# Computer Science

*Degree: Associate of Science in Computer Science (AS)*

**COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**Program Description:** The Computer Studies area is differentiated into two areas: Computer Science and Computer Information Technology.

The Associate of Science degree in Computer Science is designed to prepare the student for transfer to a four-year university. The Computer Science degree complies with the Computer Science field of study curriculum mandated in Senate Bill 148 of the 75th Texas Legislature. Students transferring should always consult with an advisor or articulation officer from their receiving institution.

**Contact:**
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**Department Website**
sites.austincc.edu/cs

Note: High school juniors and seniors can start earning college credit before graduating from high school. Austin Community College enrolls eligible high school students through the Dual Credit Program, allowing them to take up to two college courses per semester while still in high school. Courses may be taken at any ACC campus, ACC center, online, or at your high school campus if available. Consult with your advisor for more information.

*Use this **Program MAP** to choose courses with your advisor and track progress towards milestones and completion of program.*

| Pre-Degree Requirements | | |
|---|---|---|
| Program Specific | Reading and Writing Placement<br>*Placements based on TSI* | Mathematics Placement<br>*Placements based on TSI* |
| Prerequisites for MATH 2413 – Calculus I:<br>□ MATH 1314 – College Algebra<br>□ MATH 1316 – Trigonometry<br>□ MATH 2412 – Precalculus: Functions and Graphs | □ Basic Developmental Courses<br>□ ESOL Courses<br>□ INRW Courses | □ NCBM and MATD courses paired with MATH courses<br>□ NCBM and MATD courses |

| SEMESTER-BY-SEMESTER PROGRAM PLAN FOR FULL-TIME STUDENTS |
|---|
| *Plans can be modified to fit the needs of part-time students by adding more semesters* |

| Semester 1 | CR | Advising Notes |
|---|---|---|
| EDUC 1300 - Effective Learning: Strategies for College Success **OR**<br>Oral Communication | 3 | Note: All first-time Austin Community College (ACC) students with fewer than 12 SCH of successful college credit must take the EDUC 1300 course in their first semester at ACC. All other students can choose a speech course from the Component Area Option section of the Core Curriculum Course List. |
| COSC 1336 - Programming Fundamentals I | 3 | |
| ENGL 1301 - English Composition I | 3 | Prerequisite(s): TSI complete in reading and writing or exempt. |
| MATH 2413 - Calculus I | 4 | Prerequisite(s): MATH 2412 with minimum grade C; OR satisfactory score on the ACC Higher Level Mathematics Placement Test. |
| HIST 1301 - United States History I | 3 | |
| | **16** | **Program Semester Hours / Meet with your advisor** |
| Semester 2 | | |
| MATH 2414 - Calculus II | 4 | Prerequisite(s): MATH 2413 with a C or better or equivalent. |
| ENGL 1302 - English Composition II | 3 | Prerequisite(s): ENGL 1301 or equivalent with minimum grade of C. |
| PHIL 1301 - Introduction to Philosophy | 3 | |
| HIST 1302 - United States History II | 3 | |
| COSC 1337 - Programming Fundamentals II | 3 | Prerequisite(s): COSC 1336 or instructional program approval. |
| | **16** | **Program Semester Hours / Meet with your program advisor** |
| Semester 3 | | |
| GOVT 2305 - United States Government | 3 | |
| COSC 2436 - Programming Fundamentals III: Data Structures | 4 | Prerequisite(s): COSC 1337 or instructional program approval. |

| Life and Physical Sciences | 3-4 | Note: Select ASTR, BIOL, CHEM, GEOL, PHYS courses from the Life and Physical Sciences section of the Core Curriculum List. Both Life and Physical Sciences courses must be from the same discipline. |
|---|---|---|
| Literature | 3 | Note: Select a literature course from the Component Area Option section of the Core Curriculum Course List. |
| | **13-14** | **Program Semester Hours / Meet with your program advisor** |
| **Semester 4** | | |
| GOVT 2306 - Texas State and Local Government | 3 | |
| COSC 2325 - Computer Organization and Machine Language | 3 | Prerequisite(s): Two semesters of programming or instructional program approval. |
| Life and Physical Sciences | 3-4 | Note: Select ASTR, BIOL, CHEM, GEOL, PHYS courses from the Life and Physical Sciences section of the Core Curriculum List. Both Life and Physical Sciences courses must be from the same discipline. |
| Social and Behavioral Sciences | 3 | Note: Select courses from the appropriate section of the Core Curriculum Course List. |
| Creative Arts | 3 | Note: Select courses from the appropriate section of the Core Curriculum Course List.<br><br>**ACHIEVEMENT:** Associate of Science degree in Computer Science |
| | **15-16** | **Program Semester Hours** |
| | | |
| **Total Program Hours** | **60-62** | |

Please always check online at **catalog.austincc.edu** or meet with your academic or program advisor to ensure that you are viewing the latest and most accurate information.

## Career & Transfer Resources

ACC's Career & Transfer websites provide detailed, guided information on career exploration and transfer.
**www.austincc.edu/career**
**www.austincc.edu/transfer**

For further information regarding this specific program, please see the Career & Transfer Resources supplement provided in the next section of this Program Map.

**Program Map**

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## Transfer Information

The Associate of Science degree in Computer Science is designed for students planning to continue their studies at a 4-year institution. Students are strongly encouraged to select a transfer destination by the time they have completed 24 semester credit hours.

**Common majors students pursue at a 4-year institution include:** Computer Science, Computer Engineering

**Transfer Guides:** *The universities listed here do not constitute an ACC endorsement. Transfer course evaluations and determination of what courses will count toward a bachelor's degree are made by the receiving transfer institution.*

**The University of Texas:** https://admissions.utexas.edu/apply/transfer-resources/acc-transfer-guides
**Texas State University:** https://www.admissions.txstate.edu/future-students/transfer/tpg
**Texas A&M University:** https://admissions.tamu.edu/transfer/majors
**Texas Tech University:** https://catalog.ttu.edu/content.php?catoid=9&navoid=996
**Texas State University- Round Rock:** http://www.rrc.txstate.edu/prospective/checksheets.html
**Huston-Tillotson University:** http://htu.edu/academics/colleges/sbt/dept-of-computer-science/computer-science
**Concordia University-Texas:** http://www.concordia.edu/academics/school-of-natural-and-applied-sciences/computer-science/degree-requirements.html

**Reverse Transfer**: If you transfer to a four-year institution prior to graduating from ACC, you can still earn your associate degree through reverse transfer. More information on the reverse transfer process and requirements can be found at www.austincc.edu/students/transfer-services/reverse-transfer.

**Additional Transfer Resources:** ACC's transfer website provides information on additional colleges & universities: http://www.austincc.edu/transferguides. Students are encouraged to consult with a faculty advisor, area of study advisor, and/or their chosen transfer institution to ensure courses taken at ACC will apply toward their bachelor's degree program.

## Career Information

Computer Studies is a constantly evolving field with a dynamic nature that consistently propels the need for competent qualified computer science professionals. Graduates can work within a variety of careers from network and computer systems administrators to systems engineer. For more information, visit the ACC Computer Science and Computer Information Technology program website at: http://sites.austincc.edu/cs/.

**Common Job Titles**
Network and Computer Systems Administrators, Information Technology Manager, Local Area Network Administrator, Network Administrator, Network Engineer, Network Manager, Network Specialist, Systems Administrator, Systems Engineer
*Many career opportunities in this field require completion of a bachelor's degree or higher.*

**Regional Labor Market Information**
Network and Computer Systems Administrators: New workers generally start around $50,106. Normal pay for Network and Computer Systems Administrators is $85,783 per year, while highly experienced workers can earn as much as $142,512. Over the last year, 919 companies have posted 8,865 jobs for Network and Computer Systems Administrators in this region. There are currently 4,137 Network and Computer Systems Administrators that are employed in Austin-Round Rock, TX.
Source: https://austincc.emsicc.com/careers/network-and-computer-systems-administrator

**Career and labor market research tools** (see Quick Reference Guide at http://www.austincc.edu/career):
EMSI: https://austincc.emsicc.com/, Bureau of Labor Statistics: http://www.bls.gov/ooh/, O*NET: https://www.onetonline.org/

**Career Resources:** ACC's career services website provides information on career exploration and employment at http://www.austincc.edu/career. Students are encouraged to consult with their area of study advisor for additional career assistance. The above information is provided as a guide and reference tool for occupations related to this program. This is not a guarantee of job placement in any of these occupations after successful completion of an ACC program. The common job titles listed are representative titles and are provided for career research. These are not the only occupations possible in this area of study.