# AEROSPACE ENGINEERING CHECK SHEET

**GENERAL**

**COMMUNICATIONS (9 hrs.)**
Grades of C or better are required in all three of the Communications courses below
- ENGL 101 (3)
- ENGL 102 (3)
- COMM 111 (3)

**GENERAL EDUCATION (18 hrs.)**
All six courses must be chosen from the approved General Education Program Course listing in the WSU Undergraduate Catalog.

<table>
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<tr>
<th>1 Introductory Humanities Course</th>
<th>1 Introductory Social and Behavioral Science Course</th>
<th>1 Introductory Course in either Humanities or Social and Behavioral Science</th>
<th>1 Further Studies Course in the Same Department as One of the Above Courses</th>
<th>1 Introductory Fine Arts Course</th>
<th>PHIL 385 (required by AE program)</th>
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</table>

**ENGINEER OF 2020**
Students must complete three out of the following six categories: (1) Undergraduate Research; (2) Cooperative Education/Internship; (3) Global Learning/Study Abroad; (4) Service Learning; (5) Leadership; (6) Multi-Disciplinary.

**MATHEMATICS & NATURAL SCIENCES (34 hrs.)**

**Math**
- MATH 242 (5)
  - (P: See WSU Catalog)
- MATH 243 (5)
  - (P: MATH 242 with a C or better)
- MATH 344 (3)
  - (P: MATH 243 with a C or better)
- MATH 555 (3)
  - (P: MATH 243 with a C or better)

**Natural Science**
- CHEM 211 (5)
  - (P: See WSU Catalog)
- PHYS 313 (4)
  - (C: MATH 243)
- PHYS 314 (4)
  - (P: MATH 243 with a C or better, PHYS 313)
- PHYS 315 (1)
  - (C: PHYS 313)
- Nat Sci Elect (3)
  - Choose one course from the following (some are > 3 hrs.):
    - Biology – 210, 211, 223, 310, 370, 5_ _ or above
    - Chemistry – 212, 301, 5_ _ or above
    - Geology – 102, 111, 235, 5_ _ or above
    - Physics – 195, 196, 223, 5_ _ or above

**MAJOR**

Major GPA based upon the courses listed below

**ENGINEERING CORE (13 hrs.)**
- AE 223 (3) – Offered Fall/Spring/Summer
  - (PHYS 313, C: MATH 243)
- IME 255 (3)
  - (C: MATH 242)
- EE 282 (4)
  - (C: MATH 243)
- ME 398 (3)
  - (P: MATH 243 with a C or better, PHYS 313 with a C or better)

**REQUIRED COURSES (52 hrs.)**
- IME 222 (3)
  - (P: MATH 123 or equiv.)
- AE 227 (3) – Offered Fall/Spring
  - (C: MATH 243)
- ME 250 (3)
  - (P: MATH 242 with a C or better, CHEM 211 with a C or better)
- AE 324 (3) – Offered Fall/Spring
  - (P: AE 223 with a C or better, C: AE 227)
- AE 333 (3) – Offered Fall/Spring/Summer
  - (P: AE 223 with a C or better, C: MATH 344)
- AE 373 (3) – Offered Fall/Spring/Summer
  - (P: AE 223 with a C or better, MATH 344)
- AE 415 (3) – Offered Fall Only
  - (P: AE 373 with a C or better, AE 227, C: MATH 555)
- AE 424 (3) – Offered Fall/Summer
  - (P: MATH 555, AE 324 with a C or better, AE 373)
- AE 502 (3) – Offered Spring Only
  - (P: AE 227, AE 373, ME 398, C: AE 524)
- AE 512 (3) – Offered Fall/Spring
  - (P: AE 333, AE 424, C: AE 524)
- AE 514 (3) – Offered Spring Only
  - (P: AE 415, C: AE 424)
- AE 524 (3) – Offered Fall/Summer
  - (P: AE 424)
- AE 525 (3) – Offered Fall Only
  - (P: AE 333 with a C or better, C: MATH 555)
- AE 528 (4) – Offered Fall Only
  - (P: AE 502, AE 514, AE 525)
- AE 607 (3) – Offered Fall Only
  - (P: AE 514)
- AE 625 (3) – Offered Spring Only
  - (P: AE 333, AE 525)
- AE 628 (4) – Offered Spring Only
  - (P: AE 528)

**TECHNICAL ELECTIVES (9 hrs.)** – Offered Fall/Spring
Technical elective classes allow you to either broaden or to enhance your technical knowledge. These courses must be taken from engineering, math, or science - preferably during your senior year and only after carefully considering career goals and consulting with your faculty advisor. With the exception ENGR 101 (3 credit hours) all technical elective classes must be upper division with MATH 242 or higher as a prerequisite. A maximum of 3 credit hours may be taken outside of aerospace engineering.
### AEROSPACE ENGINEERING CHECK SHEET

#### Effective date: February 2015

<table>
<thead>
<tr>
<th>Subject</th>
<th>Freshman</th>
<th>Summer</th>
<th>Sophomore</th>
<th>Fall</th>
<th>Spring</th>
<th>Junior</th>
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<th>Spring</th>
<th>Senior</th>
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<tr>
<td>ENGL 101 (3)</td>
<td>College English I</td>
<td>ENGL 102 (3)</td>
<td>College English 2</td>
<td>ENGL 101</td>
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<td>IME 222 (3)</td>
<td>Engineering Graphics</td>
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<td>General Chemistry I</td>
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<td>MATH 242 (5)</td>
<td>Calculus I</td>
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<td>PHYS 315 (1)</td>
<td>University Physics Lab I</td>
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Notes: 1) AE 415, 525, 528, and 607 are only offered during the Fall and AE 502, 514, 625, and 628 are only offered during the Spring.
2) A C-minus grade does not meet AE or ME department “C or better” prerequisite requirements.

#### Aerospace Engineering Curriculum Flow Chart

- **Prerequisite**
- **Corequisite**

- **Subject**
  - **Fall**
  - **Spring**
  - **Sophomore**
  - **Fall**
  - **Spring**
  - **Junior**
  - **Fall**
  - **Spring**
  - **Senior**
  - **Fall**
  - **Spring**

- **Subject**
  - **Math**
    - **Fall**
    - **Spring**
    - **Sophomore**
    - **Fall**
    - **Spring**
    - **Junior**
    - **Fall**
    - **Spring**
    - **Senior**
    - **Fall**
    - **Spring**

- **Science**
  - **Fall**
  - **Spring**

- **Other Engr**
  - **IME 222 Graphics**

- **AE Core & Design**
  - **AE 227 Digital Comp**

- **Aerodyn & Propulsion**
  - **AE 373 Dynamics**
  - **AE 415 Space Dyn**
  - **AE 424 Aerodyn I**
  - **AE 514 Fld Dyn & Ctrl**
  - **AE 524 Aerodyn II**
  - **EE 607 Circuits**

- **Fit Dyn & Control**
  - **ME 398 Thermo**
  - **AE 424 Fund Fit**

- **Structures**
  - **AE 223 Statics**
  - **AE 333 Mech Mat**
  - **AE 525 Fld Shrd I**
  - **AE 625 Fld Shrd II**

- **Tech Elect**
  - **EE 282 Circuits**
  - **AE 525 Exp Methods**
  - **AE 528 Design I**
  - **AE 628 Design II**
  - **EE 502 Propulsion I**
  - **EE 514 Control Sys**
  - **Tech Elect**
  - **Tech Elect**
  - **Tech Elect**
  - **Tech Elect**

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