AEROSPACE ENGINEERING MAJOR – Focus on Aeronautical Engineering
Program Tracking Sheet
Effective for students entering AY 2024-2025

Name:	Class Year:
Advisor:	2nd Major:

NOTES: Minimum total academic credit = 15 units
Residency Req.: Min. of 8 units must be completed at WPI

HUMANITIES AND ARTS (6/3 unit)

Depth Component
Students must complete at least three thematically-related courses prior to the culminating Inquiry Seminar or Practicum in the same thematic area. At least one of the three courses should be at the 2000-level or above.

Breadth Component
Students must take at least one course outside the grouping in which they complete their depth component. To identify breadth, courses are grouped in the following manner.
i. art/art history, drama/theatre, and music (AR, EN/TH, MU);
ii. foreign languages (AB, CN, EN, GN, SP);
iii. literature and writing rhetoric (EN, WR, RH);
iv. history and international studies (HI, HU, INTL);
v. philosophy and religion (PY, RE).

All 5 HUA courses must be completed before beginning the Inquiry Seminar or Practicum.

Exception: May take all six courses in a foreign language

	Course	Term	Grade	Units
1				1/3
2				1/3
3				1/3
4				1/3
5				1/3
6	HU 3900 or HU 3910			1/3

WELLNESS AND PHYSICAL EDUCATION (4 WPE classes = 1/3 unit)

7				1/12
				1/12
				1/12
				1/12

SOCIAL SCIENCE (2/3 unit) ECON, ENV, GOV, PSY, SD, SOC, SS, STS, DEV, and ID2050

8				1/3
9				1/3

INTERACTIVE QUALIFYING PROJECT (3/3 unit)

10	IQP			1/3
11	IQP			1/3
12	IQP			1/3

FREE ELECTIVES (3/3 unit)

13				1/3
14				1/3
15				1/3

MATHEMATICS AND BASIC SCIENCES (10/3 units)

MATHEMATICS (7/3 unit) Courses with prefix: MA

16	MA 1021 (Calc 1)			1/3
17	MA 1022 (Calc 2)			1/3
18	MA 1023 (Calc 3)			1/3
19	MA 1024 (Calc 4)			1/3
20	MA 2051 (Diff Eqs)			1/3
21	MA 2071 Matrices and Linear Algebra			1/3
22	MA 2611 Applied Statistics I			1/3

PHYSICS (2/3 unit) Courses with prefix: PH

23	PH 1110/1111 (Mechanics)			1/3
24	PH 1120/1121 (E&M)			1/3

CHEMISTRY (1/3 unit) Course with prefix: CH

25	CH 1010 (Chem 1) or 1020 (Chem 2)			1/3

Core Aerospace Engineering (11/3 units)

FLUID DYNAMICS (2/3 unit)

26	AE 2110 Intro to Incompressible Fluid Dynamics			1/3
27	AE 3110 Fund of Compressible Fluid Dynamics			1/3

PROPULSION AND ENERGY (1/3 units)

28	AE 2210 Intro to Thermal Engineering			1/3

FLIGHT DYNAMICS AND CONTROLS (2/3 units)

29	ES 2503 Intro to Dynamic Systems			1/3
30	AE 2310 Intro to Control of Aerospace Systems			1/3

MATERIALS AND STRUCTURES (4/3 units)

31	ES 2001 Intro to Materials Science			1/3
32	AE 2410 Intro to Aerospace Structures			1/3
33	AE 3420 Fund of Aerospace Structures			1/3
34	AE 4410 Fund of Structural Dynamics			1/3

GENERAL ENGINEERING (2/3 unit)

35	AE 3010 Experimentation and Data Science with Aerospace Engineering Applications or ME 3901 Engineering Experimentation or ME 3902 Project-Based Engineering Experimentation			1/3
36	PH 2550 Atmospheric and Space Env			1/3

Aeronautics Track (9/3 units)

FLUID DYNAMICS (1/3 unit)

37	AE 3120 Fund of Aerodynamics			1/3

PROPULSION AND ENERGY (1/3 unit)

38	AE 4210 Fund of Air-breathing Propulsion			1/3

FLIGHT DYNAMICS AND CONTROLS (1/3 units)

39	AE 4310 Fund of Aircraft Dynamics and Control			1/3

MATERIALS AND STRUCTURES (1/3 unit)

40	AE 3430 Fund of Composite Materials			1/3

AEROSPACE DESIGN (4/3 unit)

41	AE 4510 Aircraft Design			1/3
42	AE MQP			1/3
43	AE MQP			1/3
44	AE MQP			1/3

ASTRONAUTICS ELECTIVE (1/3 units)

45				1/3

Selected from one of the following courses:
AE 4220 Fund of Rocket Propulsion
AE 2320 Intro to Orbital Mechanics
AE 3310 Fund of Navigation and Communication
AE 4320 Fund of Spacecraft Dynamics and Control