PURDUE UNIVERSITY

School of Aeronautics and Astronautics
COLLEGE OF ENGINEERING

Fall 2018

AAE Engineering Major Courses (56 credits)

_____	(0)	AAE 20000 – Undergrad Sophomore Seminar
_____	(3)	AAE 20300++ – Aeromechanics I
_____	(3)	AAE 25100 – Intro Aerospace Design
_____	(3)	AAE 20400++ – Aeromechanics II
_____	(1)	AAE 20401 – Aeromechanics II Lab
_____	(0)	AAE 30000 – Undergrad Junior Seminar
_____	(3)	AAE 30100 – Signals Analysis
_____	(3)	AAE 33300 – Fluid Mechanics
_____	(1)	AAE 33301 – Fluid Mechanics Lab
_____	(3)	AAE 33400 – Aerodynamics
_____	(1)	AAE 33401/AAE 35201 – Aerodynamics Lab/ Structural Analysis Lab
_____	(3)	AAE 34000 – Dynamics and Vibrations
_____	(3)	AAE 33800/33900 – Thermal Sciences/Aerospace Propulsion (Spring only)
_____	(3)	AAE 35200 – Structural Analysis I
_____	(3)	AAE 36400 – Control System Analysis
_____	(1)	AAE 36401 – Controls Systems Laboratory
_____	(1)	AAE 40000 – Undergrad Senior Seminar
_____	(3)	AAE 42100/44000 – Flight Dynamics & Control/Spacecraft Attitude Dynamics (Spring only)
_____	(3)	AAE 45000/45100 – Spacecraft Design/Aircraft Design
_____	(9)	AAE Specialization
_____	(6)	AAE Selectives

Other Departmental/Program Course Requirements (74 – 77 credits)

_____	(2)	CGT 16300 – Graphical Communication and Spatial Analysis
_____	(4)	CHM 11500++* – General Chemistry I *(Satisfies FYE requirement)*
_____	(3)	Oral Communication++* (COM 11400 – Fund. Of Speech Communication PREFERRED)*(Satisfies FYE requirement)*
_____	(3)	CS 15900/17700/18000++ – Computer Programming *(Satisfies FYE requirement)*
_____	(2)	ENGR 13100++* – Transforming Ideas to Innovation I *(Satisfies FYE requirement)*
_____	(2)	ENGR 13200++ – Transforming Ideas to Innovation II *(Satisfies FYE requirement)*
_____	(3)	Written Communication++* (ENGL 10600/ENGL 10800 – Written Composition PREFERRED)*(Satisfies FYE requirement)*
_____	(4/5)	MA 16500/16100++* – Calculus I *(Satisfies FYE requirement)*
_____	(4/5)	MA 16600/16200++* – Calculus II *(Satisfies FYE requirement)*
_____	(4)	MA 26100++* – Calculus III
_____	(3)	MA 26500* – Linear Algebra
_____	(3)	MA 26600* – Ordinary Differential Equations
_____	(3)	MA 30300/30400 – Differential Equations and Analysis of Nonlinear Systems for Engr. & Sci.
_____	(3)	ME 20000 – Thermodynamics
_____	(4)	PHYS 17200++* – Modern Mechanics *(Satisfies FYE requirement)*
_____	(3/4)	PHYS 24100/27200 – Electricity Optics/E&M Interactions
_____	(6)	AAE Technical Electives
_____	(12)	General Education Electives++*
_____	(3)	AAE Business Rule++
_____	(3)	AAE Communications Rule++

University Core Requirements*

Human Cultures Humanities	☐	**General Education++**	*Science, Technology & Society Selective*	☐	**General Education++**
Human Cultures Behavioral/Social Science	☐	**General Education++**	*Written Communication*	☐	**ENGL 10600/10800++**
Information Literacy	☐	**ENGR 13100++**	*Oral Communication*	☐	**COM 11400++**
Science Selective	☐	**PHYS 17200++**	*Quantitative Reasoning*	☐	**MA 26500**
Science Selective	☐	**CHM 11500++**			

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The student is ultimately responsible for knowing and completing all degree requirements.
Degree Works is knowledge source for specific requirements and completion

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++Critical Courses ("C-" or better required)
*Satisfies a University Core Requirement

Aeronautical and Astronautical Engineering

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisites
4	MA 16500++*	85 ALEKS or SAT/ACT
4	CHM 11500++*	75 ALEKS or SAT/ACT
4-3	ENGL 10600 or 10800++*	
2	ENGR 13100++*	FYE Major
2	CGT 16300	ENGR Major
15-16		

Credits	Spring 1st Year	Prerequisites
4	MA 16600++*	Calc 1
4	PHYS 17200++*	Calc 1 co-req
3	CS 15900++	ENGR 131 co-req
2	ENGR 13200++	FYE Major; ENGR 131
3	COM 11400++*	
16		

Credits	Fall 2nd Year	Prerequisites
3	AAE 20300++	PHYS 172; Calc III co-req
3	AAE 25100	ENGR 132; CGT 163; AAE 200 co-req; CS 159 co-req
4	MA 26100++*	Calc II
3	UCC Humanities++* (General Education I)	
3	MA 26500*	Calc III co-req
0	AAE 20000	Major: Soph
16		

Credits	Spring 2nd Year	Prerequisites
3	AAE 20400++	AAE 203
1	AAE 20401	AAE 204 co-req
3	PHYS 24100	PHYS 172
3	MA 26600*	MA 261
3	ME 20000	CHM 115; MA 261 co-req; ENGR 132 co-req
3	UCC Behavioral/Social Science++* (General Education II)	
16		

Credits	Fall 3rd Year	Prerequisites
3	AAE 33300	AAE 203; AAE 200; AAE 251 co-req; MA 303/304 co-req
1	AAE 33301	AAE 333 co-req
3	AAE 35200	AAE 204; AAE 20401; AAE 200; AAE 251 co-req
3	MA 30400	MA 266
3	AAE 30100	AAE 200; MA 265; MA 266; AAE 251 co-req
3	General Education III++	
0	AAE 30000	AAE 200
16		

Credits	Spring 3rd Year	Prerequisites
3	AAE 33400	AAE 333; AAE 33301; ME 200
1	AAE 33401 **OR** AAE 35201	AAE 334 or 352 co-req
3	AAE 34000	AAE 203; MA 304
3	AAE 36400	AAE 301
3	AAE 33800 **OR** AAE 33900	AAE 200; ME 200; AAE 334 co-req
3	General Education IV++ (could satisfy UCC STS*)	
16		

Credits	Fall 4th Year	Prerequisites
3	Technical Elective	
1	AAE 36401	AAE 364
6	Specialization/AAE Selective	
3	Business Selective or General Education VI++	
3	Technical Elective (could satisfy UCC STS*)	
1	AAE 40000	AAE 300
17		

Credits	Spring 4th Year	Prerequisites
3	AAE 44000 **OR** 42100	AAE 340; AAE 300
3	AAE 45000 **OR** 45100	AAE 334; AAE340; AAE 352; AAE 364; AAE 400 co-req
9	Specialization/AAE Selective	
3	Writing/Speaking Selective++	
18		=130-131

++Critical Courses ("C-" or better required)

*Satisfies a University Core Requirement

130 semester credits required for Bachelor of Science degree

2.0 Graduation GPA and 2.0 AAE major GPA required for Bachelor of Science degree