

DRAFT

Spring 2022 , Effective Winter 2023

Statewide Associate in Computer Science Associate of Science-Transfer Track 2 (AS-T 2) Major Related Program (MRP)

This document represents an agreement between the undersigned baccalaureate degree granting institutions offering computer science bachelor's degrees and Washington community and technical colleges. This agreement meets all requirements of Washington's Associate of Science-Transfer Track 2 (AS-T 2). Baccalaureate degree granting institutions party to this agreement are identified on the signature pages of this document.

This pathway is focused on math and science courses for students and prepares a student for computer science and other related majors.

Within degree, the required courses are common junior-ready transfer preparation for computer science majors at all participating bachelor degree granting institutions. The degree becomes tailored for preparation at an intended transfer institution through appropriate selection of courses. A course that is appropriate to transfer to one baccalaureate institution may not be the appropriate choice for another baccalaureate institution. It is critical that students be in communication with advisors at their community or technical college and the intended transfer baccalaureate institution.

Community and technical colleges agree:

- When community and technical colleges list the AS-T 2/MRP details in their publications, they will provide the expanded detail shown below regarding the major pathway in the field of computer science while retaining the current detail for other MRP's.
- The published associate degree listing will include advice to students about the need for early contact with their potential transfer institutions regarding the specific course choices in each area of the agreement where options are listed. In addition, the published associate degree will include advice to students regarding checking with their potential transfer institutions about the requirement for overall minimum GPA, a higher GPA in a selected subset of courses or a specific minimum grade in one or more courses such as math or English.
- To offer the Computer Science AS-T 2/MRP each community and technical college and each bachelor degree granting institution party to the agreement must collaborate toward assuring that the required courses in this agreement are either equivalent to or replace the similar required lower division courses offered by each bachelor degree granting institution. Individual course equivalency agreements are between individual institutions, and this agreement does not uniformly grant course equivalency. In addition, each college must assure that the courses listed in their AS-T 2/MRP as meeting the prerequisite requirements of this agreement are regarded as course equivalents to the similar required lower division course offered by each bachelor degree granting institution party to the agreement.
- Upon adopting the degree, a community and technical college will specify the **Computer Science Associate of Science - Transfer Track 2/MRP** in its catalog and specify the courses consistent with this agreement. In addition community colleges will emphasize the advising notes included as part of the agreement.

- When community colleges award the DTA degree for computer science students pursuant to this agreement, rather than using DTA on the transcript,

Computer Science Associate of Science - Transfer Track 2/MRP Agreement 2022

colleges will designate completion as follows for clarity on the transcript and use by SBCTC for tracking reporting purposes:

- **Computer Science Associate of Science- Transfer Track 2/MRP**
 - Intent Code:
 - Exit Code:
 - CIP code:
 - EPC:
- If any community or technical college finds that changes to the AS-T 2/MRP are needed, they will notify the co-chairs of the Joint Transfer Council. JTC will review the changes as detailed in the “Statewide Transfer Agreement Process” found at <https://www.sbctc.edu/resources/documents/colleges-staff/programs-services/transfer/joint-transfer-council/statewide-transfer-agreements-process.pdf>.

The participating bachelor degree granting institutions agree:

- Students completing the Computer Science AS-T 2/MRP, if admitted to the bachelor degree granting institution, will be admitted with all or most prerequisites for the major completed. In addition, these students will have lower division general education courses partially completed in a manner like the partial completion by freshmen-entry students.
- Participating institutions will apply up to 118 quarter credits required under this agreement to the credits required in the bachelor’s degree, subject to institutional policy on the transfer of lower division credits.
- The same 2.0 GPA minimum requirement that applies to AS-T 2 in general applies to this MRP. **Computer Science programs are competitive and may require a higher GPA overall or a higher GPA in specific courses.**
- Once admitted all degree requirements must be met at the participating institution for the Computer Science major.
- Participating bachelor degree granting institutions and each community and technical college party to the agreement must collaborate toward assuring that the required courses in this agreement are either equivalent to or replace the similar required lower division courses offered by each bachelor degree granting institution. Individual course equivalency agreements are between individual institutions, and this agreement does not uniformly grant course equivalency.
- Participating institutions will each build an alert mechanism into their curriculum review process for changes related to this agreement
 - The alert will go to the institution or sector JTC member.
 - If the proposed change will affect lower division course taking, the JTC member will bring the issue to JTC attention for action to review or update this Major Related Program Agreement.
- Prior to making changes in the admission requirements, institutions agree to participate in the JTC-designed review process and to abide by the related implementation timelines (See <https://www.sbctc.edu/resources/documents/colleges-staff/programs-services/transfer/joint-transfer-council/statewide-transfer-agreements-process.pdf>).
- This statewide process applies only to changes¹ in the requirements for admission to the major. References to changes do not include changes in graduation

¹ Changes identified that have an impact on students. This statewide process comes into play when potential students need to complete specific courses not previously identified or present test results or **Computer Science Associate of Science - Transfer Track 2/MRP Agreement 2022**

requirements that are completed at the upper division level or the GPA an institution may establish for admission to a program.

The Joint Transfer Council (JTC) Agrees:

- JTC will revisit the agreement in AY 2026-27
- JTC will notify the Washington Student Achievement Council (WSAC) of the review and of subsequent changes made to the agreement.

information not included in the agreement.

Computer Science Associate of Science - Transfer Track 2/MRP Agreement 2022

Computer Science Associate of Science - Transfer Track 2/MRP

Generic AS-T Track 2 Requirements	Computer Science Pathway
<p>I. Be issued only to students who have earned a cumulative grade point average of at least 2.0, as calculated by the degree awarding institution</p>	<ul style="list-style-type: none"> ● Minimum GPA requirements are established by each participating baccalaureate institution. Meeting the minimum GPA does not guarantee admission. Computer science programs are competitive and may require a higher GPA than 2.0 overall or a higher GPA in specific courses. ● Students must apply to graduate at the community or technical college to be awarded the AS- T 2/MRP. ● Students are strongly encouraged to enroll in math and science sequence courses at a single institution and, if possible, not break up sequenced courses between institutions. ● Certain institutions may have additional “university-specific” requirements for admission to the institution that are not prerequisites specifically identified in the AS-T Track 2 requirements. ● Students should contact potential transfer institutions early regarding the specific course choices in each area of the agreement where options are listed.
<p>II. Be based on 90 quarter hours of transferable credit including:</p>	<p>Total Credits: 90- 118 quarter credits</p>
<p>A. Communication Skills (5 credits) Minimum 5 quarter credits in college-level composition course.</p>	<p><u>Communication Skills (5 credits)</u> 5 quarter credits English Composition (ENGL& 101)</p>

<p>B. Mathematics (10 credits) Two courses (10 credits) required at or above introductory calculus level. Note: See Pre-Major Program math requirement.</p>	<p><u>Mathematics (10 credits)</u> 5 quarter credits mathematics – Calculus I (MATH& 151) 5 quarter credits mathematics – Calculus II (MATH& 152)</p>
<p>C. Humanities and Social Science (15 credits) Minimum 5 credits in Humanities. Minimum 5 credits in Social Science. Additional 5 credits in either Humanities or Social Science for a total of 15 credits.</p>	<p><u>Humanities and Social Science (15 credits)</u> 5 quarter credits in humanities 5 quarter credits in social science 5 quarter credits in either humanities or social science.</p> <p>Humanities Advising Recommendations:</p> <ul style="list-style-type: none"> ● <i><u>Gonzaga</u> - Intro to Literature</i> ● <i><u>Whitworth</u> - A course in the Fine Arts</i> <p>Social Science Advising Recommendations:</p> <ul style="list-style-type: none"> ● <i><u>EWU</u> – Introductory Ethics (PHIL 212) – 5 credits</i> ● <i><u>UW All Campuses</u> - Sociology 101 (SOC& 101) - 5 credits</i> ● <i><u>WSU All Campuses</u>–Macro or Microeconomics (ECON& 201 or ECON& 202)—5 credits</i> ● <i><u>Whitworth</u> - A course fulfilling “American Diversity”</i>

D. Pre-Major Program (25 credits) ²	
D.1³. Physics (15 credits) (calculus-based or non-calculus-based) sequence including laboratory.	<u>Physics (15 -18 credits)</u> 5 quarter credits - Physics I with lab (PHYS& 221) 5 quarter credits – Physics II with lab (PHYS& 222) 5 quarter credits – Physics III with lab (PHYS& 223) Or 6 quarter credits - Physics I with lab (PHYS& 231 and PHYS& 241) 6 quarter credits – Physics II with lab (PHYS& 232 and PHYS& 242) 6 quarter credits – Physics III with lab (PHYS& 233 and PHYS& 243)
D.2. Chemistry with laboratory (5 credits) Required for Engineering majors. Other majors should select 5 credits of science based on advising	<u>Science (5 credits)</u> 5 quarter credits - Science based on advising w/lab
D.3. Mathematics (5 credits) Third quarter calculus or approved statistics course chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.	<u>Mathematics (5 -10credits)</u> 5-10 quarter credits - Calculus III (MATH& 153 and MATH& 254 or MATH& 163)
E.⁴ Remaining Credits (35 credits) Remaining credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.	<u>Remaining Credits (35 - 55 credits)</u> Required 5 quarter credits Computer Programming I 5 quarter credits Computer Programming II

² Courses taken under D. above must come from the Intercollege Relations Commission (ICRC) Handbook’s “Courses Generally Accepted in Transfer” list in order to count as GERs/GURs at the receiving institution. A graduate who has earned the Associate of Science Transfer degree will be required to complete only such additional lower division general education courses at the receiving four-year institutions of higher education as would have been required to complete the DTA Associate degree. Additional degree requirements such as cultural diversity requirements and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

³ Students should be advised that some baccalaureate institutions require physics with calculus to meet D.1.

⁴ A maximum of five (5) credits from the ICRC Handbook’s “Restricted Subject Areas for Transfer” list will be accepted in the remaining credits category (E. above).

Note: See baccalaureate degree granting institution programming language requirements in Appendix A.

Remaining Credits

Remaining credits should be planned with the help of an advisor based on the requirements of the intended transfer baccalaureate institution. Select a minimum of 5 courses.

Advanced Data Structures

Calculus IV

Computer Architecture

Computer Organization/Design

Data Structures

Differential Equations

Digital Logic

Discrete Math

Discrete Structures

General Biology I + lab

General Chemistry I w/lab

General Chemistry II w/lab

Introduction to Computer Architecture

Linear Algebra

Programming Tools

Statistics Calculus based

Technical Writing

Appendix A

Baccalaureate Degree Granting Institution - Programming Language Requirements

The number of required courses denotes the number of courses required in a single language. If a single language is not identified, then the institution requires two courses in any one of the programming languages marked with an “X”.

Institution	Required # of Courses	C	C Sharp	C++	Java
Central Washington University	Two				X
Eastern Washington University	Two			X	X
The Evergreen State College	Two			X	X
Gonzaga University	Two			X	X
Heritage University	Two				X
Pacific Lutheran University	Two			X	X
Seattle Pacific University	Two			X	X
Seattle University	Two			X	X
University of Washington, Bothell	Two in one language.		X	X	X
University of Washington, Seattle	Two				X
University of Washington, Tacoma	One course in Java.	X	X	X	X
Washington State University - All Campuses	Two	X		X	
Western Washington University	Two. Note several upper division courses required for graduation require Java.			X	X
Whitworth University	Two			X	X

Statewide Associate in Computer Science DTA Major Related Program (MRP) Agreement

Participants to the Agreement

The Joint Transfer Council (JTC) reviewed this agreement and forwarded it for approval by the chief academic officers of the public and independent baccalaureate institutions offering computer sciences bachelor's degrees and by the Deputy Executive Director of Education for the State Board for Community and Technical Colleges representing the public community and technical colleges.

On behalf of the Washington State Community and Technical Colleges

X, Deputy Executive Director, Date, Signature

Community and Technical College Computer Science Bachelor of Science Participants to the Agreement

Name, Title, Date, Signature

Public and Private Baccalaureate Institution Participatns to the Agreement

Name, Title, Date, Signature

**ASSOCIATE IN COMPUTER SCIENCE DTA/MRP
Work Group Participants**

Community and Technical Colleges

Lynette Bennet, Skagit Valley College
Ryan Parsons, Whatcm College

Baccalaureate Institutions, Public

Megan McConnell, Central Washington University
Jackie Coomes, Eastern Washington University
Brian Walter, The Evergreen State College
Melanie Singson, University of Washington Bothell
Crystal Eney, University of Washington Seattle
Beth Jeffrey, University of Washington Tacoma
Kira King, University of Washington Tacoma
Anderson Nascimento, University of Washington Tacoma
Waylon Safranski, Washington State University
Sakire Arslan Ay, Washington State University Pullman
Bob Lewis, Washington State University Tri-Cities
Scott Wallace, Washington State University Vancouver
Filip Jagodzinski, Western Washington University
Wesley Deneke, Western Washington University

Baccalaureate Institutions, Private

Laurie Murphy, Pacific Lutheran University
Carlos Arias, Seattle Pacific University
Jonathan Dunca, Walla Walla University

Joint Transfer Council Members

Hillary Powell, Pacific Lutheran University
Julie Garver, Council of Presidents
Terri Standish-Kuon, Independent Colleges of Washington
Sheam Hamilton, Independent Colleges of Washington
Carli Schiffner, State Board for Community and Technical Colleges
Valerie Sundby, State Board for Community and Technical Colleges

Discipline Based Faculty Groups

Izad Khormae, WACSE
Matthew Parsons Fuentes, WACSE
Pat Burnett, WCERTE