

## Pathway: Bio/Chemical Engineering

### Area of Study: Science, Technology, Engineering, and Math



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#### Overview

This pathway meets requirements for the Associate of Science Track 2 (AS Track 2) degree with a concentration in Bio/Chemical Engineering. Completion of this degree opens doors to a variety of careers in sectors including research and design, business, government, and industries in Bio/Chemical Engineering fields. (Read program QR code to see more)

#### Estimated Length of Completion

Degree: Associate of Science - Transfer, Track 2 (PHST2AS)  
8 quarters, Full time

#### Career Opportunities

A Bio/Chemical Engineering pathway can lead to various career opportunities. Examples include:

##### Bio Engineering

- Biomedical
- Biochemical
- Biological Systems
- Bioprocess
- Biotechnology
- Biomechanical
- Environmental Health

##### Chemical Engineering

- Plant Design and Operation
- Safety and Hazard Assessment ... (Read program QR code to see more)



#### Future Education

Once you complete this associates degree, additional education opportunities include, but are not limited to:

- A Bachelor's degree in Engineering, or a related field at a four-year college or university.

North Seattle College has direct transfer agreements with four-year institutions throughout Washington state, including the University of Washington, Washington State University and Seattle University. Graduates from North have also transferred to out-of-state institutions.

Program and admissions requirements vary from college-to-college. Contact a North advisor to create an educational plan tailored to transfer to the institution of your choice.



Scan QR code to learn more about this program.

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#### Get Started

**Step 1:** Apply and register at North Seattle College anytime (the application is always free). Once you become a student, register for classes using the online class schedule and go to the academic calendar for registration dates and tuition deadlines.

**Step 2:** See an advisor to create a personalized educational plan by the end of your second quarter. Your plan will include prerequisites, graduation requirements, and transfer preparation if you plan to transfer to another college or university to earn a bachelor's degree.

#### Tuition and Fees

Learn more about the [estimated cost of attendance and general fees to attend college](#).

#### Financial Aid and Funding Resources

It's time to apply for Financial Aid for next year by completing either the [FAFSA](#) or the [WASFA](#) 2024-25.

#### Need help paying for college?

To apply for financial aid, including grants and scholarships you don't have to pay back, visit [North's Financial Aid Department](#) for details. Part-time and full-time students can qualify for financial aid funds.

#### Program Contact

##### Program Coordinator

[Jae Hyeuk Suk](#)  
[email](#)  
(206) 934-4586

##### Math & Science Division

##### Location

IB 2424A

##### Division Contacts

(206) 934-3746  
(206) 934-3748 (fax)

##### Mailing Address

NSC Math & Science Division  
9600 College Way N  
3N2429  
Seattle, WA 98103

##### Dean

[Vashti Bryant](#)

#### Advising Contact

Contact the [Science, Technology, Engineering and Mathematics Area of Study advisor](#)

206-934-3658



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#### Before Quarter One

- [Pre-College or Transitional Studies Math](#) (if needed)
- [Pre-College or Transitional Studies English](#) (if needed)
- [Explore placement options](#): take the [math](#) and [English](#) placement tool if needed.
- Make an informed choice on the [number of units to take each quarter](#).
- F-1 international students must enroll full time (12+ units) each quarter and check in with the [International Programs office](#) before the start of the quarter if enrolling in less than 12 units and/or before starting any work or volunteer experience.
- Take CHEM&139 General Chemistry Prep as a prerequisite to CHEM&161 General Chemistry with Lab I or [take the chemistry placement exam](#).
- PHYS&114 General Physics w/ Lab or high school physics if needed.
- Apply for [Financial Aid](#) and other funding before your first quarter. Visit the [Financial Aid Office](#) to explore how to pay for college.
- [Transfer previous college credits](#) to North if applicable.
- Attend [New Student Orientation](#).
- Visit potential transfer universities and meeting Engineering transfer advisors.
- If you need academic accommodations for a documented disability, please contact [Disability Services](#).

A sample schedule and quarterly to-do list are below. The schedule and to-do list will help you explore courses and complete tasks on time. The guide assumes a fall quarter start, but you can begin in any quarter.

#### Sample Schedule

This is an example of a quarterly schedule:

##### Quarter 1

- CHEM&161 General Chem W/Lab I (6 units)
- ENGL&101 English Composition I (5 units)
- MATH&151 Calculus I (5 units)

##### Quarter 2

- CHEM&162 General Chem W/Lab II (6 units)
- MATH&152 Calculus II (5 units)
- PHYS&221 Engineering Physics I (5 units)

##### Quarter 3

- CHEM&163 General Chem W/Lab III (6 units)
- MATH&163 Calculus 3 (5 units)
- PHYS&222 Engineering Physics II (5 units)

##### Quarter 4

- PHYS&223 Engineering Physics III (5 units)

##### Quarter 5

- CSC110 Intro to Cmptr Progming (5 units)
- MATH238 Differential Equations (5 units)
- CHEM&241 Organic Chem I (4 units)

##### Quarter 6

- Visual, Literary and Perf Arts (5 units)
- CSC142 or ENGR240 (5 units)
- BIOL&211 or CHEM&242 (variable units)

##### Quarter 7

- BIOL&212 or MATH220 (5 units)
- Individuals/Cultures/Societies (5 units)

##### Quarter 8

- BIOL&213 Majors Plant (5 units)
- Visual, Literary and Perf Arts or Individuals/Cultures/Societies (5 units)
- Recommended: ENGL&235 (5 units)



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#### Sample Quarterly To-Do List

This is an example of a quarterly to-do list:

##### Quarter 1

- Schedule an appointment with your assigned advisor in [Starfish](#) to meet and discuss your goals. Learn more about Starfish [here](#).
- Plan ahead with your advisor and transfer university: Engineering programs typically admit transfer students once per year (fall and spring most common).
- Come to the [Library](#) to get help with research; check out resources; access computers and study space; and create media projects.
- Visit the [Student Learning Center](#) to learn about tutoring services offered in-person and online.
- Check out [campus life: Student Clubs and Affinity Groups](#), [TRIO](#), [Equity & Welcome Center](#), [Wellness Center](#), etc.
- Apply to [LSAMP](#).

##### Quarter 2

- Create an [educational plan](#) with your [assigned advisor](#).
- Apply for [financial aid](#) for the upcoming academic year in Winter or Spring quarter to maximize your funding options.
- Research and develop a list of four-year colleges and universities.
- Attend transfer workshops and a transfer fair.
- Explore careers and majors through workshops, [counseling](#) and [career services](#).
- Visit [North's Transfer webpage](#) for transfer information.

##### Quarter 3

- Update your [educational plan](#) with your [assigned advisor](#).
- Apply for the [Seattle Colleges Foundation Scholarship](#) and [other scholarships](#).
- Consider [Student Leadership positions](#) and other [on-campus jobs](#).
- Attend "Making Learning and Teaching Visible" campus event every spring.
- Apply for Summer financial aid.

##### Quarter 4

- Update your educational plan and confirm your program of study with your [assigned advisor](#).
- Contact Engineering department at potential universities.

##### Quarter 5

- Update your educational plan with your assigned advisor.
- Contact Engineering department at potential universities.
- Attend [transfer events](#) at North and universities of interest.
- Write your personal statement for university applications.

##### Quarter 6

- Apply for [financial aid](#) for the upcoming academic year in Winter or Spring quarter to maximize your funding options.
- Apply to universities and colleges and scholarships.



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**Quarter 7**

- [Apply](#) for the [Associate of Science - Transfer, Track 2 \(AS-Track 2\)](#) degree in ctcLink. Check with your assigned advisor to be sure you are meeting degree requirements.

**Quarter 8**

- Check in with university for transfer plan.



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