

UNIVERSITY OF WASHINGTON Pre-Engineering Transfer Information

This handout includes admission requirements to the University of Washington, information about the UW Engineering program admission requirements, and prerequisite courses offered at North Seattle College.

- Undergrad Engineering Advising office: For general questions or to set up an appointment, email or call the office at engradv@uw.edu or (206) 543-1770.
- Transfer Thursday information session: https://transfer.uw.edu/thursday/
- Prospective Engineering Transfer Student Information: https://www.engr.washington.edu/admission/transfer
- Engineering Departmental advising directory: https://www.engr.washington.edu/current/academics

Transfer Application Deadlines

To become an engineering student at the University of Washington, applicants must apply and be admitted to **both** the University and an Engineering Department (Engr Dept). The University application deadlines are before the College of Engineering application deadlines. Applicants need to apply to their Engineering Department(s) before they hear back from UW admissions about their acceptance to the university.

UW Admission website: http://admit.washington.edu/apply/transfer/

Application deadlines

Start Quarter	uw	Engr Dept	Majors admitting during the quarter
Autumn	Feb 15	Apr 5	Aeronautics & Astronautics Engineering Bioresource Science & Civil Engineering Computer Engineering Electrical & Computer Engineering Environmental Engineering Human Centered Design & Engineering Industrial & Systems Engineering Materials Science & Engineering Mechanical Engineering
Spring^	Dec 15	Jan 15 5pm PST	Bioengineering Bioresource Science & Engineering Chemical Engineering

^{*} As of Autumn 2024, Electrical & Computer Engineering (ECE) is the only Electrical Engineering undergraduate option. Autumn 2023 was the last admission cycle for Electrical Engineering (EE).

^International transfer students are only admitted for Autumn quarter, <u>unless</u> they are already in the US and meet department admission requirements for Bioengineering or Chemical Engineering.

College Academic Distribution Requirements (CADRs)

Admission to UW requires completion of CADRs <u>unless</u> applicants have earned 40 transferrable college quarter credits or more at the time of application. For more information, please go to http://admit.washington.edu/apply/transfer/cadr/

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Pre-Engineering Courses currently offered at NSC

Courses at NSC	Title at NSC	Transfer to UW as				
BIOL &211, 212, 213 (5, 5, 5)	Majors Cellular, Majors Animal, Majors Plant	BIOL 180, 200, 220 (5, 5, 5) if all three courses taken; otherwise, BIOL 2XX				
CHEM &161 (6)	General Chem. w/ Lab 1	CHEM 142 (5), 1XX (1)				
CHEM &162, 163 (6,6)	General Chem. w/ Lab 2, General Chem. w/ Lab 3	CHEM 152, 162 (5,5), 1XX (2) if both courses taken; otherwise, CHEM 1XX*				
CHEM &241 (4)	Organic Chem. 1	CHEM 237 (4)				
CHEM &242 (4)	Organic Chem. 2	CHEM 238 (4)				
CSC 142 (5)	Computer programming 1	CSE 142 (4), 1XX (1)				
CSC 143 (5)	Computer programming 2	CSE 143 (5)				
ENGL &101 (5)	English Composition 1	ENGL 131 (5)				
ENGL &235 (5)	Technical Writing	ENGR 231 (3), 2XX (2)				
ENGR &204 (5)	Electrical Circuits	EE 215 (4), 2XX (1)				
ENGR &214 (5)	Statics	AA 210 (4), 2XX (1)				
ENGR &215(5)	Dynamics	ME 230 (4), 2XX (1)				
ENGR &224 (5)	Thermodynamics	AA 260 (4), 2XX (1)				
ENGR &225 (5)	Mechanics of Materials	CEE 220 (4), 2XX (1)				
ENGR 240 (5)	Intro. to Numerical Methods	AMATH 301 (4), 2XX (1)				
MATH &151 (5)	Calculus 1	MATH 124 (5)				
MATH &152 (5)	Calculus 2	MATH 125 (5)				
MATH &163 (5)	Calculus 3	MATH 126 (5)				
MATH 220 (5)	Linear Algebra	MATH 208 (3), 2XX (2)				
MATH 224 (5)	Vector Calculus	MATH 224 (3), 2XX (2)				
MATH 238 (5)	Differential Equations	MATH 207 (3), 2XX (2)				
MSC 101 (5) – Currently not offered at NSC	Intro. to Materials Science	MSE 170 (4), 1XX (1)				
PHYS &221 (5)	Engineering Physics 1	PHYS 121 (5)				
PHYS &222 (5)	Engineering Physics 2	PHYS 122 (5)				
PHYS &223 (5)	Engineering Physics 3	PHYS 123 (5)				
PSYC 222 (5)	Survey of Physiological Psychology	PSYCH 202 (5)				

^{*}While CHEM&162 (without CHEM&163) will transfer to UW as Chemistry 1XX, students who complete both CHEM&161 and CHEM&162 at a Washington State Community College (including NSC) will satisfy the admission and graduation requirements for the CivE, EnvE, ISE, and ME departments. For more information, please go to: https://www.engr.washington.edu/admission/transfer For the MSE major, students should complete the entire sequence of CHEM&161, 162, and 163.

Minimum college level credits requirements:

Most engineering departments have a minimum college-level credit requirement, either before the university or the departmental application deadlines. In addition, most engineering departments have a minimum cumulative GPA and/or a minimum grade requirement in each prerequisite course. Please visit the Choosing a Major page or the department's website for more information.

Program abbreviations:

A&A	Aeronautics & Astronautics					
BioE	Bioengineering					
ChemE	Chemical Engineering					
CivE	Civil Engineering					
CompE	Computer Engineering					
ECE	Electrical & Computer Engineering					

EnvE ISE	Environmental Engineering Industrial & Systems Engineering
ME	Mechanical Engineering
MSE	Materials Science & Engineering
BSE	Bioresource Science and Engineering
HCDE	Human Centered Design & Engineering

Departmental Admission Requirements (Courses offered at NSC)

The following is a summary of the courses offered at NSC that are required for application to engineering programs. Science sequences should be completed at the same college, or the sequence may not count upon transfer. Always verify prerequisite coursework, as it is subject to change.

Subjects	A&A	Bio E	Chem E ⁺	Civ E	ECE	Env E	ISE	ME	MSE	BSE	HCDE
Mathematics											
MATH &151,	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	A*
&152, &163											
MATH 220	E		В	E	E-2	R	R	R	R	Е	
MATH 224	E*				E-2						
MATH 238	E	R*	B*	R	E	Е	R	R	E	E	
Natural Science											
BIOL		E-1			E-2	E-1					A*
CHEM &161	Α	Α	Α	Α	E-2	Α	Α	Α	Α	Α	A*
CHEM &162		Α	Α	R		Α	E	Е	Α	Α	
CHEM &163		Α	B*						R**	Α	
CHEM &241		Е	В							E	A*
CHEM &242			В							E	
PHYS &221	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	A*
PHYS &222	Α	E	B*	Α	Α	E	Α	Α	Α	Е	
PHYS &223	E	С	В	R	E-2		E	E	R	Е	
Written and Ora	al Commu	nication									
ENGL &101	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
ENGL &235									R	++	
Engineering Fur	ndamenta	ls									
ENGR 240	E	E**		E**		E**			E**		
CSC 142		E**		E**	Α	E**	R		E**		Α
CSC 143					E						
MSC 101^									E-3		
ENGR &204											
ENGR &214	Α			Α		Α	Α	Α	R		
ENGR &215	E			E			E***	Е			
ENGR &225	Е			E			E***	Е	R		
ENGR&224	E					R				E	

- A: Application Requirements Must be completed by the departmental application deadline.
- A*: HCDE Application requirements, see next page for complete information.
- **E:** Enrollment Requirements Must be completed by the start of the first quarter in the major.
- E*: One of these courses may be taken in the first quarter in the program (Fall quarter).
- E**: Either ENGR240 or CSC142 is required before enrollment in the department. CivE and EnvE prefer ENGR240.
- E***: While either ENGR&215 or ENGR&225 is required before enrollment in the department, it is highly recommended to complete both before enrollment in the department.
- **E-1:** BIOL& 160 or BIOL& 211 must be completed by the start of the first quarter. Contact your advisor to see which best fits your education plan. (Bio Engineering prefers BIOL& 211).
- **E-2:** Complete two courses from BIOL& 213, CHEM&161, MATH224, MATH 220, or PHYS&223. For the Neural Engineering pathway, complete the whole sequence of BIOL&211, 212, 213 and UW's BIOL130 (Introduction to Neuroscience, NOT offered at NSC).
- E-3: Applicants without MSC101 completed are eligible to apply but will be required to complete it in the first quarter of the program.
- R: Strongly recommended to complete before enrollment into the department. ISE: Without MATH220, MATH238, and CSC142, transfer students will not be able to start their junior year sequence of ISE courses. ME also recommends ME123 and INDE315, which are not offered at NSC.
- R*: Strongly recommended to have completed or in progress at the time of application.
- R**: Complete CHEM&163 before enrollment in the department, or CHEM&162 and CHEM&163 won't transfer properly to the MSE major.
- **B:** Must be completed BEFORE the start of the Fall quarter following admission.
- **B*:** Must be completed BEFORE the start of the Spring quarter following admission.
- **C:** For pre-med students PHYS&223 is recommended to complete before enrollment in the department.
- +: Chem E only: Up to two application requirements may be in progress at the time of application.
- ++: BSE only: BSE requires ENGL&235 and ECON&201 to graduate from the major.
- ^: MSC101 (Intro. To Materials Science) is not currently offered at NSC.

A*: Human Centered Design & Engineering (HCDE) These are Application Requirements. All courses must be completed by the departmental application deadline.

- MATH&142 and 151, or two courses from MATH&151, &152, &163 (<u>MATH& 142 will not be an eligible prerequisite for Autumn 2026 or later admission</u>)
- MATH&146, MATH211, or BUS 210
- Three courses from CHEM&161, 162*, 163*, PHYS&114 or PHYS&221, PHYS&115 or PHYS&222, PHYS&116 or PHYS&223, BIOL&211**, 212**, 213**, BIOL128 or BIOL&241***, PSYC222 (PHY&114/115/116 and PSYC 222 will not eligible prerequisites for Autumn 2026 or later admission)
- ENGL&101
- CSC142
- *CHEM&162 without CHEM&163 transfers to UW as CHEM1XX. However, the HCDE major allows CHEM&162 without CHEM&163 as an application requirement. Please note: You won't be able to take UW courses that require UW's CHEM152 (general chemistry 2) as a prerequisite.
- **Unless all three courses (BIOL&211, 212, and 213) are completed, these courses transfer to UW as BIOL2XX. However, the HCDE major allows any single or combination of these courses as application requirement(s).
- ***BIOL&241 without BIOL&242 transfers to UW as BIOL2XX. However, the HCDE major allows BIOL&241 without BIOL&242 as an application requirement.

If you are NOT completing a whole sequence of [CHEM&161, 162, 163], [BIOL&211, 212, 213], or [BIOL&241, 242], please email the HCDE undergraduate advising department at what@uw.edu after submitting your HCDE departmental application before the HCDE application deadline.

Other useful websites and contact information

Course equivalency guide

https://admit.washington.edu/apply/transfer/equivalency-guide/

Engineering transfer student admission

https://www.engr.washington.edu/admission/transfer

Explore UW Engineering Departments

https://www.engr.washington.edu/explore-uw-engineering-departments

Explore what areas Engineering majors impact

https://www.engr.washington.edu/students/areas-impact

Minority Scholars Engineering Program (MSEP)

https://www.engr.washington.edu/current/studentprogs/msep

Women in Engineers Rise (WE Rise)

https://www.engr.washington.edu/current/studentprogs/women-engineers-rise

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