TRANSFER ARTICULATION: ELECTRONICS AND COMPUTER ENGINEERING TECHNOLOGY

Cooperative program leading to the Bachelor of Science Degree in Electronics and Computer Engineering Technology (ECET) at Sam Houston State University.

The Bachelor of Science degree in Electronics and Computer Engineering Technology includes a concentration of coursework in both Engineering Technology and Computer Science departments. Students investigate concepts and principles that provide them with a sound technical base in various sectors of the Engineering Technology, Electrical, Electronics, and Computer Engineering Technology industries. They will analyze computer hardware and software from an engineering perspective and examine large scale integrated (VLSI) circuits and systems, microprocessor interfacing and system design, and computer system architecture and design. The ECET program prepares students for application-oriented engineering technology careers in electrical circuits, analog and digital electronics, computer architecture, control systems, and programmable logic controller (PLC), microprocessor systems, robotic, computer-based data acquisition, wireless/RF telecommunications, networking, instrumentation, interfacing, electrical power and machinery, and conventional and renewable energy systems.

The ECET coursework is based on applications-oriented curriculum and hands-on experience is gained through laboratory experiences that are carefully integrated into the courses. In addition, ECET students benefit from the strong emphasis placed on internship, Co-op opportunities, senior design projects in local and regional industries, and the development of written and oral communication skills. The recent SHSU ECET graduates are firmly rooted in modern engineering technology and are able to offer their employers immediate contribution as team players who have problem solving, troubleshooting, production, implementation, and technical project management experience.

The Department of Engineering Technology (https://www.shsu.edu/academics/engineering-technology/) was established as a brand-new department which separated from Department Agricultural Sciences and Engineering Technology at Sam Houston State University in September 2017. This department had been originally established as a joint department in 1909. The Department of Engineering Technology also offers a B.S. in Engineering Technology, a B.S. in Construction Management, Mechanical Engineering Technology, and a B.S. in Engineering Design Technology. Additionally, minors and concentrations are available in Electronics, Construction Management, Industrial Safety Management, Engineering Design Technology, Manufacturing Engineering Technology, Architectural Design Technology, and Trades & Industry Certification. The Department serves as the academic advisement center for students interested in the Bachelor of Applied Arts and Sciences degree.

There are currently 600+ students enrolled in Engineering Technology at SHSU. Enrollment in the program has grown by over 50% during the past 5 years when the department was restructured from Industrial Technology to Engineering Technology. The B.S. in ECET degree program is one of the fastest growing majors in both the department and the College of Science and Engineering Technology (COSET) at SHSU. There are literally hundreds of possible career opportunities for those graduating with a degree from the Engineering Technology program at SHSU.

A number of Texas Community College graduates with AAS degrees can transfer to the SHSU ECET program using many of their earned credits due to an articulation agreement between their college and the SHSU ETEC Department. Both the Department and the ECET program have excellent support from many local major companies and industrial partners such as Quanta Services, Inc., Entergy, Shell, and ThermOmegaTech, Inc.

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Location: Fred Pirkle Engineering Technology Center, PIRK 420C

Courses Transfer Students Should Take at the Community College:*

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
ETDD 1361	ENGR 1304	Engineering Graphics	3
ETEC 1010		Engineering Foundations	1-2
ETEE 1340	ENGT 1401	Introduction to Circuits	3
ETEE 2320	ENGT 1402	Circuits and Systems	3
MATH 1314	MATH 1314	Pre Calculus Algebra	3
MATH 1316	MATH 1316	Plane Trigonometry	3
MATH 1420	MATH 2413	Calculus I	4
PHYS 1101	PHYS 1101	General Physics Laboratory I	1
PHYS 1102	PHYS 1102	General Physics Laboratory II	1
PHYS 1301	PHYS 1301	General Phy-Mechanics & Heat	3
PHYS 1302	PHYS 1302	Gen Phy-Snd,Lght, Elec, & Mag	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 Construction Management (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/bs-construction-management/)
- Bachelor of Science, Major in Electronics and Computer Engineering Technology (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/bs-electronics-computer-engineering-technology/)
- Bachelor of Science, Major in Engineering Design Technology (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/bs-engineering-design-technology/)
- Bachelor of Science, Major in Engineering Technology - Concentration in Electronics (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/bs-engineering-technology-concentration-electronics/)
- Bachelor of Science, Major in Engineering Technology - Concentration in Safety Management (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/bs-engineering-technology-concentration-safety-management/)
- Bachelor of Science, Major in Engineering Technology (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/bs-engineering-technology/)
- Bachelor of Science, Major in Mechanical Engineering Technology (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/engineering-technology/bs-mechanical-engineering-technology/)
- Minor in Architectural Design Technology (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/engineering-technology/architectural-design-technology-minor/)
- Minor in Construction Management (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/construction-management-minor-/)
- Minor in Electronics (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/electronics-minor/)
- Minor in Engineering Design Technology (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/design-development-minor-/)
- Minor in Industrial Safety Management (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/industrial-safety-management/)
- Minor in Interior Design (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/interior-design-minor/)
- Minor in Trades and Industry Certification (http://catalog.shsu.edu/archives/2023-2024/undergraduate/colleges-academic-departments/science-and-engineering-technology/agricultural-science/trades-and-industry-certification-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 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.