Sample Academic Pathways for Course 16 Students Entering the Major in the Fall Term of the Junior Year

Freshmen intending to major in Course 16 are urged to carefully plan their spring course load to ensure they complete the prerequisites for 16.001-002.

The following roadmaps show the paths typically taken by students who enter Course 16 in the Fall term of the junior year and later enroll in the 16.62x-16.82 or 16.83 capstone sequence. Students who wish to complete an option in aerospace information technology will follow the same pathways but they must take at least three (36 units) of the four (48 units) required professional subjects in subjects other than 16.100, 16.20, 16.50, or 16.90.

Students must discuss their individual course plan with their academic advisor and consult the current *MIT Course Catalogue* (http://student.mit.edu/catalog/index.cgi) for up-to-date information on degree requirements, course prerequisites, and the terms in which courses are offered. Also check *the Course 16 Planned Calendar for Experimental and Capstone Subjects*.

Program 16 – Aerospace Engineering

Subject & Units	Institute Requirement	Units Beyond GIRS
1. **Freshman Year**		
Fall Term		
3.091 Intro to Solid-State Chemistry (12)	CHEM	
8.01 Physics I (12)	PHYS	
18.01 Calculus I (12)	CALC	
HASS (12)	HASS	
Term Units = 48		
Spring Term		
6.0001 Intro to Computer Sc Prog in Python		6
6.0002 Intro to Compt'l Thinking & Data Sc		6
8.02 Physics II (12)	PHYS	
18.02 Calculus II (12)	CALC	
HASS (12), CI-H	HASS	
Term Units = 48		
2. **Sophomore Year**		
Fall Term		
6.041A Intro to Probability I (6)		6
6.041B Intro to Probability II (6)		6
7.012 Intro to Biology (12)	BIO	
18.03 Differential Equations (12),	REST	
Elective (6)		6
HASS-A (12)	HASS-D	

Term Units = 54

Independent Activities Period		
A six-unit elective, i.e. UROP-for-credit		6
Spring Term		
16.35 Real-Time Sys & Software (12)		12
Elective (12)		12
HASS- (12)	HASS-S	
HASS (12), CI-H	HASS	
Term Units = 48		

3**. Junior Year**

Fall Term		
16.001-Unified Engineering I (12)	REST	
16.002-Unified Engineering II (12)		12
16.400 Human Sys Engin (12)		12
HASS-H (12)	HASS-D	
Term Units = 48		
Independent Activities Period		
A six-unit elective, i.e. a UROP-for-credit		6
Spring Term		
16.003-Unified Engineering III (12)		12
16.004 Unified Engineering IV (12)		12
Elective (12)		12
HASS-S (12)	HASS-D	
Term Units = 48		

4. Senior Year

Fall Term		
16.06-Principles of Automatic Control (12)		12
16.07-Dynamics (12)		12
16.100 Aerodynamics (12)		12
16.621-Experimental Projects I (6)		6
	HASS	
Term Units = 42		
Independent Activities Period		
A six-unit elective, i.e. a UROP-for-credit		6
Spring Term		
16.622-Experimental Projects II (12), CI-M	LAB	
16.82 Flight Vehicle Engineering (12), CI-M		12
16.90-Computational Methods in Aerospace Engin (12)		12
HASS (12)		
Term Units = 48		

TOTAL UNITS BEYOND GIRS **198**

* Students may also select to do 16.83J – Space Systems Engineering.

Notes:

1. The two Institute REST requirements (24 units) can be satisfied from among 18.03 or 18.034, and 16.001. The Institute Lab requirement (12 units) for students choosing these pathways can be fulfilled through 16.622. Units from departmental subjects that fulfill the REST and Lab requirements do not count in units beyond GIRS. Therefore, students must fill the 36-unit gap in theif departmental program by taking additional electives.
2. Students take a minimum of four professional subjects (48 units) in three different areas. Those interested in doing the option in aerospace information technology also take 48 units, 36 of which must come from subjects other than 16.100, 16.20, 16.50, 16.90.
3. Students interested in capstone 16.82 or 16.83 must complete a minimum of two professional area subjects before they enroll in either subject.