

# Courses for Bachelor's Degree in Aerospace Engineering (Admitted Fall 03 & after)

Name and SS#: \_\_\_\_\_

Academic Year	Semester	Course Number	Course Name	Cr	Gr	
Freshman 30 credits	Fall  <i>*ENGL 101 should be satisfied during the first year</i>	ENES 100	Introduction to Engr. Design	3		
		ENAE 100	The Aerospace Engineering Profession	1		
		CHEM 135	General Chemistry for Engineers	3		
		MATH 140	Calculus I	4		
		CORE *		3		
	Spring	ENES 102	Statics	3		
		ENAE 202	Aerospace Computing	3		
		MATH 141	Calculus II	4		
		PHYS 161	General Physics: Mech. And Part. Dyn.	3		
		CORE *		3		
Sophomore 34 credits	Fall	ENES 220	Mechanics of Materials	3		
		ENAE 283	Introduction to Aerospace Systems	3		
		MATH 241	Calculus III	4		
		PHYS 260/261	General Physics: Vib., Wvs., Heat, Elc., & Mag.	4		
		CORE		3		
	Spring  <i>ENAE 200 required for those students admitted Fall 04 and after.</i>	ENAE 200	The Aerospace Profession II	1		
		ENME 232 (or ENME 320)	Thermodynamics	3		
		MATH 461 (or MATH 240)	Linear Algebra	3 (4)		
		MATH 246	Differential Equations for Scientists & Engrs.	3		
		PHYS 270/271	General Physics: Elc.dyn., Light, Rel., & Mod.	4		
		CORE		3		
Junior 31 credits	Fall	ENAE 311	Aerodynamics I	3		
		ENAE 301	Dynamics of Aerospace Systems	3		
		ENAE 380	Flight Software Systems	3		
		ENAE 362	Aerospace Instrumentation & Experimentation	3		
		CORE		3		
	Spring	ENAE 324	Aerospace Structures	4		
		ENAE 432	Control of Aerospace Systems	3		
		ENGL 393	Technical Writing	3		
		CORE		3		
		<b>AERO TRACK:</b>	ENAE 414	Aerodynamics II	3	
		<b>ASTRO TRACK:</b>	ENAE 404	Space Flight Dynamics	3	

<b>Senior</b> <b>30 credits</b>  ** Dependent upon coursework completed in CORE; see bottom of form for information on this elective criteria	Fall	ENAE 423	Vibration and Aeroelasticity	3		
		**CORE or Elective		3		
	<b>AERO TRACK:</b>	ENAE 403	Aircraft Flight Dynamics	3		
		ENAE 455	Aircraft Propulsion and Power	3		
		ENAE 481	Principles of Aircraft Design	3		
	<b>ASTROTRACK:</b>	ENAE 441	Space Navigation and Guidance	3		
		ENAE 457	Space Propulsion and Power	3		
		ENAE 483	Principles of Space Systems Design	3		
	Spring	ENAE 464	Aerospace Engineering Lab	3		
		**CORE or Elective		3		
		Aerospace Elective		3		
		Technical Elective		3		
		<b>AERO TRACK: (Capstone)</b>	ENAE 482	Aeronautical Systems Design	3	
<b>ASTRO TRACK: (Capstone)</b>		ENAE 484	Space Systems Design	3		

Reviewed by Faculty Advisor \_\_\_\_\_ Date: \_\_\_\_\_ (Proposed 2/7/06)

REFERRED BY ADVISOR FOR FURTHER DEPARTMENTAL REVIEW: **Y/N** \_\_\_\_\_

<b>Total credits must be <math>\geq 124</math></b>
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### Helpful Hints for Completing Your Degree

- In completing CORE: Find a course in the Humanities and Arts, or Social and Behavioral Sciences that also fulfills the Diversity requirement; ENGL 101 should be satisfied during the freshman year; your senior design class (ENAE 482 or 484) and the Technical Elective fulfills the CORE Advanced Studies Capstone requirements.
- Complete all lower level (100 and 200) CORE before you reach 60 credits. Upon reaching 60 credits, when you register for a 100 or 200 level class, you will be placed on a hold list which does not guarantee you a seat in the course.
- Have fun with your CORE requirements and upper level electives by exploring topics you may be interested in outside of Aerospace or Engineering.
- Visit the CORE website at: <http://www.ugst.umd.edu/core/> for the CORE Worksheet, a listing of classes that satisfy CORE, and answers to general questions about the general education requirements.
- An Aerospace Elective is a 400 level ENAE course; this can be an ENAE 488 course or the Aerospace Research Thesis for 3 credits (ENAE 398H or 499). Only 3 credits of research can be applied to an aerospace engineering degree.
- A Technical Elective is a 300 or 400 level course outside of department that is technical in nature. This can include engineering courses outside of aerospace, PHYS, MATH, CHEM or some ASTR courses (cannot be those ASTR courses listed as "not for science majors"). The final approval of the TE is up to the discretion of the department.
- The CORE/Elective must either be a course taken to complete your CORE requirements, or if you have completed all CORE requirements, a 300 or 400 level elective. The elective can be in any subject area including, but not limited to, the following programs: Hinman CEO's, Quest, or Honors. The final approval of the upper level elective is up to the discretion of the department.
- A majority of aerospace courses are only offered once a year. If you feel you must withdraw from an aerospace class, this could affect how long it takes you to complete your degree.
- Take advantage of the Aerospace Student Lounge and Design Lab on the first floor of Martin Hall. These are great places to meet other students, obtain help with your course work, and keep updated on events and activities.
- Degree Audits should be performed 1 year out from graduation.