

**TO:** The Faculty of the College of Engineering

**FROM:** School of Aeronautics and Astronautics of the College of Engineering

**RE:** Curriculum Change for the B.S. Degree in Aeronautical and Astronautical Engineering

The faculty of the School of Aeronautics and Astronautics has approved the following new changes in the curriculum for the B.S. degree in Aeronautical and Astronautical Engineering effective for students entering the School in the Fall Semester 2018. This action is now submitted to the Engineering Faculty with a recommendation for approval.

**New Requirements:** A new honors course number has been established in First Year Engineering, ENGR 16200.

**Reason:** Incorporated ENGR 16200 into AAE curriculum as acceptable for PHYS 17200

Approved for the faculty of the Schools  
of Engineering by the Engineering  
Curriculum Committee

ECG Minutes 10 Date 2/6/17  
Chairman ECG [Signature]

**Current**

## Program Requirements

**Fall 1st Year**

MA 16500 - Analytic Geometry And Calculus I

CHM 11500 - General Chemistry \*

ENGL 10600 - First-Year Composition \* or

ENGL 10800 - Accelerated First-Year Composition \*

ENGR 13100 - Transforming Ideas To Innovation I \*

CGT 16300 - Graphical Communication And Spatial Analysis \*\*

15 Credits

**Spring 1st Year**

MA 16600 - Analytic Geometry And Calculus II

PHYS 17200 - Modern Mechanics \*

CS 15900 - Programming Applications For Engineers \*\*

ENGR 13200 - Transforming Ideas To Innovation II \*

COM 11400 - Fundamentals Of Speech Communication \*

16 Credits

Note: Students planning to enter AAE are encouraged to take CGT 16300 and CS 15900 in the freshman year. CS 15900 is recommended as the Science Selective.

**Fall 2nd Year**

AAE 20300 - Aeromechanics I ++

AAE 25100 - Introduction To Aerospace Design

MA 26100 - Multivariate Calculus

Gen Elective I - Credit Hours: 3.00

MA 26500 - Linear Algebra \*

AAE 20000 - Undergraduate Sophomore Seminar

16 Credits

**Proposed**

## Program Requirements

**Fall 1st Year**

Same

Same

Same

Same

Same

Same

Same

**Spring 1st Year**

Same

PHYS 17200 - Modern Mechanics or ENGR 16200 Honors introduction to innovation and the physical science of engineering design II

Same

Same

Same

Same

Same

**Fall 2nd Year**

Same

Same

Same

Same

Same

Same

Same

**Spring 2nd Year**

AAE 20400 - Aeromechanics II ++  
 AAE 20401 - Aeromechanics II Laboratory  
 PHYS 24100 - Electricity And Optics \*\*  
 MA 26600 - Ordinary Differential Equations  
 ME 20000 - Thermodynamics I \*\*  
 Gen Elective II - Credit Hours: 3.00  
 16 Credits

**Spring 2nd Year**

Same  
 Same  
 Same  
 Same  
 Same  
 Same  
 Same

**Fall 3rd Year**

AAE 33300 - Fluid Mechanics  
 AAE 33301 - Fluid Mechanics Laboratory  
 AAE 35200 - Structural Analysis I  
 MA 30400 - Differential Equations And Analysis Of Nonlinear  
 Systems For Engineering And The Sciences  
 AAE 30100 - Signal Analysis For Aerospace Engineering  
 AAE 30000 - Undergraduate Junior Seminar  
 Gen Elective III - Credit Hours: 3.00  
 16 Credits

**Fall 3rd Year**

Same  
 Same  
 Same  
 Same  
 Same  
 Same  
 Same  
 Same

**Spring 3rd Year**

AAE 33400 - Aerodynamics  
  
 AAE 33401 - Aerodynamics Laboratory or  
 AAE 35201 - Structural Analysis I Laboratory  
  
 AAE 33800 - Thermal Sciences or  
 AAE 33900 - Aerospace Propulsion  
  
 AAE 34000 - Dynamics And Vibrations  
 AAE 36400 - Control System Analysis  
 Gen Elective IV - Credit Hours: 3.00  
 16 Credits

**Spring 3rd Year**

Same  
  
 Same  
  
 Same  
  
 Same  
 Same  
 Same  
 Same

**Fall 4th Year**

AAE 36401 - Control Systems Laboratory  
 Major Concentration Area/AAE Selective - Credit Hours: 6.00  
 Gen Elective V - Credit Hours: 3.00  
 Tech Elective - Credit Hours: 3.00  
 AAE 40000 - Undergraduate Senior Seminar  
 AAE 42100 - Flight Dynamics And Control or Tech Elective  
 17 Credits

**Fall 4th Year**

Same  
 Same  
 Same  
 Same  
 Same  
 Same  
 Same

**Spring 4th Year**

AAE 44000 - Spacecraft Attitude Dynamics or Tech Elective  
Major Concentration Area/AAE Selective - Credit Hours: 9.00  
Gen Elective VI - Credit Hours: 3.00

AAE 45000 - Spacecraft Design or  
AAE 45100 - Aircraft Design  
18 Credits

**Note**

\*Satisfies a University Core Requirement  
\*\*Satisfies a Non-departmental Major Course Requirement  
++Students must earn a "C-" or better  
130 semester credits required for Bachelor of Science degree.  
2.0 Graduation GPA required for Bachelor of Science degree.

**Degree Requirement**

The student is ultimately responsible for knowing and completing all degree requirements.  
The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

**Critical Course**

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

**Foreign Language Courses**

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

**Spring 4th Year**

Same  
Same  
Same

Same  
Same

**Note**  
Same

**Degree Requirement**

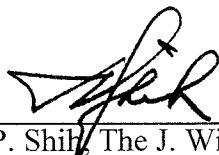
Same  
Same

**Critical Course**

Same

**Foreign Language Courses**

Same  
Same



Tom I-P. Shih, The J. William Uhrig and Anastasia Vournas  
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School of Aeronautics and Astronautics