grade
C	_____	_____	_____	_____	_____
D	_____	_____	_____	_____	_____
P	_____	_____	_____	_____	_____
ML	_____	_____	_____	_____	_____

3) Technical Elective Requirement – 12 credits

Course #	Course Name	Credits	Semester/Year	Grade
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

4) Practicum

Placement	Semester/Year
_____	_____

Approved By:

_____ _____

Advisor Signature Date Student Signature Date

The Master of Science in Robotics & Autonomous Systems
Curricular Requirements

The program requires 32 credit hours at the 500-level or above. At least 24 credits must be taken at Boston University. To graduate, a cumulative grade point average of at least 3.0 (B) must be attained.

If necessary, students can take more than 32 credits and drop the lowest grade(s). Grades of C– or lower are not acceptable for master's degrees under any circumstance. Successful completion of a 3-credit course in either the College of Arts and Sciences or the Questrom School of Business does not obviate the need to complete 32 credits. Students are permitted to take a single course multiple times to achieve the GPA requirement, but will only receive 4 credits if used against the degree requirements.

1. **Core Course Requirement (4 credits)**
   All students are required to take and pass ENG EK505 A1 (*Introduction to Robotics and Autonomous Systems*) in order to receive their Master's degree. This course covers the fundamentals that will be built upon in the robotics core requirements.

2. **Robotics Core Requirement (16 credits)**
   Students much choose a course from the list below in each of the four areas of Control (C), Perception (P), Design (D), and Machine Learning (ML). Each selected course can only satisfy one core area. Note that not every course is offered every year.

Course Number	Course Name	Area
ENG EC/ME/SE 734	Formal Methods in Robotics	C
ENG ME 570	Robot Motion Planning	C, P
ENG ME/SE 740	Vision, Robotics, and Planning	C, P
ENG EC 545	Cyberphysical Systems	P
CAS CS 585	Image and Video Computing	P
ENG ME 571	Medical Robotics	D
ENG ME 568	Soft Robotics	D
ENG EC 503[1]	Learning from Data	ML
CAS CS 542	Machine Learning	ML
ENG EC 523	Deep Learning	ML

[1]If interested in the cybersecurity specialization, you must take EC 503 for ML requirement

3. **Technical Elective Requirement (12 credits)**
   Each student must complete three graduate-level courses in engineering, math, or the physical sciences to fulfill this Requirement. These courses may be taken in any department or division of the College of Engineering or in the College of Arts and Sciences and includes those on the list above of robotics core (if not used to satisfy a core requirement). The advisor must approve the three courses used to fulfill this requirement.

4. **Practicum Requirement**
   The practicum must be satisfied (usually during the summer term) through one of the following mechanisms:
   1. An industrial internship with a placement through the MS in Robotics and Autonomous Systems program
   2. An independently arranged industrial internship with prior approval of the program
   3. A research internship in the lab of a participating faculty member

   Regardless of the mechanism, the internship must consist of at least 360 hours of effort.