


Fall	15 Credits	Calculus I Math 165 4 Credits	Chemistry for Engineers Chem167/177 4 Credits	Engineering Problem Solving AerE 160/H 3 Credits	Library Instruction Libr 160 1 Credit	English Composition I Engl 150 3 Credits	Engineering Orientation Engr 101	First Year
		Calculus II Math 166 4 Credits	Classical Physics I Phys 221 5 Credits	Num., Graph., & Lab Techniques AerE 161/H 3 Credits	General Education GenEd 3 Credits	Aerospace Seminar AerE 192/H		
Spring	15 Credits	Multi-variable Calculus Math 265 4 Credits	Classical Physics II Phys 232 & 232L 5 Credits	Intro to Performance & Design AerE 261 3 Credits	Statics for Engineers CE/EM 274 3 Credits	English Composition II Engl 250 3 Credits		Second Year
		Differential Equations Math 267 4 Credits	Dynamics ME/EM 345 3 Credits	Intro to Material Sci & Engrg MatE 273 3 Credits	Mechanics of Materials EM 324 3 Credits	Technical Comm Engl 309/314 3 credits		
Fall	17 Credits	Flight Structures AerE 321 3 Credits	Structures Lab AerE 322 2 Credits	Thermodynamics ME 231 3 Credits	Aero-dynamics I AerE 310 3 Credits	Astro-dynamics I AerE 351 3 Credits	Flight Dynamics & Control AerE 355 3 Credits	Third Year
		Advanced Flight Structures AerE 421 3 Credits	Comp. Techniques for Aero. Design AerE 361 3 Credits	Aerospace Systems AerE 362 3 Credits	Aerodynam-ics/Propul-sion Lab AerE 344 3 Credits	Aero-dynamics II AerE 311 3 Credits	Flight Control Systems AerE 331 3 Credits	
Spring	18 Credits	Technical Elective TechE 3 Credits	Astronautics Requirement 3 Credits <small>(see chart, page 2)</small>	Design Methodology AerE 461 3 Credits	Aerospace Vehicle Propulsion AerE 411 3 Credits	General Education GenEd 3 Credits		Fourth Year
		Technical Elective TechE 3 Credits	Technical Elective TechE 3 Credits	Design of Aerospace Systems AerE 462 3 Credits	General Education GenEd 3 Credits	General Education GenEd 3 Credits		

Basic Program

Course Groups	Aerospace Requirement	Technical Elective	Engineering Fundamentals
Mathematics	Chemistry & Physics	General Education	Seminars


## Basic Program - 24 credits

Must be completed (Basic Program GPA > 2.0 and Cumulative GPA > 2.0) before 200-Level Engr courses


	Calculus I	Math 165	4	Calculus II	Math 166	4
	Chemistry	Chem 167/177	4	Physics I	Phys 221	5
	Engrg Prob Solving	AerE 160/H	3	English 150	Engl 150	3
	Engrg Orientation	Engr 101		Library Instruction	Libr 160	1

## English Proficiency - 9 credits


Grade of C or better is required in both ENGL 150 and ENGL 250

	English Comp I Engl 150	3
	English Comp II Engl 250	3
	Technical Comm Engl 309 or 314	3


## General Education - 12 credits


	GenEd	US Diversity (3); International Perspective (3); (6) from list approved by department. Two semester sequence in a single foreign language may be applied per ISU Foreign Language Requirements.
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## Aerospace Engineering - 50 credits in 8 areas of study

	<b>Aerodynamics</b>	Aerodynamics I	AerE 310	3
		Aerodynamics II	AerE 311	3
		Aerodynamics/Propulsion Lab	AerE 344	3
	<b>Propulsion</b>	Propulsion	AerE 411	3
	<b>Structures</b>	Flight Structures	AerE 321	3
		Aero Structures Lab	AerE 322	2
		Adv Flight Structures	AerE 421	3
	<b>Controls</b>	Flight Dynamics & Control	AerE 355	3
		Flight Control Systems	AerE 331	3
	<b>Astrodynamics</b>	Astrodynamics I	AerE 351	3
	<b>Systems and Design</b>	Performance and Design	AerE 261	3
		Aerospace Systems	AerE 362	3
		Design Methodology	AerE 461	3
		Design of Aero Systems	AerE 462	3
	<b>Software and Numerics</b>	Num., Graph. Techniques	AerE 161/H	3
		Comp. Techniques for Aero. Design	AerE 361	3
	<b>Astronautics Requirement</b>	One of:		
		(a) Rocket Propulsion	AerE 415	3
		(b) Spacecraft Dynamics	AerE 433	3

## Technical Electives - 9 credits - Adviser Approval Required

	Make to Innovate/ Undergrad Research	AerE 294- Freshman and Sophomores (credits do not count towards graduation). AerE 494 - Juniors and Seniors (maximum of 6 credits may count towards graduation). See Make to Innovate Coordinator for registration procedure.
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	Technical Electives	Group-A Aerospace Electives (3 credits), group-B Technical/Engineering Electives (3 credits) and group-C Career Electives (3 credits). Consult advisers for the current approved technical elective list. Group A and B electives may be used for group C.
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