TRANSFER ARTICULATION: COMPUTING SCIENCE

Computing Science is an inter-disciplinary field encompassing mathematics, logic, science, communication, and engineering. Fundamental to a study of Computer Science is the development of intellectual tools and practical skills in the design and implementation of technology-based solutions to real world scientific, business, and human problems. The Sam Houston State University undergraduate computer science degree program has been accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (CAC/ABET). Degree programs include Computer Science, Digital Forensics, and Information Assurance.

The Computing Science program offers major study plans for students wishing to pursue careers as an analyst/designer/programmer/software engineer (scientific, engineering, business), as network and database administrators, as digital forensics and information security professionals, or to prepare for advanced studies at the graduate level. Minor study plans are offered, which can be tailored to the needs of students majoring in almost any field. A plan leading to secondary teacher certification in Computer Science is also offered.

Department Contact: Dr. Bing Zhou (%20bxz001@shsu.edu)
Phone: (936) 294-1590
Location: AB1 Room 214
Department of Computer Science

Student Advising and Mentoring Cente **(**https://www.shsu.edu/centers/sam-center/**)r**
Phone: (936) 294-4444

Courses Transfer Students Should Take:*

SHSU Course Number	College/TCCN	SHSU Course Title	Semester Credit Hours
COSC 1436	COSC 1436	Programming Fundamentals I	4
COSC 1437	COSC 1437	Programming Fundamentals II	4
COSC 2329	COSC 2425	Comp Organiz & Machine Lang	3

*Note: Other courses may transfer, depending upon the selected degree or program. Meet with your academic advisor to confirm whether coursework will transfer from another institution. For a complete listing of degree-specific requirements, please, review the degree plan within the Undergraduate Catalog (http://catalog.shsu.edu/archives/2023-2024/undergraduate/).

- Bachelor of Science, Major in Computing Science (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/ science-and-engineering-technology/computer-science/bs-computing-science/)

- Bachelor of Science, Major in Computing Science (Information Systems, IS) (http://catalog.shsu.edu/archives/2023-2024/undergraduate/ colleges-academic-departments/science-and-engineering-technology/computer-science/bs-computing-science-information-science/)

- Bachelor of Science, Major in Computing Science (Information Assurance, IA) (http://catalog.shsu.edu/archives/2023-2024/undergraduate/ colleges-academic-departments/science-and-engineering-technology/computer-science/bs-computing-science-information-assurance/)

- Bachelor of Science, Major in Software Engineering (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/computer-science/bs-computer-software-engineering-technology/)

- Bachelor of Science, Major in (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/computer-science/bs-digital-cyber-forensic-engineering-technology/)Cybersecurity (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/computer-science/bs-digital-cyber-forensic-engineering-technology/)

- Minor in Computer Science (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/computer-science/computer-science-minor/)

Field of Study

Sam Houston State University supports the State of Texas Fields of Study (https://www.highered.texas.gov/our-work/supporting-our-institutions/program-development/texas-transfer-framework/).

The baccalaureate degree in Computing Science consists of 6 components:

- A 26-hour computing science core. This represents the body of knowledge that all computer science professionals should know.
- An 18-hour concentration. The department offers three concentrations, **computing science** (CS – writing operating systems, networking, end user applications e.g., office suites, etcetera), **information systems** (IS – business data processing, financial, inventory control, management, etcetera), and **information assurance and security** (IA – security-oriented curriculum).

- A 16-hour science component. This comprises eight semester credit hours in each of two natural sciences. Physics (PHYS 2411 & PHYS 2422) and sciences for majors and minors are preferred science course options to increase job opportunities.
- A 17-hour mathematics component including Calculus I/II and Discrete Mathematics. The scientific/engineering mathematics sequence provides access to all computing career opportunities. MATH 1420, MATH 1430, and MATH 2395 should be completed prior to registering in upper division (junior and senior level) courses.
- A maximum of 66 transfer credit hours ("C" or better excluding kinesiology) from a community college/two-year institution may be applied to a degree at SHSU. Students should carefully select courses to complete the associates degree while not exceeding the 66-hour cap for transfer credit.
- **In addition to the computing science core above, transfer students should attempt to complete all, or almost all of the state-mandated 42-hour core curriculum at their home institution,** including: Communications; Mathematics; Life & Physical Science; Language, Philosophy and Culture; Social and Behavioral Science; and Component Area Option if available. **Transfer students should use their institution's 42-hour core as a guide maximizing courses in the above major core which are included in your institution's state-mandated core.**
- For more information visit the Department of Computer Science. (http://cs.shsu.edu/)

The Core Curriculum (http://catalog.shsu.edu/archives/2023-2024/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/) at Sam Houston State University (to be used by all incoming students as of fall 2014) contains 42 semester credit hours, encompassing nine component areas. Each component area has a minimum credit hour requirement and a selection of specific courses that may be used to satisfy the requirement. The Core Curriculum (http://catalog.shsu.edu/archives/2023-2024/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/) details Sam Houston State University courses and their Texas Common Course Number (TCCN) equivalents for college transfer students which comprise SHSU's core curriculum.

Many SHSU disciplines including the sciences, business, and education require specific courses from the SHSU core as degree specific graduation requirements. To minimize cost and time to complete degree requirements always select SHSU/transfer core courses specified as degree requirements in your intended major. If you have not decided on a major, select core courses supporting your intended area of academic concentration.

Prior to enrolling in core classes, students are encouraged to review specific degree requirements for their major. Selection of major-specified core courses reduces the total number of hours required for graduation.

If you do not see a Texas Common Course Number (TCCN) mapping a specific core course to your transfer institution, please go to Transfer Course Equivalency Guide (https://ww2.shsu.edu/regr27wp/)and select your institution from the drop-down menu. The result will list all currently mapped transfer courses from your institution to SHSU courses.