

TRANSFER ARTICULATION: PHYSICS

The following is a cooperative effort by your college and Sam Houston State University allowing a student to complete the Associate Degree and utilize the majority of course work to complete the Bachelor of Science Degree in Physics at SHSU. Students are encouraged to seek advice from Academic Advisors to ensure maximum transferability of course work between institutions and Sam Houston State University.

The Department of Physics goals include training professional physicists; providing the first two years toward engineering degrees; preparing physics teachers; providing the background for effective work in environmental science, agriculture, law, medicine, nursing, medical technology, engineering, and forensics.

The Department of Physics at Sam Houston State University encourages you to join our faculty, staff, and student body in a field that allows for life long exploration and improvement of the mind. Students completing the Bachelor of Science degree are prepared for careers in industry, academia, admission to professional schools, and to seek advanced degrees.

Physics students will learn the simplicity of nature and the unifying aspects of the laws of physics. This is accomplished by recognizing physical problems, developing a hypothesis and predicting the consequences of it, performing experiments to test the predictions, and formulating the results into a theory. The skills of inquiry, observation, and experimentation are used in all scientific careers including engineering, business, teaching, and administration. The Physics Department has basic research laboratories in selected fields and provides opportunities for advanced students to be involved in research projects. The University operates computer laboratories containing desktop computers, and work stations at several locations on campus.

Physics Degree

The following table lists courses leading towards a concentration / major in Physics at each institutions.

[Table]

A student may need preparatory work in mathematics or might be eligible for advanced placement, either of which necessitates adjustment of the schedule. Such a student should consult a member of the physics or mathematics faculty concerning his/her schedule.

Minor in Physics

A minor in Physics requires a minimum of 24 hours of coursework and shall include PHY 141 and 142, 245, 391/311, and eight semester hours of advanced electives in physics.

[Table]

Pre-Engineering

Students wishing to major in any of the many fields of engineering may take their first two years in pre-engineering at Sam Houston State University and transfer to a college of engineering to complete their degree requirements.

[Table]

For the Dual Degree Plan the student completes three years in Physics at Sam Houston State University and the curriculum in an engineering field at a university with a recognized accredited degree program in the chosen engineering field. After successfully completing this program, the student receives two Bachelor of Science degrees, one in Physics from Sam Houston State University and one in an engineering specialty from the university with the recognized accredited engineering degree program. The applicable engineering specialties are aerospace, agriculture, chemical, civil, electrical, industrial, mechanical, nuclear, petroleum, and radiation protection engineering. For the chemical engineering option, a Bachelor of Science in Chemistry would be received from Sam Houston State University.

For more information on this program contact:

Dual Degree Plan Coordinator
Department of Physics
Sam Houston State University
Huntsville, Texas 77341-2267

Students in either of these programs should consult with the Physics/Engineering advisor to adjust the recommended programs to meet the requirements of the particular field of engineering at the terminal university. To contact the Department of Physics (<https://www.shsu.edu/academics/physics/>) call (936) 294-1601; FAX: (936) 294-1585.

The Core Curriculum (<http://catalog.shsu.edu/archives/2020-2021/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/2020-2021/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.