

# **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 of Washington **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 Bioresource Science & Engr Civil Engr Computer Engr Electrical & Computer Engr* Environmental Engr Human Centered Design & Engr Industrial & Systems Engr Materials Science & Engr Mechanical Engr					
Spring^	Dec 15	Jan 15 5pm PST	Bioengineering Bioresource Science & Engr Chemical Engr Computer Engr					

<sup>\*</sup> 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 (beginning with Winter 2023 applicants). For more information, please go to <a href="http://admit.washington.edu/apply/transfer/cadr/">http://admit.washington.edu/apply/transfer/cadr/</a>

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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)					

<sup>\*</sup>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: <a href="https://www.engr.washington.edu/admission/transfer">https://www.engr.washington.edu/admission/transfer</a> For the MSE major, students should complete the entire sequence of CHEM&161, 162, and 163.

#### Minimum college level credits requirements:

Most of the engineering departments have a minimum college level credits requirement either before the University or the departmental application deadlines. In addition, most of the engineering departments have a minimum cumulative GPA and/or a minimum grade requirement in each prerequisite course. For more information, please go to the Academic Planning Worksheets or the department's website.

## **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** 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	CompE	ECE	Env E	ISE	ME	MSE	BSE
Mathematics											
MATH &151,	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
&152, &163											
MATH 220	E		В	E			R	R	R	R	E
MATH 224	E*					E-2					
MATH 238	E	R*	Α	R		E	E	R	R	E	E
Natural Science											
BIOL		E-1				E-2	E-3				
CHEM &161	Α	Α	Α	Α		E-2	Α	Α	Α	Α	Α
CHEM &162		Α	Α	R			Α	E	E	Α	Α
CHEM &163		Α	Α				E			R**	Α
CHEM &241		E	В								E
CHEM &242			В								E
PHYS &221	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
PHYS &222	Α	E	Α	Α		Α	Α	Α	Α	Α	E
PHYS &223	E	С	В	R		E-2	E	E	Е	R	E
Written and Oral	Commun	ication									
ENGL &101	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
ENGL &235										R	++
Engineering Fund	lamentals										
ENGR 240	E*	E	B*	E**			E**		R	E**	
CSC 142			B*	E**		Α	E**	R		E**	
CSC 143					Α	E					
MSC 101^								R	R	E-4	
ENGR &204								R	R		
ENGR &214	Α			Α			Α	Α	Α	R	
ENGR &215	E			E				E***	Е		
ENGR &225	E			E			E	E***	E	R	
ENGR&224	E						E				E

- A: Application Requirements Must be completed by the departmental application deadline.
- 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: It is highly recommended to complete BIOL&211, BIOL&212, and 213 before enrollment in the department. Students who are not planning to complete all these courses are encouraged to contact the BioE department before applying to the major.
- E-2: Complete two courses from CHEM&161, MATH224, 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: A BIOL course is required before enrollment in the department. Please contact the EnvE department to identify an appropriate BIOL course.
- E-4: 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\*: Either ENGR 240 or CSC 142 must be completed BEFORE the start of the Fall quarter following admission.
- $\hbox{C: For pre-med students--PHYS\&223 is recommended to complete before enrollment in the department.}\\$
- +: 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.

#### **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
- MATH&146 or MATH211
- 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\*\*, BIOL&241\*\*\*, PSYC222
- 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 <a href="https://www.edu">what@uw.edu</a> 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

Always verify information, as it is subject to change.

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