

**Departmental/Program Major Courses (116 credits)**

**Required Major Courses (58 credits)**

- \_\_\_\_\_ (3) AT 10100 Gateway to Aviation Technology
- \_\_\_\_\_ (3) AT 10200 Aviation Business
- \_\_\_\_\_ (3) AT 10300 Aerospace Vehicle Propulsion and Tracking Systems
- \_\_\_\_\_ (3) AT 20200 Aerospace Vehicle Systems Design, Analysis and Operations
- \_\_\_\_\_ (3) AT 20300 Aviation Operations Management
- \_\_\_\_\_ (1) AT 49600 Applied Research Proposal
- \_\_\_\_\_ (3) AT 49700 Applied Research Project
- \_\_\_\_\_ (3) AT 26700 Fixed & Rotary Wing Assemblies
- \_\_\_\_\_ (3) AT 27200 Introduction to Composite Technology
- \_\_\_\_\_ (3) AT 27800 Nondestructive Testing for Aircraft
- \_\_\_\_\_ (3) AT 30702 Advanced Aircraft Systems
- \_\_\_\_\_ (3) AT 30802 Aircraft Materials Processes
- \_\_\_\_\_ (3) AT 33502 Avionics Systems
- \_\_\_\_\_ (3) AT 36302 Fundamentals of Powerplant Systems
- \_\_\_\_\_ (3) AT 37002 Aircraft Powerplant Technology
- \_\_\_\_\_ (3) AT 37200 Aircraft Maintenance Practices
- \_\_\_\_\_ (3) AT 37600 Aircraft Gas Turbine Engine Technology
- \_\_\_\_\_ (3) AT 38500 Design Support Analysis
- \_\_\_\_\_ (3) AT 44502 Aircraft Electronics
- \_\_\_\_\_ (3) AT 47600 Aircraft Gas Turbine Engine Technology II

**Other Departmental /Program Course Requirements (58 credits)**

- \_\_\_\_\_ (3) Humanities Foundational Selective (*satisfies Human Cultures Humanities for core*)
- \_\_\_\_\_ (3) Behavioral/Social Science Foundational Selective (*satisfies Human Culture Behavioral/Social Science for core*)
- \_\_\_\_\_ (3) TECH 12000 (*satisfies Information Literacy Selective for core*)
- \_\_\_\_\_ (4) PHYS 21800 (*satisfies Science Selective for core*)
- \_\_\_\_\_ (3) Science Foundational Selective (*satisfies Science Selective for core*)
- \_\_\_\_\_ (3) ENGL 10600 or ENGL 10800 (*satisfies Written Communication for core*)
- \_\_\_\_\_ (3) COM 11400 (*satisfies Oral Communication for core*)
- \_\_\_\_\_ (3) MA 15800 (*satisfies Quantitative Reasoning Selective for core*)
- \_\_\_\_\_ (3) MA 22100 (*satisfies Quantitative Reasoning Selective for core*)
- \_\_\_\_\_ (3) Economics Selective
- \_\_\_\_\_ (3) Advanced English Selective
- \_\_\_\_\_ (3) Technical Communications Selective
- \_\_\_\_\_ (3) STAT 30100
- \_\_\_\_\_ (3) AT 20501
- \_\_\_\_\_ (3) TECH 32000
- \_\_\_\_\_ (12) Any University-approved minor or departmentally-approved thematic area of study

**Electives (4 credits)**

- \_\_\_\_\_ (4) **Free Electives** \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( )
- \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( )

**University Core Requirements**

Human Cultures Humanities	€	<u><b>UCC Selective</b></u>	Science, Technology & Society Selective	€	<u><b>TECH 12000</b></u>
Human Cultures Behavioral/Social Science	€	<u><b>UCC Selective</b></u>	Written Communication	€	<u><b>ENGL 10600 / 10800</b></u>
Information Literacy	€	<u><b>TECH 12000</b></u>	Oral Communication	€	<u><b>COM 11400</b></u>
Science Selective	€	<u><b>PHYS 21800</b></u>	Quantitative Reasoning	€	<u><b>MA 15800</b></u>
Science Selective	€	<u><b>UCC Selective</b></u>	Quantitative Reasoning	€	<u><b>MA 22100</b></u>

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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**

### Aeronautical Engineering Technology

FIRST SEMESTER			SECOND SEMESTER		
	Prerequisite	CR		Prerequisite	CR
AT 10100 - Gateway to Aviation Technology		3	AT 10300 - Aerospace Vehicle Propulsion		3
MA 15800 – Precalculus		3	AT 27800 - Nondestructive Testing		3
TECH 12000 - Technology and the Individual		3	COM 11400 - Fundamentals of Speech Communication		3
AT 10200 - Aviation Business		3	Behavioral / Social Science Selective		3
English Composition Selective		3	Calculus Selective		3
<b>Total</b>		<b>15</b>	<b>Total</b>		<b>15</b>

THIRD SEMESTER			FOURTH SEMESTER		
	Prerequisite	CR		Prerequisite	CR
Humanities Selective		3	AT 20501 – Statics for Aerostructures	AT 10100, MA 22100	3
AT 20200 - Aerospace Vehicle Systems	AT 10100	3	Thematic Area Selective (AT 26502 for A&P)		3
AT 26700 - Fixed And Rotary Wing Assemblies	AT 10100	3	Thematic Area Selective (AT 20802 for A&P)		3
Thematic Area Selective <sup>1</sup> (CGT 16300 + AT 47700 for A&P)		3	PHYS 21800 – General Physics		4
AT 20300 - Aviation Operations Management	AT 10200	3	Science Selective		3
<b>Total</b>		<b>15</b>	<b>Total</b>		<b>16</b>

FIFTH SEMESTER			SIXTH SEMESTER		
	Prerequisite	CR		Prerequisite	CR
AT 36302 - Fundamentals Of Powerplant Systems	AT 10300	3	AT 30802 - Aircraft Materials Processes	AT 20100, MA 22100, PHYS 21800	3
AT 27200 - Introduction To Composite Technology	AT 20100	3	AT 37600 - Aircraft Gas Turbine Engine Technology I	AT 10300	3
AT 37002 - Advanced Aircraft Powerplants	AT 10300	3	Free Elective		3
STAT 30100 - Elementary Statistical Methods		3	AT 33502 - Avionics Systems	AT 20200	3
Economics Selective		3	Advanced English Selective		3
<b>Total</b>		<b>15</b>	<b>Total</b>		<b>15</b>

SEVENTH SEMESTER			EIGHTH SEMESTER		
	Prerequisite	CR		Prerequisite	CR
AT 44502 - Aircraft Electronics	AT 33502	3	AT 37200 - Aircraft Maintenance Practices	AT 30700 or AT 30702, AT 37000, AT 37600	3
AT 47600 - Aircraft Gas Turbine Engine Technology II	AT 37600	3	AT 49700 - Applied Research Project	AT 49600	3
TECH 32000 - Technology and the Organization	TECH 12000	3	Thematic Area Selective (AT 47200 for A&P)		3
Free Elective		1	AT 38500 – Design Support Analysis	STAT 30100	3
AT 49600 - Applied Research Proposal	AT 30802, AT 20501, STAT 30100	1	Technical Communication Selective		3
AT 30702 - Advanced Aircraft Systems	AT 20200	3	Globalization		0
<b>Total</b>		<b>14</b>	<b>Total</b>		<b>15</b>

**120 semester credits required for Bachelor of Science degree.  
2.0 Graduation GPA required for Bachelor of Science degree.**

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# AVIATION TECHNOLOGY FALL 2013 CURRICULUM DETAILS

## English Composition Selectives

ENGL 10600  
ENGL 10800

## Advanced English Selectives

ENGL 42000  
ENGL 42100

## Technical Communication Selectives

COM 31500  
COM 32000  
COM 32400  
COM 41500

## Calculus Selectives

MA 16010  
MA 16100  
MA 16500  
MA 22100  
MA 22300

## Economics Selectives

ECON 21000  
ECON 25100  
ECON 25200

## Science, Humanities, and Behavioral/Social Science Selectives per UCC listing

### Thematic Area Selective Requirement (Can be fulfilled by **any** of the following):

- Any University-approved minor
- 6 credit hours of 20000- or higher-level courses AND 6 credit hours of 30000 or higher-level courses from any of the following departments: AT, EAS, ECON, ENTR, HTM, IT, MGMT, OLS, or POL
- 12 consecutive credit hours in a Foreign Language

### Aviation Management:

Aviation Management selectives may consist of any 30000, 40000, or 50000 level AT prefixed courses.

#### Air Traffic Control Focus Area

Any student in the Aviation Management major is eligible to complete the FAA CTI program. A detailed explanation of the curriculum is available online at [www.tech.purdue.edu/at](http://www.tech.purdue.edu/at). Required courses for the Air Traffic Control focus area are AT 28500, AT 36900, and AT 47900.

#### Airport Management

Recommended courses for the Airport Management focus area are AT 35900, AT 45100, and AT 45900.

#### Airline Management

Recommended courses for the Airline Management focus area are AT 33800 and AT 43800.

### Airframe & Powerplant Certificate

AENT students are highly encouraged to enroll in the following courses in order to receive the FAA A&P certificate. These courses can be utilized to meet the Thematic Area graduation requirements.

- AT 36302
- AT 37200
- AT 40200
- AT 47200

Seeking A&P certificate (Please indicate by initialing): Yes \_\_\_\_\_ No \_\_\_\_\_

### Globalization Requirement

Due to the international nature of the aviation industry, all B.S. degree students must meet the department's globalization requirement through one of the following options:

- Complete any university-sponsored study abroad program lasting at least 7 days
- Complete an internship or approved international research project that involves at least 7 days of international travel
- Provide documentation of having lived/traveled outside the U.S. for at least 15 days after a student's 12<sup>th</sup> birthday.
- Complete or place out of the Level IV (12 credit hours) course in any 1 foreign language.