

NAME: \_\_\_\_\_

# AEROSPACE ENGINEERING

UID: \_\_\_\_\_    A.A.    A.S.    Post-Bac

## GENERAL EDUCATION REQUIREMENTS

### Fundamental Studies

Academic Writing (AW)	ENGL 101		3
Professional Writing (PW)	ENGL 393		3
Oral Communication (OC)			3

### Distributive Studies

History/Social Sciences (HS*)			3
History/Social Sciences (HS*)			3
Humanities (HU*)			3
Humanities (HU*)			3
Scholarship in Practice (SP*) out of major			3

### I-Series Courses

I-Series (IS*)			0/3
I-Series (IS*)			0/3

### Diversity

Understanding Plural Societies (UP*)			0/3
Understanding Plural Societies (UP*) OR Cultural Competency (CC*)			0/3

## MAJOR REQUIREMENTS

### Basic Sciences

CHEM 135-Chem Engr or 131 & 134 -Fund & Prin			3/3&1
PHYS 161 - General Physics I (NS)			3
PHYS 260 and PHYS 261 - Gen Physics II & Lab (NL)			3 & 1
PHYS 270 and PHYS 271 - Gen Physics III & Lab			3 & 1
MATH 140 - Calculus I (MA/AR)			4
MATH 141 - Calculus II			4
MATH 240 or MATH 461 - Linear Algebra			4 or 3
MATH 241 - Calculus III			4
MATH 246 - Differential Equations			3

### Engineering Sciences

ENES 100 - Intro to Eng Design (SP)			3
ENES 102 - Mechanics I			3
ENES 220 - Mechanics II			3
ENES232 - Thermodynamics			3

\* May satisfy more than one requirement. See [www.gened.umd.edu](http://www.gened.umd.edu)

\*\*See Aerospace Advisor for appropriate electives: [www.aero.umd.edu](http://www.aero.umd.edu)

### For Degree Clearance Only

Degree: B.S. ENAE	Advisor: _____
Date: _____	Credits/GPA : _____

## MAJOR REQUIREMENTS

ENAE 100 - Aerospace Eng Profession			1
ENAE 200 - Aerospace Eng Profession II			1
ENAE 202 - Aerospace Computing			3
ENAE 283 - Intro to Aerospace Systems			3
ENAE 301 - Dynamics of Aero Systems			3
ENAE 311 - Aerodynamics I			3
ENAE 324 - Aerospace Structures			4
ENAE 362 - Aero Instrumentation & Exp.			3
ENAE 380 - Flight Software Systems			3
ENAE 423 - Vibration & Aeroelasticity			3
ENAE 432 - Control of Aero. Systems			3
ENAE 464 - Aerospace Eng Lab			3
ENAE 4XX** or			3
ENAE 398H - Honors Research**			1/1/1

### Technical Requirements

Technical Elective - 4XX**			3
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### Choose one of the following tracks:

#### Aeronautical Track:

ENAE 403 - Aircraft Flight Dynamics			3
ENAE 414 - Aerodynamics II			3
ENAE 455 - Aircraft Propulsion & Power			3
ENAE 481 - Principles of Aircraft Design			3
ENAE 482 - Aeronautical Systems Design			3

#### Astronautical Track:

ENAE 404 - Space Flight Dynamics			3
ENAE 441 - Space Navigation & Guidance			3
ENAE 457 - Space Propulsion & Power			3
ENAE 483 - Princ. of Space Systems Design			3
ENAE 484 - Space Systems Design			3

### Requirements for Graduation:

- Final 30 credits must be earned at UMD
- 15 of the final 30 credits must be earned at the 300-400 level
- 12 of the final 30 credits must be upper level major coursework
- A minimum 2.00 cumulative UM GPA and satisfactory completion of all degree requirements are required for graduation
- Students matriculating after Fall 2012 must have a 2.0 minimum GPA for all major requirements, minor requirements, and undergraduate certificate requirements  
(Major courses are defined as: departmental courses, basic sciences, engineering sciences, specified degree tracks, technical requirements/ electives and ENGL 393)
- A minimum of 124 credits is required to earn the degree

# Aerospace Engineering Four Year Academic Plan

Name: \_\_\_\_\_

UID: \_\_\_\_\_

Year 1	Fall		
Gateway requirements include: ENGL 101, CHEM 135, MATH 141, PHYS 161 and an approved Distributive Studies course. (Directly admitted freshman must successfully complete these courses and ENES 100 by 45 UM credits.)	Course	Credit	Grade
	ENAE 100	1	
	ENES 100 (SP)	3	
	MATH 140 (AR)	4	
	CHEM 135	3	
	ENGL 101 (AW)	3	
	<b>Total</b>	<b>14</b>	

Spring		
Course	Credit	Grade
ENAE 202	3	
ENES 102	3	
MATH 141	4	
PHYS 161 (NS)	3	
Hist & Social Sciences(HS)*	3	
<b>Total</b>	<b>16</b>	

Year 2	Fall		
	Course	Credit	Grade
	ENES 220	3	
	ENAE 283	3	
	MATH 241	4	
	PHYS 260 and PHYS 261 (NL)	3 & 1	
	ORAL COMM (OC)	3	
	<b>Total</b>	<b>17</b>	

Spring		
Course	Credit	Grade
ENAE 200	1	
ENES 232 or ENME 320	3	
MATH 240 or MATH 461	4 or 3	
MATH 246	3	
PHYS 270 and PHYS 271	3 & 1	
Hist & Social Sciences(HS)*	3	
<b>Total</b>	<b>17 or 18</b>	

Year 3	Fall		
	Course	Credit	Grade
	ENAE 301	3	
	ENAE 311	3	
	ENAE 362	3	
	ENAE 380	3	
	Scholarship in Practice (SP)*	3	
	<b>Total</b>	<b>15</b>	

Spring		
Course	Credit	Grade
ENAE 324	4	
ENAE 404 or ENAE 414	3	
ENAE 432	3	
ENGL 393 (PW)	3	
Humanities (HU)*	3	
<b>Total</b>	<b>16</b>	

Year 4	Fall		
	Course	Credit	Grade
	ENAE 403 or ENAE 441	3	
	ENAE 423	3	
	ENAE 455 or ENAE 457	3	
	ENAE 481 or ENAE 483	3	
	Humanities (HU)*	3	
	<b>Total</b>	<b>15</b>	

Spring		
Course	Credit	Grade
ENAE 464	3	
ENAE 482 or ENAE 484	3	
ENAE Elective	3	
Technical Elective	3	
Gen Ed/Elective	3	
<b>Total</b>	<b>15</b>	

\*All students must complete two Distributive Studies courses that are approved for I-series courses. The Understanding Plural Societies (UP) and Cultural Competence (CC) courses may also fulfill Distributive Studies categories.

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