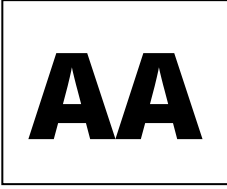


This resource is for ENGRUD students who entered the UW in AUT22 or later.



**Aeronautics & Astronautics  
Graduation Requirements**  
University of Washington  
<http://aa.washington.edu>

**ENGRUD Requirement Sheet – Key:**

◆ = Placement Requirements;

★ = *Pick one to satisfy placement requirement*

Placement: July 1 at the end of the first year

◆ **E-FIG: ENGR 101 and GEN ST 199 (2cr)**

**Mathematics (24cr)**

◆ **MATH 124, 125, 126 - Calc w/ Analytic Geom. I-III (15cr)**

MATH 207 - Intro to Differential Equations (3cr)  
[pr: MATH 125]

MATH 208 - Matrix Algebra with Applications (3cr)  
[pr: MATH 126]

MATH 224 - Advanced Multi-Variable Calculus (3cr)  
[pr: MATH 126 or MATH 136]

**Sciences (25cr)**

◆ **CHEM 142 - General Chemistry (5cr)**

★ **CHEM 152 - General Chemistry (5cr)**  
[pr: CHEM 142] OR Other Natural World (5cr)

◆ **PHYS 121 - Mechanics (5cr)**  
[pr: MATH 124 or MATH 134]

★ **PHYS 122 - Electromagnetism (5cr)**  
[pr: MATH 125 or MATH 134; PHYS 121]

★ **PHYS 123 - Waves (5cr)**  
[pr: MATH 126 or MATH 134; PHYS 122]

**Engineering General Education Requirements (29cr)**

**Written and Oral Communications:**

◆ **English Composition (5cr)**

**Areas of Inquiry:**

Arts & Humanities – A&H (10cr)

Social Sciences - SSc (10cr)

Additional A&H or SSc (4cr)

Diversity - DIV (3cr) - (may overlap with A&H or SSc)

**Engineering Fundamentals (20cr)**

A A 210 - Engineering Statics (4cr)  
[pr: MATH 126, PHYS 121]

A A 260 - Thermodynamics (4cr)  
[pr: CHEM 142; MATH 126; PHYS 121]

CEE 220 - Intro. to Mechanics of Materials (4cr)  
[pr: AA 210]

M E 230 - Kinematics and Dynamics (4cr)  
[pr: AA 210]

★ **AMATH 301 - Beginning Scientific Computing (4cr)**  
[pr: either MATH 125, Q SCI 292, or MATH 135]

**Departmental Core (54cr)**

A A 301 - Compressible Aerodynamics (4cr)

A A 302 - Incompressible Aerodynamics (4cr)

A A 310 - Orbital and Space Flight Mechanics (4cr)

A A 311 - Atmospheric Flight Mechanics (4cr)

A A 312 - Structural Vibrations (4cr)

A A 320 - Aerospace Instrumentation (3cr)

A A 321 - Aerospace Laboratory I (3cr)

A A 322 - Aerospace Laboratory II (3cr)

A A 331 - Aerospace Structures I (4cr)

A A 332 - Aerospace Structures II (4cr)

A A 395 - Undergraduate Seminar (1cr)

A A 410 & 411 - Aircraft Design I & II (4cr, 4cr)  
OR

A A 420 & 421 - Spacecraft Space Sys. Design I & II (4cr, 4cr)

A A 447 - Control in Aerospace Systems (4cr)

A A 460 - Propulsion (4cr)

**Senior Technical Electives (15cr)**

Any 400-level A A courses not used elsewhere in degree.

**Free Electives (~11cr)**

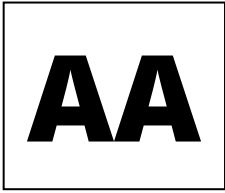
Additional coursework in any subject area not used elsewhere in degree.

**Total credits required for graduation: 180cr**

*Honors or accelerated sequences of chemistry, math and physics will satisfy the placement requirements. AMATH 351/352/353 may be alternatives to MATH 207/208/209, work with the department to confirm.*

Updated July 2022

This resource is for ENGRUD students who entered the UW in AUT22 or later.



**Aeronautics & Astronautics  
Sample Curriculum**  
University of Washington  
<http://aa.washington.edu>

**Aeronautics & Astronautics Advising**  
Office: 211 Guggenheim Hall, Box 352400  
Seattle, WA 98195-240  
Phone: (206) 616-1115  
Email: ugadvising@aa.washington.edu

This is a sample four-year plan for ENGRUD students that prepares them to be able to request placement at the end of the first year. It is intended to provide a framework for ENGRUD students to reference as they create their own individual academic plan.

Courses required to request placement for ENGRUD students: **ENGR 101; MATH 124, 125, 126; CHEM 142, PHYS 121, English Composition; ENGRUD students who are interested in AA should choose one of the following: AMATH 301, CHEM 152, PHYS 122, PHYS 123.**

**First Year**

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
◆ MATH 124 - Calc. w Analytic Geom I	5	◆ MATH 125 - Calc. w Analytic Geom II	5	◆ MATH 126 - Calc. w Analytic Geom III	5
◆ CHEM 142 - General Chemistry	5	★ CHEM 152 - General Chemistry	5	◆ PHYS 121 - Mechanics	5
A&H / SSc	5	◆ English Composition	5	A&H / SSc	5
◆ E-FIG: ENGR 101 & GEN ST 199	2				
Qtr. Total:	17	Qtr. Total:	15	Qtr. Total:	15

**Second Year**

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
MATH 207 - Intro to Differential Equations	3	MATH 208 - Matrix Algebra	3	A A 260 - Thermodynamics	4
PHYS 122 - Electromagnetism	5	PHYS 123 - Waves	5	CEE 220 - Intro to Mech. of Materials	4
A A 210 - Engineering Statics	4	ME 230 - Kinematics & Dynamics	4	MATH 224 - Multivariable Calculus	3
A&H / SSc	2	A&H / SSc	4	AMATH 301 - Beg Scientific Comp	4
Qtr. Total:	14	Qtr. Total:	16	Qtr. Total:	15

**Third Year**

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
A A 310 - Orbital & Space Flight Mech.	4	A A 302 - Incompressible Aerodynamics	4	A A 301 - Compressible Aerodynamics	4
A A 311 - Atmospheric Flight Mechanics	4	A A 312 - Structural Vibrations	4	A A 322 - Aerospace Lab II	3
A A 320 - Aerospace Instrumentation	3	A A 321 - Aerospace Lab I	3	A A 332 - Aerospace Structures II	4
A A 395 - Undergraduate Seminar	1	A A 331 - Aerospace Structures I	4	A A 447 - Control in Aerospace	4
A&H / SSc	3				
Qtr. Total:	15	Qtr. Total:	15	Qtr. Total:	15

**Fourth Year**

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
A A 460 - Propulsion	4	A A 410 or 420 - Capstone Design I	4	A A 411 or 421 - Capstone Design II	4
A A Technical Elective	3	A A Technical Elective	3	A A Technical Elective	3
A A Technical Elective	3	A A Technical Elective	3	A&H / SSc	5
Free Elective	4	Free Elective	4	Free Elective	3
Qtr. Total:	14	Qtr. Total:	14	Qtr. Total:	15

◆ = Placement Requirement

★ = Pick **one** to satisfy placement requirements

Honors or accelerated sequences of chemistry, math and physics will satisfy the placement requirements. AMATH 351/352/353 may be alternatives to MATH 207/208/209, work with the department to confirm.

Updated July 2022