

Fast Track MSCS Guide and Policies

Last Revised: June 6, 2023

UPDATE (JUNE 6, 2023): Seattle University is in the process of reviewing their policies with respect to fast track programs. Changes to this policy are likely in Fall 2023. The policies in this document only apply to students who have either (a) declared intent and been approved before June 6, 2023 or (b) declared intent between June 6, 2023 and October 8, 2023, have been approved, and are in their last year of the undergraduate program. Other interested students will be expected to adhere to the new policies which will be finalized by the end of fall quarter 2023.

This document outlines the Fast Track MSCS program which allows a student to earn both BS and MS degrees in computer science in five years. Students start out in the bachelor's program and apply for the MSCS program (typically in the fall of their senior year). Students are allowed to double count two CPSC 5000-level electives that count towards both the BS degree and the MSCS degree. All students who meet the admission requirements are admitted to the program.

This document assumes that students are in the BS (general option) track. There are separate sections later in the document that describe differences if you are in the business specialization or math specialization.

Eligibility Requirements

To be eligible for the Fast Track program, candidates must:

- Already be enrolled the BS program in Computer Science.
- Have completed all required 3000-level CPSC courses (with a C or better).
- Hold a minimum cumulative GPA of 3.0 as well as a major GPA of 3.0.

Steps for the Fast Track Program

There are two steps to complete as part of the transition into the MSCS program:

1. Declare intent to enter Fast Track. This is done by completing by submitting an electronic form on the CS web site.

WHEN: Students can only declare intent once they meet eligibility requirements. Students may declare intent in the quarter they are finishing the required 3000-level courses.

DEADLINE: Students must declare intent by the following deadlines:

- MSCS – Data Science specialization: April 8th of their junior year
- Other tracks: October 8th of their senior year

Declaring intent does two things:

- Your academic advisor will be switched to a Fast Track advisor within the department.
- You will be permitted to register for 5000-level CPSC courses (more later).

2. Complete the MSCS application for admissions. Students do not need to submit GRE scores, recommendations, transcripts, or personal statements.
 - Before applying, work out a plan with your advisor. The application will request the start date which is the subsequent quarter after completing the undergraduate degree.

WHEN: Students can apply in their senior year provided they meet all eligibility requirements.

DEADLINE: Students must apply by April 8th of their senior year.

Selecting an MSCS Degree Option

There are three MSCS degree options: general option, specialization in software engineering, and a specialization in data science. It is strongly recommended to know your desired option when declaring intent as it affects the course selection during the senior year.

Course Planning During Senior Year

During the senior year, student can take 10 credits of 5000-level CPSC electives. These credits will double count towards both the undergraduate and graduate degrees. In addition to these 10 credits, students should be completing all remaining undergraduate requirements. Students also need to apply for graduation for your undergraduate degree at the appropriate time. This is typically fall of the senior year.

General option (10 credits):

There are no requirements of what courses students should take. It is recommended to taking courses that fulfill categorical requirements (applied algorithms, systems, and/or software development) as this provides more flexibility in the 5th year.

Specialization in Software Engineering (13 credits):

The specialization in software engineering requires these specific courses to be taken during the senior year (year 4). It is necessary to take these courses to complete the program in a 5th year.

CPSC 5120 Software Project Management (winter, 3 credits)

CPSC 5200 Software Architecture and Design (winter or spring, 5 credits)

CPSC 5210 Software Testing and Debugging (fall or spring, 5 credits)

Specialization in Data Science (14 credits):

The specialization in data science requires these specific courses to be taken during the senior year (year 4). It is necessary to take these courses to complete the program in a 5th year.

CPSC 5305 Introduction to Data Science (fall, 3 credits)

CPSC 5310 Machine Learning* (winter, 5 credits)

CPSC 5320 Visual Analytics (spring, 3 credits)

CPSC 5330 Big Data Analytics (spring, 3 credits)

*Note: MATH 2310 and MATH 2320 must be taken before CPSC 5310.

Both specializations require more than 10 credits be taken in the senior year. 10 credits will still double count. The excess 3 or 4 credits will only apply to the graduate program. They will not apply to the undergraduate program and cannot be used to meet the 180-credit requirement for all undergraduate students.

Course Registration

Seattle University does not allow students to be concurrently enrolled at two different levels (undergraduate and graduate). Until the undergraduate program is completed, the student will be considered an undergraduate student. Undergraduate students are not allowed to register for 5000-level courses on their own.

Students in the Fast Track program (who have declared intent and have been approved) will receive an electronic form to register for 5000-level courses.

- Fast Track Students are only eligible to take CPSC courses numbered 5120 or higher.
 - CPSC courses numbered 5001 – 5099 are not part of the MSCS program.
 - All Fast Track students are automatically waived from CPSC 5110 and cannot take this course.
- Students must be meet the posted prerequisites with these caveats:
 - Students can take any course without listed prerequisites provided they have completed the four 3000-level CPSC courses.
 - Students can satisfy a CPSC 5110 prerequisite by completing CPSC 4870.
 - Students can satisfy a MATH 5315 prerequisite by completing MATH 2310 and MATH 2320.

Only undergraduate students in the Fast Track program are eligible to register for 5000-level courses this way. Once a student is officially in the MSCS program, they must register for 5000-level courses on their own.

The department does not process Fast Track Intent Forms in the three-week period surrounding registration week (includes registration week, the week before, and the week after). Any forms received during that time will be processed after the three-week period. Students will need to use the WISE form to register after they receive approval and are to subject to space limitations. Students who wish to take 5000-level courses in the following quarter should declared intent by the end of the third week of the current quarter to avoid this situation.

Transitioning into the MSCS Program

If student is admitted to the MSCS program before the undergraduate degree is completed, both program evaluations will be visible on MySeattleU. However, the graduate program evaluation will not be completely filled in until the student graduates.

Once the undergraduate degree is posted, the graduate degree will be activated as follows:

- CPSC 5110 will be waived. Students in the general option or software engineering specialization will have an extra elective. Students in the data science specialization will take CPSC 5200 instead.
- MATH 5315 will be waived for students in the data science specialization provided they have completed MATH 2310 and MATH 2320. This will lower the number of credits needed to graduate.
- The 10 credits that will double count towards the undergraduate degree will be waived from the MSCS degree program and the total number of credits required will be dropped appropriately (see Credit Requirement below).
- Any additional 5000-level courses (beyond the 10 credits that double count) that were completed during the undergraduate study will be moved from the undergraduate transcript to the graduate program evaluation.
 - For the course to be extra, the course must not be used to satisfy an undergraduate requirement and the course must not be used towards the 180-credit requirement for the undergraduate degree.
 - Since the course is moved from the undergraduate record to the graduate record, the grades in these courses will contribute to the graduate GPA and no longer contribute to the undergraduate GPA. Your final undergraduate GPA could change slightly as a result.

Credit Requirement

Seattle University requires all graduate students to take 36 graduate credits at Seattle University. Credits that double count with their undergraduate degree do not count toward the 36 credits. Note that this is a university rule and exceptions are not permitted.

For students in the general option, there are only 35 credits of requirements remaining after accounting for the 10 credits that double count. Students will need to register for one additional credit. The department highly recommends either of the following:

- (Recommended) Obtaining a summer internship (typically in the summer between the 4th and 5th years) and registering for one credit of the internship course CPSC 5950. International students are eligible for Curricular Practical Training (CPT). More information about internships is available at <https://www.seattleu.edu/scieng/computer-science/student-resources/internships/>
- Students interested in the research option of the general track, can request that the graduate research project CPSC 5990 would be expanded from 8 credits to 9 credits. More information is available at <https://www.seattleu.edu/scieng/computer-science/projects/grad-research/>
- Independent study (requires finding a faculty member that is willing to supervise the independent study)
- Extra course (this will involve taking more than one credit as the department does not offer any one credit courses)

This is not an issue for student in the software engineering or data science specializations as both programs require at least 36 credits after the 10 credits that double count.

Policy Regarding 4000-level and 5000-level courses

Only 5000-level courses can satisfy MSCS requirements. 4000-level courses cannot be used. Note: Some courses are taught in a joint 4000/5000-level format. Students must choose the appropriate course level before the add/drop deadline. The course level cannot be changed after that point.

Here is the policy if a student took a 4000-level version of a categorical requirement or required course:

- Students that took a 4000-level systems course will need to take the other systems course as a 5000-level course.
- Students that took both 4000-level systems courses are waived from the system requirement but will need to take a 5-credit 5000-level course instead.
- Students that took one 4000-level applied algorithms course will need to take the other applied algorithms course as a 5000-level course.
- Students that took both 4000-level applied algorithm courses are waived from the applied algorithm requirement but will need to take a 5-credit 5000-level course instead.
- Students that took a 4000-level version of a required 5000-level course will be waived from that requirement but will need to take a 5000-level CPSC elective instead to make up the credits.
- Students will need to take at least one 5000-level software development course regardless of how many 4000-level versions of these courses they took.
- Students cannot use a 4000-level course to satisfy the data science elective.

Note: CPSC 5520 and CPSC 5610 are required courses in the data science specialization.

Graduation and Commencement

Students still need to apply for graduation for both the undergraduate and graduate degrees by the deadlines specified. Students can attend undergraduate commencement when they receive their undergraduate degree (typically at the end of the 4th year) and attend graduate commencement when they receive their graduate degree (typically at the end of the 5th year).

Seattle University requires that a student be a graduate student for at least one quarter, so it is not possible to earn both degrees in the same quarter.

Undergraduate Tracks

As noted earlier, this document describes the Fast Track MSCS program assuming that the student is enrolled in the BS – general option. This section describes variations for students in the math and business specializations. Since these specializations have fewer electives, students will need to take extra courses as general electives. A general elective is a course that counts towards the 180 credits needed for the undergraduate degree but does not satisfy a university core or major requirement. Both specializations have 11 general elective credits.

Math specialization. The only difference is that the math specialization only has one 4000-level requirements. Students should satisfy that requirement using a 5000-level CPSC course. An additional 5000-level course can also be completed as a general elective.

Business specialization. The business specialization does allow for two CPSC electives; both should be taken as 5000-level courses. The business specialization does not require CPSC 2500 or CPSC 3500 which are required for the MSCS program. Students will need to take both of those courses as general electives. Students entering the data science specialization in the MSCS from the business specialization will need to complete MATH 5315 since there is insufficient math in the business specialization.

Students in the BA program are not eligible for the Fast Track MSCS program. Exceptional students can still apply for the MSCS program but will likely need additional time to complete the MSCS program beyond the fifth year.

Frequently Asked Questions

Q: I am undecided about the MSCS program. If I declare intent, am I locked into the taking the MSCS degree?

A: No. Declaring intent does not commit you to the MSCS degree. You can still leave with the undergraduate degree. If you have taken one or two 5000-level courses (10 credits), those will still count as part of your undergraduate degree even if you don't pursue the MSCS degree.

Q: I am undecided about the MSCS program. I may want to work a year or two and then come back to get my Masters degree. Can I do this? If so, what should I do?

A: Yes, you can do this. You should still plan to take two 5000-level courses (10 credits) that will count as part of your undergraduate degree. You don't need to be in the MSCS program to take those 10 credits. Those courses will still satisfy MSCS requirements if you apply to the program later.

Q: What happens if I'm unable to finish the undergraduate degree by the end of the fourth year? Can I take a combination undergraduate and graduate courses in the fifth year?

A: You can remain in the undergraduate and graduate programs in the fifth year and take a combination of undergraduate and graduate courses. We recommend finishing the undergraduate courses sooner since the registrar's system will not fill in the graduate program evaluation until you complete the undergraduate degree. In addition, students with too many deficiencies or plan to graduate too late will not be able to attend spring commencement ceremonies after year 4.

If the undergraduate requirements spill into a fifth year, it is important to keep your expected graduation date current and to apply for graduation by the appropriate deadline.

Q: What happens if I miss the deadline to declare intent and/or the deadline to apply to the MSCS? Can I still enter the Fast Track program?

A: You likely can still enter the Fast Track program. There are several disadvantages to missing the deadlines: a) you may not be able to complete a desired specialization within five years, b) you may not be able to register for the desired 5000-level courses (requires declaring intent), and c) you won't be assigned a Fast Track academic advisor.

Q: Can I finish the undergraduate degree and graduate degree at the same time?

A: No. You must be a graduate student for at least one quarter.

Q: If I have extra space in my schedule during my senior year, can I take more than 10 credits of graduate courses?

A: Yes. However, these courses will not double count and will be considered a graduate course. These extra courses must not be used to satisfy an undergraduate requirement (including computer science electives – see next question) and cannot be used towards the 180-credit requirement for the undergraduate degree.

Q: Since I have 20 credits of 4000-level CPSC electives to take (in BS general option), can I take more than 10 credits of 5000-level CPSC electives to satisfy these requirements?

A: A maximum of 10 credits can double count towards both the undergraduate and graduate degree. As such, student should plan on taking 10 credits of 4000-level undergraduate electives and 10 credits of 5000-level graduate electives to satisfy the 20-credit CPSC elective requirement.

However, it is technically possible to satisfy the 10 credits of 4000-level undergraduate electives with more 5000-level courses but they will not double count – they will count towards the undergraduate degree only. As such, taking a 5000-level course in this manner will not decrease or increase the number of credits needed to complete either degree in the Fast Track program. Note: If a 5000-level course was taken to satisfy an undergraduate elective only (as described here) and the course satisfies a categorical requirement or required course in the MSCS, that requirement will be waived but the student will need to make up the missing credits.

Q: How does the fast-track program affect tuition and financial aid?

A: You are considered in an undergraduate student until you complete your undergraduate degree for tuition and financial aid considerations. Once you finish your undergraduate degree, you will be considered a graduate student with respect to tuition and financial aid.

There are no scholarships nor financial aid that is specific to the Fast Track program. The department, which includes academic advisors, is not knowledgeable in financial aid matters. Students are encouraged to contact Student Financial Services for further information.