



College of Engineering

Declaration of Concentration in Aerospace Engineering

Return completed form to ENG Undergraduate Records Office, 44 Cummington Street, Room 108.

Student Name: _____ BU I D# _____

Dept/Major: _____ Email Address: _____

Advisor: _____ Expected Date of Graduation: _____

Instructions: Mechanical Engineering students declaring a Concentration in Aerospace Engineering should complete this form, obtain the signature of their Faculty Advisor below, and submit this form to the Undergraduate Records Office, 44 Cummington Street, Room 108 for processing. Please read the requirements for the concentration indicated on the reverse of this form.

PROPOSED COURSES FOR CONCENTRATION	CREDITS	SATISFIES (Major Requirement)	OFFICE USE ONLY	
			Sem/Yr	Grade
REQUIRED COURSES				
1. ENG ME 201 – Introduction to Aerospace	2.0	½ Advanced Elective		
2. ENG ME 202 – Introduction to Spacecraft	2.0	½ Advanced Elective		
3. ENG ME 425 – Compressible Flow and Propulsion	4.0	Advanced Elective		
ELECTIVES				
4.	4.0	Advanced Elective		
5.	4.0	Advanced Elective		
PROJECT *				
	0			
Total credits for Concentration:		16.0		

* In addition to the courses listed above, the Aerospace Engineering Concentration requires an Aerospace Engineering Project. A senior design project, laboratory research, industrial internship or a directed study can satisfy this requirement. A separate **Project Approval Form** is required and can be attached to this form or submitted separately.

Student Signature: _____ Date: _____

Faculty Advisor Signature: _____ Date: _____

Office Use Only

Hegis code

Records Office Verification

Date posted on UIS

Requirements for a Concentration in Aerospace Engineering

A concentration in Aerospace Engineering can be earned with the framework of the Mechanical Engineering program through the completion of a sequence of courses itemized on the front (Application) and back (Requirements) of this form.

The concentration in Aerospace Engineering can be earned by any student within the Department of Mechanical Engineering by fulfilling the following requirements:

1. Core Elective

ENG EK 102 – 2 cr
ENG EK 156 – 2 cr
ENG BE 200 – 2 cr
CAS MA 142 – 2 cr

Other acceptable Core Elective courses:

Engineering courses at the 100 level or higher, except ENG EK 280

Natural Science courses listed under the Natural Science requirement that exceed the minimum requirements for the student's degree program.

Mathematics courses not used to satisfy the mathematics requirement that have CAS MA 123 as a prerequisite.

The following **Navy ROTC courses**: OTP NS 102, OTP NS 201, OTP NS 301, and OTP NS 302

2. A sequence of five courses (16 cr) consisting of 3 required (8 cr) and two elective (8 cr) courses.

Required Courses:

ENG ME 201 * – Introduction to Aircraft – 2 cr
ENG ME 202 * – Introduction to Spacecraft – 2 cr
ENG ME 425 – Compressible Flow and Propulsion – 4 cr
[* ENG ME 201 (2 cr) + ENG ME 202 (2 cr) satisfies 1

Notes:

Offered fall only; should be taken sophomore 1
Offered spring only; should be taken sophomore 2
Offered fall only; ME 304 pre-requisite
Advanced Elective (4 cr)]

Elective Courses: (Choose two)

ENG ME 307 – Flight Structures (4 cr)
ENG ME 421 – Aerodynamics (4 cr)
ENG ME 403 – Flight Mechanics and Control (4 cr)
ENG ME 406 – Dynamics of Spaceflight – 4 cr
CAS AS 414 – Solar and Space Physics – 4 cr
ENG ME 451 – Directed Study in Aerospace – 4 cr
ENG ME 456 – Engineering Projects in Aerospace – 4 cr

Notes:

Offered spring only; ME 201 pre-requisite
Offered spring only; should be taken junior 2
Offered fall only; ME 421 pre-requisite
Offered fall only
Offered spring only

3. **Experiential Project Requirement:** Completion of a well-defined project in the aircraft or spacecraft area. A senior design project, laboratory research, industrial internship or a directed study can satisfy this requirement. This requirement must be approved by submitting the appropriate approval form to the Undergraduate Records Office. After completion of the proposed project, a written summary of the project must also be submitted for approval (see Project Approval form for more information).
4. Students must have a major of Mechanical Engineering with a Concentration of Aerospace Engineering officially declared with the Undergraduate Records Office no later than October 1st of the first semester of the senior year.