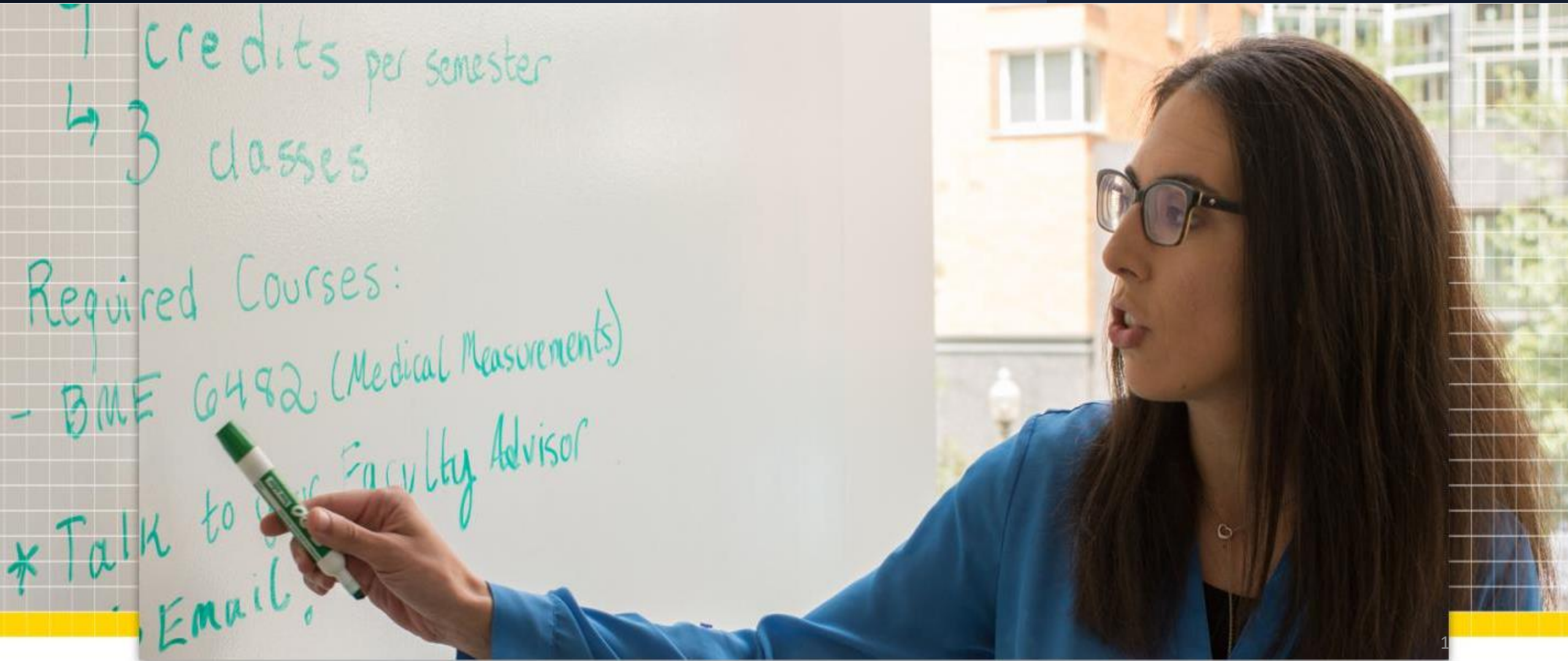


First Year Advising and Course Planning Guidebook | Summer 2023

School of Engineering
& Applied Science

THE GEORGE WASHINGTON UNIVERSITY



Introduction and Overview

Welcome to the School of Engineering and Applied Science (SEAS)!

All first-year SEAS students will register on **Tuesday, July 18, 2023**, for all fall courses in advance of general registration. This will help ensure that you can get into all your required courses. In order to prepare for your registration day you must complete three (3) schedules using the "Plan Ahead" tool in the GWeb Registration system by Sunday, July 2, 2023.

The SEAS First Year Advising and Course Registration Guide will help you create these schedules based on your academic plans. However, it is important to complete your online GW/SEAS Orientation module before developing your schedule.

General Expectations

- You may not get into preferred sections of courses and need to remain as flexible as possible and have back-up options ready.
- When it comes to electives it is good to have back-up options in case space is not available.
- During registration, we will help with any issues or concerns that come up (especially for required courses); however, it is very important to remain calm and patient throughout any scenario.

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Choosing Your Major

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FIRST SEMESTER RECOMMENDED COURSES

Applied Science + Technology (AST) Major

As an Applied Science + Technology student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a	General Chemistry 1	4
MATH 1231 ^b	Single Variable Calculus 1	3
HSSNT Elective 1	Humanities, Social Science, + Non-Technical Electives	3
HSSNT Elective 2 ^c	Humanities, Social Science, + Non-Technical Electives	3
SEAS 1001	Engineering Orientation	1
EMSE 1001	Intro to Systems Engineering	1
	TOTAL	15

IMPORTANT CONSIDERATIONS

Applied Science + Technology (AST) Major

- (a)** All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.
- (b)** All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.
- (c)** Most Applied Science + Technology students will take a second Humanities, Social Science or Non-Technical elective course in lieu of UW 1020 during the first semester due to the Writing Program planned capacity (50% for Fall/ 50% for Spring). However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Biomedical Engineering (BME) Major

As a Biomedical Engineering student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a	General Chemistry 1	4
BISC 1111	Intro to Biology with Lab: Cells and Molecules	4
MATH 1231 ^b	Single Variable Calculus 1	3
UW 1020 ^c	University Writing	4
SEAS 1001	Engineering Orientation	1
BME 1010	Intro to Biomedical Engineering	1
	TOTAL	17

IMPORTANT CONSIDERATIONS

Biomedical Engineering (BME) Major

(a) All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.

(b) All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.

(c) All Biomedical Engineering students should take UW 1020 during the first semester. However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Civil Engineering (CE) Major

As a Civil Engineering student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a	General Chemistry 1	4
HSSNT Elective 1	Humanities, Social Science, + Non-Technical Electives	3
MATH 1231 ^b	Single Variable Calculus 1	3
HSSNT Elective 2 ^c	Humanities, Social Science, + Non-Technical Electives	3
SEAS 1001	Engineering Orientation	1
CE 1010	Intro to Civil & Environmental Engineering	1
	TOTAL	15

IMPORTANT CONSIDERATIONS

Civil Engineering (CE) Major

- (a)** All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.
- (b)** All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.
- (c)** Most Civil Engineering students will take a second Humanities, Social Science or Non-Technical elective course in lieu of UW 1020 during the first semester due to the Writing Program planned capacity (50% for Fall/ 50% for Spring). However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Computer Engineering (CompE) Major

As a Computer Engineering student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a	General Chemistry 1	4
MATH 1231 ^b	Single Variable Calculus 1	3
HSSNT Elective 1	Humanities, Social Science, + Non-Technical Electives	3
UW 1020 ^c	University Writing	4
SEAS 1001	Engineering Orientation	1
ECE 1010	Intro to Computer and Electrical Engineering	1
	TOTAL	15

IMPORTANT CONSIDERATIONS

Computer Engineering (CompE) Major

- (a)** All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.
- (b)** All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.
- (c)** All Computer Engineering students should take UW 1020 during the first semester. However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Computer Science (CS) Major

As an Computer Science student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CSCI 1111 ^a	Intro to Software Development	3
MATH 1231 ^b	Single Variable Calculus 1	3
HSSNT Elective 1	Humanities, Social Science, + Non-Technical Electives	3
HSSNT Elective 2 ^c	Humanities, Social Science, + Non-Technical Electives	3
SEAS 1001	Engineering Orientation	1
CSCI 1010	Computer Science Orientation	1
	TOTAL	14

IMPORTANT CONSIDERATIONS

Computer Science (CS) Major

- (a)** All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.
- (b)** All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.
- (c)** Most Computer Science students will take a second Humanities, Social Science or Non-Technical elective course in lieu of UW 1020 during the first semester due to the Writing Program planned capacity (50% for Fall/ 50% for Spring). However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Electrical Engineering (EE) Major

As an Electrical Engineering student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a	General Chemistry 1	4
MATH 1231 ^b	Single Variable Calculus 1	3
HSSNT Elective 1	Humanities, Social Science, + Non-Technical Electives	3
HSSNT Elective 2 ^c	Humanities, Social Science, + Non-Technical Electives	3
SEAS 1001	Engineering Orientation	1
ECE 1010	Intro to Computer and Electrical Engineering	1
	TOTAL	15

IMPORTANT CONSIDERATIONS

Electrical Engineering (EE) Major

- (a)** All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.
- (b)** All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.
- (c)** Most Electrical Engineering students will take a second Humanities, Social Science or Non-Technical elective course in lieu of UW 1020 during the first semester due to the Writing Program planned capacity (50% for Fall/ 50% for Spring). However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Mechanical Engineering (MAE) Major

As a Mechanical Engineering student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a	General Chemistry 1	4
HSSNT Elective 1	Humanities, Social Science, + Non-Technical Electives	3
MATH 1231 ^b	Single Variable Calculus 1	3
UW 1020 ^c	University Writing	4
SEAS 1001	Engineering Orientation	1
MAE 1001	Intro to Mechanical and Aerospace Engineering	1
	TOTAL	16

IMPORTANT CONSIDERATIONS

Mechanical Engineering (MAE) Major

(a) All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.

(b) All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.

(c) All Mechanical Engineering students should take UW 1020 during the first semester. However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Systems Engineering (SE) Major

As a Systems Engineering student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a or BISC 1111	General Chemistry 1 or Intro to Biology with Lab	4
CSCI 1012	Intro to Programming with Python	3
MATH 1231 ^b	Single Variable Calculus 1	3
HSSNT Elective 1 ^c	Humanities, Social Science, + Non-Technical Electives	3
SEAS 1001	Engineering Orientation	1
EMSE 1001	Intro to Systems Engineering	1
	TOTAL	16

IMPORTANT CONSIDERATIONS

Systems Engineering (EE) Major

(a) All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.

(b) All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.

(c) Most System Engineering students will take a Humanities, Social Science or Non-Technical elective course in lieu of UW 1020 during the first semester due to the Writing Program planned capacity (50% for Fall/ 50% for Spring). However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

FIRST SEMESTER RECOMMENDED COURSES

Engineering - Undeclared (UND) Major

As a Engineering – Undeclared student, you need to take the following courses during your first semester. This may change based on AP/IB credit, transfer credits, math placement score, and/or your chemistry placement exam score.

COURSE	TITLE	CREDITS
CHEM 1111 ^a	General Chemistry 1	4
HSSNT Elective 1	Humanities, Social Science, + Non-Technical Electives	3
MATH 1231 ^b	Single Variable Calculus 1	3
UW 1020 ^c	University Writing	4
SEAS 1001	Engineering Orientation	1
APSC 1001	Intro to Engineering for Undeclared	1
	TOTAL	16

IMPORTANT CONSIDERATIONS

Engineering – Undeclared (UND) Major

(a) All SEAS students needing to take CHEM 1111 will need to complete the ALEKS Chemistry Prep Course and receive a 95 or better.

(b) All SEAS students need to take Math during their first semester, and must complete the ALEKS Math Placement Test and receive a score of 61 or greater. Those with a score of a 61-75 must take MATH 1220 and those with a score of 76 or higher will take MATH 1232.

(c) All Engineering-Undeclared students should take UW 1020 during the first semester. However, students in the University Honors Program will take HONR 1015 in lieu of UW 1020, and will be allowed to do so in the Fall. Also, students whose TOEFL score requires them to take EAP 1015 will be required to take this course prior to taking UW 1020 and thus will register for this course in the Fall.

Selecting Your Math Course

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Math Requirement

Foundation for Engineering and Computer Science

Mathematics is the foundation for all majors in SEAS and a pre-requisite for a number of courses throughout the curriculum.

Having a strong foundation is key to success and will help set you on a strong path. Thus, spending time using the ALEKS modules to refresh and place into the correct course is key!

ALEKS Math Placement Test (MPT)

For more information about the test and to take your test, visit:

<https://math.columbian.gwu.edu/aleks-math-placement-test>

Each SEAS student, regardless of AP/IB test scores or dual enrollment transfer courses, should complete the **initial** ALEKS Math Placement Test by **Sunday, June 11, 2023**.

All **final** test scores must be received by **Sunday, July 16, 2023** in order to register for either MATH 1220 or MATH 1231 and/or ECON 1011 on your SEAS First Year Registration Day.

In addition, all students will be required to sit for a proctored version of the ALEKS Math Placement Test on **Sunday, August 20, 2023** to confirm your placement in either MATH 1220 or MATH 1231 .

Math Requirement

Major	Required MATH Courses
Applied Science + Technology	MATH 1231*, MATH 1232
Biomedical Engineering	MATH 1231*, MATH 1232, MATH 2233
Civil Engineering	MATH 1231*, MATH 1232, MATH 2233
Computer Engineering	MATH 1231*, MATH 1232, MATH 2233
Computer Science (BS)	MATH 1231*, MATH 1232 or MATH 2184 (linear option)
Computer Science (BA)	[MATH 1220 and MATH 1221] or [MATH 1231 and Elective]
Electrical Engineering	MATH 1231*, MATH 1232, MATH 2233
Mechanical Engineering	MATH 1231*, MATH 1232, MATH 2233, MATH 2184
Systems Engineering	MATH 1231*, MATH 1232, MATH 2233

*Students who place into MATH 1220 will take MATH 1220 and MATH 1221 in lieu of MATH 1231.

Selecting Your Science Course

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Science Requirement

The Science Requirement varies by major, and details can be found in the University Bulletin – School of Engineering and Applied Science Undergraduate Majors:

<http://bulletin.gwu.edu/engineering-applied-science/#undergraduatetext>

ALEKS Chemistry Prep Course (CPC)

For more information about the course and to complete your knowledge check, visit:

<https://chemistry.columbia.gwu.edu/aleks-chemistry-prep-course>

Any student planning to take CHEM 1111 must complete the ALEKS Chemistry Prep Course and receive the necessary score to register. As a SEAS student, you should complete your **initial** test by **Sunday, June 11, 2023**.

All **final** test scores must be received by **Sunday, July 16, 2023** in order to register for either CHEM 1110 or CHEM 1111.

Science Prerequisites - CHEM

Prerequisites vary by courses and it important to review them before planning your schedule:

Course	Prerequisites
CHEM 1110	Requires ALEKS CPC Scores between 10 – 94; this course will not apply towards degree requirements but will provide a strong foundation to complete CHEM 1111.
CHEM 1111	Requires ALEKS CPC Scores between 95-100
CHEM 1112	Requires completion of CHEM 1111

Science Prerequisites - BISC

Prerequisites vary by course and it important to review them before planning your schedule:

Course	Prerequisites
BISC 1111	No prerequisite; Only offered in Fall
BISC 1112	No prerequisite; Only offered in Spring

Science Prerequisites - PHYS

Prerequisites vary by course and it important to review them before planning your schedule:

Course	Prerequisites
PHYS 1021	Requires completion of MATH 1220, MATH 1221, or MATH 1231; Credit cannot be earned for this course and <u>PHYS 1025</u> .
PHYS 1022	Requires completion of PHYS 1021 or PHYS 1025 and MATH 1232. Credit cannot be earned for this course and <u>PHYS 1026</u> .
PHYS 1025	Requires completion of MATH 1220, MATH 1221, or MATH 1231; Credit cannot be earned for this course and <u>PHYS 1021</u> . NOTE: Designed for Biomedical Engineering students.
PHYS 1026	Requires completion of PHYS 1021 or PHYS 1025 and MATH 1232. Credit cannot be earned for this course and <u>PHYS 1022</u> . NOTE: Designed for Biomedical Engineering students.

Science Requirement

Applied Science + Technology - All students will need to complete all of the following introductory science courses before graduation:

- CHEM 1111 + CHEM 1112
- BISC 1111 + BISC 1112
- [PHYS 1021 + PHYS 1022] or [PHYS 1021 + PHYS 1022]

Science Requirement

Biomedical Engineering - All students will need to complete all of the following introductory science courses before graduation:

- CHEM 1111 + CHEM 1112
- BISC 1111 + BISC 1112
- PHYS 1025 + PHYS 1026

Science Requirement

Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering - All students will need to complete all of the following introductory science courses before graduation:

- CHEM 1111
- PHYS 1021 + PHYS 1022

Science Requirement

Computer Science (BS/BA*) - All students will need to complete **two** of the following introductory science courses before graduation:

- CHEM 1111
- CHEM 1112
- BISC 1111
- BISC 1112
- PHYS 1021
- PHYS 1022

NOTE: You do not need to complete the pair. For example: You can complete CHEM 1111 and PHYS 1021 to satisfy the science requirement.

*Additional science course options are available to satisfy a Bachelor of Arts in Computer Science. However, these courses do not apply towards the Bachelor of Science. Therefore, it's strongly advised you take one course from those above, as this will give the most flexibility as you continue your college career.

First Semester Computer Science Course

Introduction to Software Development

Incoming Computer Science students must take CSCI 1111 in lieu of a separate Science course requirement.

- Students with both AP credit for CSCI 1111 and MATH 1231 can take CSCI 1112.
- Students with AP credit for MATH 1231 can take CSCI 1311 in lieu of HSSNT elective.
- ***Advisory Note:*** Students with strong math and computer science backgrounds should consider starting in the traditional sequence and retaking all courses to ensure a strong foundation.

Science Requirement

Systems Engineering - All students will need to complete all of the following introductory science courses before graduation:

- CHEM 1111 or BISC 1111 or BISC 1112
- PHYS 1021 + PHYS 1022

Understanding the University General Education Requirements

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University General Education Requirements

For SEAS students

The **University General Education (UGE)** curriculum trains students to engage in active intellectual inquiry across a variety of disciplines by developing a range of analytical skills, including critical thinking, quantitative reasoning, and scientific reasoning, and proficiency in written and oral communication.

A number of requirements are satisfied by completing the required curriculum for your major. However, some need to be selected from specific lists to ensure they are satisfied. These scenarios will be better described in the section follow this slide.

University General Education (UGE) Requirements

UGE Requirement	How will it be satisfied in SEAS?
One course in quantitative reasoning (must be in mathematics or statistics).	<ul style="list-style-type: none"> • MATH 1221 Calculus with Precalculus II • MATH 1231 Single-Variable Calculus I • MATH 1232 Single-Variable Calculus II • MATH 2233 Multivariable Calculus
One course in scientific reasoning (must be in natural and/or physical laboratory sciences).	<ul style="list-style-type: none"> • BISC 1111 Introductory Biology: Cells and Molecules • BISC 1112 Introductory Biology: The Biology of Organisms • CHEM 1111 General Chemistry I • CHEM 1112 General Chemistry II • PHYS 1021 University Physics I • PHYS 1022 University Physics II • PHYS 1025 University Physics I with Biological Applications • PHYS 1026 University Physics II with Biological Applications

University General Education (UGE) Requirements

UGE Requirement	How will it be satisfied in SEAS?
UW 1020 University Writing	All majors require UW 1020 to be taken
One course that has an approved oral communication component.	BS Degrees: BME 4925W, CE 4342, CSCI 4244, ECE 4925W EMSE 4191, and MAE 4152W BA Degrees: Must complete a course from with the University General Education Oral Communication List

University General Education (UGE) Requirements

UGE Requirement	How will it be satisfied in SEAS?
Two courses in critical thinking, quantitative reasoning, or scientific reasoning in the social sciences.	Course must be from the respective list here: https://advising.columbian.gwu.edu/gpac-course-list
One course in critical thinking in the humanities.	Course must be from the respective list here: https://advising.columbian.gwu.edu/gpac-course-list

Understanding the University Writing and WID Requirement

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University Writing

- All GW students must complete UW 1020 in their first year
- Students in the University Honors Program will complete HONR 1015 in lieu of UW 1020
- Some students will be notified by GW Undergraduate Admissions that they must take EAP 1015 before completing UW 1020
 - Note: EAP 1015 can be applied towards the SEAS Humanities, Social Science, Non-Technical (HSSNT) requirement as an Additional SEAS HSSNT elective if applicable.
- For more information about the First Year Writing Requirement, visit: <https://writingprogram.gwu.edu/first-year-writing>

University Writing

A quick reminder of who takes UW in Fall versus Spring in SEAS:

<i>The following majors take UW 1020 in the fall and needs to complete this section:</i>	<i>The following majors complete UW 1020 in the spring semester</i>
<ul style="list-style-type: none"><input type="checkbox"/> Biomedical Engineering<input type="checkbox"/> Civil Engineering – Environment<input type="checkbox"/> Computer Engineering<input type="checkbox"/> Engineering – Undeclared<input type="checkbox"/> Mechanical Engineering – All options<input type="checkbox"/> System Engineering	<ul style="list-style-type: none"><input type="checkbox"/> Applied Science + Technology<input type="checkbox"/> Civil Engineering - General<input type="checkbox"/> Computer Engineering<input type="checkbox"/> Computer Science<input type="checkbox"/> Electrical Engineering – All options

Choosing a UW 1020

- Consider the topics related to your interests. To view the course topics, visit: <https://writingprogram.gwu.edu/uw-course-descriptions>
- Consider how each UW 1020 section fits in your schedule
- It is recommended you find **at least 5 sections** of UW 1020 that work in your schedule as these classes are intentionally small and have a limited number of seats

Writing in the Discipline (WID)

- For more information about WID Policies, visit:
<https://writingprogram.gwu.edu/writing-disciplines>
- You must complete UW 1020 before taking any WID courses
- You should review all policies in order to best understand the requirements and limitations.
- WID courses are taken later in your curriculum and the following slide reviews this information in more detail for future reference.

University General Education (UGE) Requirements - Writing in Discipline (WID)

Major	Required WID Courses
Applied Science + Technology	EMSE 3740W and CE 4330W
Biomedical Engineering	BME 4920W and BME 4925W
Civil Engineering	CE 3110W + CE 3111W + NEED TO TAKE ONE MORE WID COURSE*
Computer Engineering	ECE 4920W and ECE 4925W
Computer Science (BS)	CSCI 2541W and CSCI 4243W
Computer Science (BA)	CSCI 2441W + NEED TO TAKE ONE MORE WID COURSE*
Electrical Engineering	ECE 4920W and ECE 4925W
Mechanical Engineering	MAE 3166W and MAE 4152W
Systems Engineering	EMSE 3740W and EMSE 3855W (STAT 2183W)

*Must complete at least 6-credits of WID coursework to graduate; This major requires an additional course to be selected to satisfy this requirement.

Choosing Your UGE Social Science, UGE Humanities, and/or SEAS Non-Technical Elective Courses

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University General Education Requirements for Humanities and Social Science Electives

And the SEAS Non-Technical Electives Requirements

- All SEAS students must satisfy the University General Education (UGE) Requirements for Humanities and Social Science
 - One UGE – Humanities elective course
 - Two UGE – Social Sciences elective course
- The UGE Humanities and Social Science requirements are integrated into part of the SEAS Non-Technical Elective requirements.

Humanities, Social Science, and Non-Technical Elective & University General Education Requirements

Major	UGE/HSSNT Requirement
Applied Science + Technology	One UGE-Humanities elective; One UGE-Social Science elective; COMM 1040 or COMM 1041; One additional SEAS HSSNT elective; One Arts elective; and Two Literature electives
Biomedical Engineering	One UGE-Humanities; Two UGE-Social Science electives; PHIL 2135; and Two additional SEAS HSSNT electives
Civil Engineering	One UGE-Humanities; Two UGE-Social Science electives; and Three additional SEAS HSSNT electives
Computer Engineering	One UGE-Humanities; Two UGE-Social Science electives; PHIL 2135; and One additional SEAS HSSNT elective
Computer Science (BS)	One UGE-Humanities; Two UGE-Social Science electives; and Three additional SEAS HSSNT electives

Humanities, Social Science, and Non-Technical Elective & University General Education Requirements

Major	UGE/HSSNT Requirement
Computer Science (BA)	One UGE-Humanities elective; Two UGE-Social Science electives; One Arts elective; Two Global or Cross-Cultural electives; and Three additional SEAS Humanities electives
Electrical Engineering	One UGE-Humanities; Two UGE-Social Science electives; PHIL 2135; and One additional SEAS HSSNT elective
Mechanical Engineering	One UGE-Humanities; Two UGE-Social Science electives; PHIL 2135; and Two additional SEAS HSSNT electives
Systems Engineering	One UGE-Humanities elective; ECON 1011; COMM 1040 or COMM 1041; and PHIL 2135

Choosing your Non-Technical Electives

- Since University General Education (UGE) humanities and social sciences electives are more flexible who choose to change their majors, it is strongly recommended that you choose from the respective UGE humanities and social science elective list when choosing a "HSSNT Elective" for their schedule.
- It is recommend that you choose **at least 5 elective courses** that fit within your schedules that satisfy HSSNT requirements.
 - Note: this courses do fill fast as all university students outside of SEAS are also trying to register
- Some SEAS majors will require additional non-technical electives and therefore taking a course from the pre-approved SEAS Non-Technical list is an option as well: <https://www.seas.gwu.edu/humanities-and-social-science-requirement>

Select UGE – Humanities

Course	Course Title
AH 1031	Survey of Art and Architecture I
AMST 2320	U.S. Media and Cultural History
AMST 2430	Capitalism and Culture
CAH 1031	Survey of Art and Architecture I
ENGL 1315	Literature and the Financial Imagination
ENGL 2100	Introduction to Asian American Studies through Literature
FREN 2006	Language, Culture, and Society II
GER 2091	Introduction to German Literature—in English I
GER 2161	German Culture—in English I

Select UGE – Humanities

Course	Course Title
HEBR 1001	Beginning Hebrew I
HIST 1011	World History, 1500-Present
HIST 1121	The War of Ideas in European and International History, 1750-Present
HIST 1310	Introduction to American History from the Pre-Columbian Era to 1877
HIST 1311	Introduction to American History since 1877
HIST 2010	Early American Cultural History
HIST 2320	U.S. Media and Cultural History
HIST 2322	U.S. History since 1945
HIST 2630	History of Korea

Select UGE – Humanities

Course	Course Title	Notes
PHIL 1051	Introduction to Philosophy	
PHIL 1153	The Meaning of Mind	
PHIL 2125	Philosophy of Race and Gender	
PHIL 2131	Ethics: Theory and Applications	
REL 1010/W	The New Testament	"W" is writing intensive
REL 2401	Islam	
SPAN 1095	The Spanish-Speaking World: Spain, Latin America, and the United States	
SPAN 2005	Advanced Spanish I	
SPAN 2006	Advanced Spanish II	

Select UGE – Humanities

Course	Course Title	Notes
SPAN 2026	Advanced Spanish for Heritage Learners	
SPAN 2156	Intensive Advanced Spanish for Heritage Learners	
SPAN 2500	The Spanish-Speaking World: Spain, Latin America, and the United States	

Select UGE – Social Sciences

Course	Course Title	Notes
ANTH 1002	Sociocultural Anthropology	
ANTH 1003	Archaeology	
ANTH 2008	Foundations of Anthropological Thought	Prerequisite: ANTH 1002
COMM 1025	Introduction to Communication Studies	
COMM 1040	Public Communication	
COMM 1041	Interpersonal Communication	
ECON 1011	Principles of Economics I	Requires a ALEKS score of 61 or higher
ECON 1012	Principles of Economics II	Prerequisite: ECON 1011
GEOG 1001	Introduction to Human Geography	

Select UGE – Social Sciences

Course	Course Title	Notes
HONR 2047	Self and Society Seminar	University Honors Program Students Only
PSC 1001	Introduction to Comparative Politics	
PSC 1002	Introduction to American Politics and Government	
PSC 1011	Introduction to Politics I	
PSYC 2011	Abnormal Psychology	Prerequisite: PSYC 1001
PSYC 2012	Social Psychology	Prerequisite: PSYC 1001
PSYC 2013	Developmental Psychology	Prerequisite: PSYC 1001
PSYC 2014	Cognitive Psychology	Prerequisite: PSYC 1001
PSYC 2015	Biological Psychology	Prerequisite: PSYC 1001

Select UGE – Social Sciences

Course	Course Title	Notes
SMPA 1050	Media in a Free Society	
SOC 1002	The Sociological Imagination	
SOC 2104	Contemporary Sociological Theory	Prerequisite: SOC 1001 or SOC 1002
SUST 1001	Introduction to Sustainability	

Select SEAS Non-Technical

Course	Course Title	Notes
PYSC 1001	General Psychology	
AMST 1050	Exploration of American Culture	
MUSIC 1103	Music in the Western World	
PHIL 2135	Ethics in Business and Professions	Several SEAS majors require this course.
SOC 1001	Introduction to Sociology	

Selecting and Registering for SEAS 1001 and Major-Specific Orientation Course for the Fall

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SEAS 1001 and DEPT 1010

Orientation Course for SEAS

Each student in SEAS will need to complete both SEAS 1001 and DEPT 1010 course based on their intended major.

- SEAS 1001 will meet the first 6 weeks of the semester and your DEPT 1010 will be remaining 8 weeks of the semester. ***These courses will appear to overlap in your calendar but do not.***
- When scheduling SEAS 1001 and DEPT 1010, it is recommended they overlap as much as possible, as this will give more scheduling freedom on Fridays. (Example: If your SEAS 1001 is in the morning, your BME 1010 should be in the morning as well)

SEAS 1001 and DEPT 1010

Major	Orientation Course 1	Orientation Course 2
Applied Science + Technology	SEAS 1001	EMSE 1001
Biomedical Engineering	SEAS 1001	BME 1010
Civil Engineering	SEAS 1001	CE 1010
Computer Engineering	SEAS 1001	ECE 1010
Computer Science (BS)	SEAS 1001	CSCI 1010
Computer Science (BA)	SEAS 1001	CSCI 1010
Electrical Engineering	SEAS 1001	ECE 1010
Mechanical Engineering	SEAS 1001	MAE 1001
Systems Engineering	SEAS 1001	EMSE 1001
Engineering - Undecided	SEAS 1001	APSC 1001

Understanding how AP/IB/Transfer Credits affect Your Fall Schedule

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AP/IB/A-Level and Transfer Credit

Bringing Credits to GW

- For more information about submitting your score or transcript and course equivalencies, visit: <https://undergraduate.admissions.gwu.edu/bringing-credits-gw>
- [AP/IB/A-Levels](#): Assuming there is no duplication of coursework, a maximum of 24 credits may be awarded on the basis of work completed while enrolled in high school through examinations such as AP/IB/A-Levels.
- It is recommended to **submit all scores/transfer credits** for courses completed prior to 2023 **by June 30, 2023** to help ensure timely processing.

Course Planning with Credits

Bringing Credits to GW

- Although a maximum of 24-credits of AP/IB/A-Level can apply to your degree, more credit can be transferred but will appear in "Not Counted" on DegreeMAP.
- Students who have more than 24-credits of AP/IB/A-Level should review this information with their advisor to help select which courses should apply.
- AP/IB/A-Level courses that are equivalent to courses within the University Education Equivalent are eligible to apply to these requirements.
- When planning, it is recommended only to use the equivalents that you have earned not the ones you expect to get. Of course you can have a version of your schedule for each scenario, but you should only register based on what is approved at the time.

Course Planning with Credits

Bringing Credits to GW

- When selecting your Humanities or Social Science courses, you should consider if you have any AP/IB/A-Level or transfer credits that apply towards this elective requirement for your specific major.
- When considering using AP/IB/A-Level or dual enrollment transfer credits in lieu of required courses for your major, it is strongly recommend to reflect on how prepared you are for the next level course and how integral this course is for your curriculum. Do not hesitate to discuss with your advisor.
- If you are pre-med/health, taking courses at the college-level may be required to ensure eligibility for future academic plans. Do not hesitate to consult GW Pre-Health Advising with questions.

Course Planning with Credits

Bringing Credits to GW: AP Examples

Required Course	AP Score	Advisor Recommendation
BISC 1111	AP Biology Score = 3 (no credits or equivalent transfer)	Need to take BISC 1111

Required Course	AP Score	Advisor Recommendation
BISC 1111	AP Biology Score = 5 (8-credits for BISC 1111 & BISC 1112)	Student can choose to apply these courses to degree requirements when applicable.

Required Course	AP Score	Advisor Recommendation
UW 1020	AP English Lang & Comp = 5 (3-credits for UW 1099)	Student cannot apply this towards UW 1020 requirement nor elective requirements in SEAS

Course Planning with Credits

Bringing Credits to GW: AP Examples Continued

Required Course	AP Score	Advisor Recommendation
ECON 1011	AP Microeconomics = 5 (3-credits for ECON 1011)	Student can apply this towards an University General Education Social Science as ECON 1011.

Required Course	AP Score	Advisor Recommendation
FA 1000-Level	AP Studio Art- 2D or 3D Design = 5 (3-credits for FA 1099)	Student can request consideration for this course to be applied toward non-University General Education elective credit.

Course Planning with Credits

Bringing Credits to GW: IB Examples

Required Course	IB Score	Advisor Recommendation
BISC 1111	IB Biology Score = 7 (8-credit for BISC 1099)	Student cannot apply this towards BISC 1099 credits towards their science requirement in SEAS.

Required Course	IB Score	Advisor Recommendation
SPAN 2005	IB Spanish B Score = 7 (6-credit for SPAN 2005 and SPAN 2006)	Student can apply this towards an University General Education Humanities requirement as SPAN 2005 and can request consideration for this course to be applied toward non-University General Education elective credit.

Course Planning with Credits

Bringing Credits to GW: A-Level Examples

Required Course	A-Level Score	Advisor Recommendation
BISC 1111	A-Level Biology Score = A (8-credits for BISC 1111 & BISC 1112)	Student can choose to apply these courses to degree requirements when applicable.

Required Course	A-Level Score	Advisor Recommendation
CHEM 1111	A-Level Chemistry Score = A (8-credits for CHEM 1099)	Student cannot apply this towards CHEM 1099 credits towards their science requirement in SEAS.

Required Course	A-Level Score	Advisor Recommendation
MUSC 1000-Level	A-Level Music Score = A (6-credits for MUSC 1099)	Student can request consideration for this course to be applied toward non-University General Education elective credit.

Understanding How Special Programs may affect Your Fall Schedule

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Special Programs

There are a variety of special programs and populations within GWU that might have additional course requirements that must be considered when building your schedules. The following slides include some of these programs and populations and general contact information.

University Honors Program

GW has specific advising resources for all University Honors Program students including SEAS students. Therefore, it is important to discuss your Honors Program advisor about building your schedule relative to an required courses or unique scheduling requirements.

University Honors Program
https://honorsprogram.gwu.edu/
uhp@gwu.edu

Pre-Professional Advising

GW has pre-professional advising for both Pre-Health and Pre-Law programs. These units have extensive resources on their websites as well as host number workshop throughout the summer and academic year.

Pre-Health Advising	Pre-Law Advising
https://prehealth.gwu.edu/	https://prelaw.gwu.edu/
prehealth@gwu.edu	prelaw@gwu.edu

Student Athlete Advising

GW has student athlete advising and academic support resources for all student athletes including SEAS students. Therefore, it is important to discuss with your student athlete advisor about building your schedule relative your unique scheduling requirements.

Student Athletes Academic Services
https://gwsports.com/sports/academic-services
Email by sport

Additional Special Programs and Populations

Major	Website	Contact Email
Clark Scholars	https://www.seas.gwu.edu/clark-engineering-scholars	seasadvising@gwu.edu
POSSE Scholars	https://studentsuccess.gwu.edu/scholar-cohorts	success@gwu.edu
ROTC (Reserve Officers' Training Corps)	https://nrotc.gwu.edu/	gwnrotc@gwu.edu
Stephen Joel Trachtenberg (SJT) Scholars	https://studentsuccess.gwu.edu/scholar-cohorts	success@gwu.edu
Women's Leadership Program (WLP)	https://wlp.gwu.edu/	wlp@gwu.edu