

ENGINEERING MECHANICS: AEROSPACE ENGINEERING

FOUR-YEAR PLAN

FOUR-YEAR PLAN EXAMPLE FOUR-YEAR PLAN

First Year

Fall	Credits Spring	Credits
CHEM 109 ¹	5 E M A 201 ³	3
MATH 221	5 MATH 222	4
Communications A	3 M E 231	3
E M A 200 or M E 201 ²	3 M E 201 ²	3
or Liberal Studies Elective	or Liberal Studies Elective	
	Liberal Studies Elective	3
	16	16

Second Year

Fall	Credits Spring	Credits
MATH 234	4 MATH 320	3
PHYSICS 202	5 STAT 324	3
E M A 202 ⁴	3 M E 361	3
COMP SCI 220	4 E M A 303 ⁴	3
INTEREGR 275 (was EPD 275)	2 E M A/M E 307 ⁴	1
	Liberal Studies Elective	3
	18	16

Third Year

Fall	Credits Spring	Credits
E M A 506	3 E M A 545	3
E M A 405	3 INTEREGR 397	3
E M A 542	3 M E 364	3
M E 363 or CIV ENGR 310	3 E C E 376, PHYSICS 321, or E C E 230	3
MATH 321	3 E M A/E P 471	3
Technical Elective	3	
	18	15

Fourth Year

Fall	Credits Spring	Credits
E M A 469	3 E M A 569	3
E M A 521 ⁶	3 E M A 523 or 524 ⁷	3
M E 446 or E C E 332	3 E M A/ASTRON 550, 610, or 642	3
Experimental Mechanics Course ⁵	3 Tech Elective	2

Liberal Studies Elective	3 Liberal Studies Elective	3
	15	14

Total Credits 128

- ¹ It is recommended that students take CHEM 109 Advanced General Chemistry for 5 credits. However, depending on their high school chemistry experience, students may substitute CHEM 103 General Chemistry I and CHEM 104 General Chemistry II for a total of 9 credits.
- ² E M A 200 or M E 201 are preferred introduction to engineering options. E M A 200 is offered in the fall only. M E 201 can be taken in the first or second semester. If a student begins in another engineering major, other introduction to engineering courses can count for the introduction to engineering requirement.
- ³ Students may substitute PHYSICS 201 General Physics, 5 credits, for E M A 201 Statics, 3 credits, with the approval of their advisor.
- ⁴ After completing E M A 201 Statics, students may take E M A 202 Dynamics and E M A 303 Mechanics of Materials/E M A/M E 307 Mechanics of Materials Lab in either order or concurrently.
- ⁵ E M A 611 Advanced Mechanical Testing of Materials or E M A/M E 540 Experimental Vibration and Dynamic System Analysis or E M A 522 Aerodynamics Lab. Note that E M A/M E 540 Experimental Vibration and Dynamic System Analysis is typically offered in the fall. E M A 611 Advanced Mechanical Testing of Materials and E M A 522 Aerodynamics Lab are typically offered in the spring.
- ⁶ M E 563 Intermediate Fluid Dynamics may be substituted for E M A 521 Aerodynamics. Note that M E 563 Intermediate Fluid Dynamics is typically offered in the spring semester only.
- ⁷ E M A 523 Flight Dynamics and Control is typically offered in the Spring semester only. E M A 524 Rocket Propulsion is typically offered in the Fall semester only.