ASSOCIATE OF SCIENCE OREGON TRANSFER - COMPUTER SCIENCE (ASOT-CS)

Oregon Administrative Rule 589-006-0050 (7) (https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=248692) defines the Associate of Science as a state approved associate degree that is intended to prepare students to transfer into an upper division baccalaureate degree program in such areas as Business, Science, Mathematics and Engineering. The Associate of Science degree is often designed to meet the requirements of a specific receiving institution.

Any student who holds an Oregon community college Associate of Science Oregon Transfer degree in Computer Science (ASOT-CS) that conforms to the guidelines set forth below, and who transfers to one of the Oregon public universities, will have met the lower division general education requirements of that university.

GPA and course requirements for entry into the major are not necessarily satisfied by the ASOT-CS degree. Once admitted to the university and computer science program, students transferring under this agreement will have junior standing for both the computer science major and university registration purposes.

Adopted by Joint Boards Articulation Commission November 2014;
Approved Higher Education Coordinating Commission December 2014

Background and Intent

The Associate of Science Oregon Transfer degree in Computer Science (ASOT-CS) was created in 2013-2014 through collaboration between members of Oregon Council of Computing Chairs (OCCC), which includes Oregon community college faculty and administration, and Oregon public university computer science chairs and faculty. This built upon work originally started in 2002 to begin an exploration of offering statewide Associate of Science transfer degrees. Like the AAOT (Associate of Arts Oregon Transfer degree) the intention is to recognize lower division coursework, but in this case coursework taken by students intending to major in Computer Science. Students and advisors should be aware of the opportunities created by the ASOT-CS, but should also be mindful of its limitations, as summarized in the explanatory notes that follow the description of the degree itself.

Any student holding the Associate of Science Oregon Transfer-Computer science (ASOT-CS) degree recognized on an official Oregon college transcript will have met the lower division general education requirements of baccalaureate degree programs of any Oregon public university institution.

Students transferring under this agreement will have junior status for registration purposes. Course, class standing, or GPA requirements for specific majors, departments, or schools are not necessarily satisfied by an ASOT–CS degree

All colleges are pre-approved to offer this degree.

General Guidelines

A student must complete a total of 90 quarter credits or more to be awarded the ASOT-CS.

All courses should be aligned with the student's intended program of study and the degree requirements of the baccalaureate institution and program to which the student plans to transfer. A student is encouraged to work with an advisor in the selection of elective courses within the ASOT-CS degree for alignment to the institution the student intends to transfer.

All Foundational Requirements and Discipline Studies courses must be a minimum of 3 credits, except for Health/Wellness/Fitness courses, which may be any number of credits. All Elective courses may be any number of credits.

All courses must be passed with a grade of "C-" or better. Students must have a minimum cumulative GPA of 2.0 at the time the AS/OT-CS is awarded. (note: many CS programs have competitive admission, minimum GPA and grades will not generally be high enough to gain admission to competitive programs)

Foundational Requirements

- **Writing:** Students taking writing courses of three credits each must take WR121, WR122, and WR227. Students taking writing classes of four credits each must take WR121 and either WR122 or WR227. Information Literacy will be included in the writing requirement. *(Note: WR227 will meet additional requirements at some CS baccalaureate programs)*
- **Oral Communication:** One course in the fundamentals of speech or communication designated by the college as meeting the statewide criteria for speech communication.
- **Mathematics:** Must include at minimum MTH 251 Differential Calculus and MTH 252 Integral Calculus.
- **Health/Wellness/Fitness:** One or more courses totaling at least 3 credits.

Discipline Studies

- **Arts and Letters:** Three courses chosen from two or more disciplines.
- **Social Sciences:** Four courses chosen from two or more disciplines.
- **Science/Math/Computer Science:** Four courses from at least two disciplines including at least three laboratory courses in biological and/or physical science
  - *1. See program specific requirements as some programs require physics*
  - *2. Note that the CS and Math core required courses will meet the requirement for 1 of the 4 required courses, so normally only 3 science courses outside of CS/Math are needed*

- **Cultural Literacy:** Students must select one course from any of the discipline studies that is designated as meeting the statewide criteria for cultural literacy.

Computer Science Specific Requirements

A minimum of sixteen credits in Computer science consisting of the following courses. Each course in this section must be completed with a grade of "C" or better. (Note: many CS programs have competitive admission. Minimum GPA and grades will not generally be high enough to gain admission to competitive programs).

Required courses:

- CS 160: Introduction to Computer Science
- CS 161: Computer Science 1
- CS 162: Computer Science 2
- CS 260: Data Structures

Electives

Complete additional courses to bring the total number of credits to at least 90; varies depending on the student's selection of courses to meet the requirements above. Please carefully plan this in consultation with university specific CS program requirements. A current guide for university specific, lower division CS requirements is maintained at http://occcwiki.org (http://occcwiki.org/) or consult with an advisor from the target university program.

Lower division courses taken at the community college may not meet the requirements of an upper division course with a similar title and content offered by an Oregon public university Computer Science program. In such cases, the courses in question will normally transfer as electives. The ASOT-CS degree may include up to 12 approved Career Technical Education credits as electives.

Notes & Clarifications

The following notes are not intended to be part of the "Guidelines" (above) but, rather, serve to clarify them for participating institutions.

1. Community colleges may not add graduation requirements at the local level. The total credits should not exceed the number required to meet these course requirements within the college's credit structure.
2. Writing courses must meet the specific course outcomes as identified by Oregon Writing and English Advisory Council. In addition, the group of courses that is sufficient for meeting this requirement must, together, provide all of the content recommended by the Oregon Writing and English Advisory Committee (OWEAC), including a research component. Further information can be found at OWEAC (https://oweac.wordpress.com/).
3. Although they are important in terms of preparation, courses that are developmental in nature are designed to prepare students for college-level work and are not counted in the 90 quarter hours required for the ASOT-CS. However, it is recommended that students and advisors note that grades earned in developmental courses will likely count in the cumulative grade point average (GPA) at the community college. It is also advised to work early with the receiving 4-year institution and determine what policy/practice is in place in calculating cumulative GPA upon transfer (since developmental courses will not transfer).
4. The "Foundational Requirements" above represent minimal skill competencies. As such, they may be open to demonstration of competency. Each community college is encouraged to establish how students may demonstrate competency in lieu of completing the course(s).
5. Computer Science courses used in the Science/Math/Computer Science area must meet Oregon Council of Computer Chairs criteria for a science course. See list of courses at OCCC wiki (http://occcwiki.org/). Math courses listed in the Science/Math/Computer Science area must meet the outcomes and criteria for Mathematics. These can be found in Appendix G - ASOT-CS University-Specific Electives (/handbook/appendices/appendix-m---asot---cs) of this *Handbook*.

6. All Foundational Requirement courses and Discipline Studies courses must meet the statewide outcomes and criteria for the specific area. These can be found in Appendix G - ASOT-CS University-Specific Electives (/handbook/appendices/appendix-m---asot---cs).

7. The second year of a foreign language, but not the first year, may be included among courses that count toward the Arts and Letters requirement. American Sign Language (ASL) is considered a foreign language.

8. WR 115 may be included in the ASOT-CS degree as an elective providing that the WR 115 course at the community college has been approved by the Office of Community Colleges and Workforce Development (CCWD) as meeting statewide learning outcomes for the course.

9. The principal advantage of the ASOT-CS is that it fulfills the lower-division (freshman / sophomore) General Education requirements for baccalaureate degrees at all Oregon public universities. It does not necessarily meet all of the degree requirements that an Oregon public university might have beyond the requirements for majors. The ASOT-CS guarantees that all General Education credits that a student earned will be accepted as the General Education requirements at the receiving institution.

10. Students may also be able to use ASOT-CS general education courses to meet certain lower-division requirements in their intended major. Students intending to major in Computer Science, and also want to maximize the amount of ASOT-CS coursework that will count toward it, should work closely with an academic adviser.

11. Because the amount of coursework required for an ASOT-CS degree corresponds to two academic years, degree recipients are considered juniors for purposes of registration at an Oregon public university. Students should keep in mind, however, that the ASOT-CS does not guarantee that two additional years will suffice to earn a baccalaureate degree. That is because the ASOT-CS does not give students junior-standing in their majors. Neither does it guarantee entrance into a competitive major; minimum GPA and grades will not generally be high enough to gain admission to competitive programs. Students may need to take additional introductory work to prepare for certain majors and should check with an advisor regarding availability at their local community colleges.

12. Students and academic advisers should recognize that although the ASOT-CS provides an excellent structure for many students intending on pursuing a computer science 4 year degree, it is not ideal for everyone. Students should consult closely with a computer science advisor at both their community college and the 4-year transfer institution.

13. All courses must be passed with a C- or better. If a course is taken as a P/NP and the student receives a "Pass" ("P"), it is considered equivalent to a C- or better at all Oregon community colleges. However, it is recommended that students take courses for a letter grade and not P/NP.

14. For purposes of the Oregon ASOT-CS degree, no student with a disability shall be denied the degree or the benefits flowing there with respect to admission and matriculation at a state university because the student has been granted an academic adjustment or program modification in any course required for the ASOT-CS degree. This provision includes course substitutions when granted as a disability accommodation in the manner prescribed by the student's community college. This provision may not necessarily apply to major specific course requirements or prerequisites.

    Oregon Community Colleges will consider a course substitution request on a case-by-case basis, based on the student's disability as determined by documentation as long as there is no substantial change to the course learning outcomes. Before considering a course substitution, assistive technology, tutoring, or other reasonable accommodations will be considered in an effort to enable the student to succeed in standard course work. However, nothing in these guidelines should be interpreted as requiring the student to attempt and fail a standard course, including one made more accessible through reasonable accommodation, before consideration will be given to a request for

course substitution. A course substitution will not automatically be made simply because the student has documentation of a disability impacting a particular area of academics. Requesting a course substitution should follow the process listed below.

- The student must request a disability-related course substitution through the designated Disability Services representative and provide appropriate documentation.
- The Disability Services Office will contact the vice president or college designee to determine whether the substitution course would result in a substantial change in the course learning outcomes.
- If the substitution would result in a substantial change in the course learning outcomes, the substitution will be denied.
- If the substitution does not result in a substantial change in the course learning outcomes it will be approved.

Computer Science Transfer-Specific Notes

- *Computer Science, Pro School/Program Admission:* Admission to Computer Science or Professional school/program of any Oregon public university institution is not guaranteed upon completion of the Associate of Science/Oregon Transfer in Computer Science (ASOT-CS) degree. It is strongly recommended that students contact the specific Oregon public university campus' Computer Science school/program early in the first year of their ASOT-CS program to be advised about additional requirements and procedures for admission consideration to the Oregon public university institution and the Computer Science school/program. For further information see Appendix G - ASOT-CS University-Specific Electives (/handbook/appendices/appendix-m---asot---cs) in this *Handbook* or the OCCC wiki (http://occcwiki.org/).

Approval Process

- All colleges are pre-approved to offer this degree.
- The recommended Classification of Instructional Programs (CIP) code for the ASOT-CS is 11.0701.