

BACHELOR OF SCIENCE, MAJOR IN ENGINEERING DESIGN TECHNOLOGY

Code	Title	Hours
Bachelor of Science, Major in Engineering Design and Technology		
Core Curriculum (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)		
Component Area I (Communication)		6
Component Area II (Mathematics) ¹		3
Component Area III (Life and Physical Science) ²		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts)		3
Component Area VI (U.S. History)		6
Component Area VII (Political Science/Government)		6
Component Area VIII (Social and Behavioral Sciences)		3
Component Area IX (Component Area Option)		4
Degree Specific Requirements		
MATH 3379 or ENGL 3330	Statistical Methods in Practice Intro to Technical Writing	3
MATH 1314	Pre Calculus Algebra	3
MATH 1316	Plane Trigonometry	3
PHYS 1301 & PHYS 1101	General Phy-Mechanics & Heat and General Physics Laboratory I	4
PHYS 1302 & PHYS 1102	Gen Phy-Snd,Lght, Elec, & Mag and General Physics Laboratory II	4
Major Core		
ETDD 1361	Engineering Graphics	3
ETEC 1010	Engineering Foundations	1-2
ETEC 1371	Descriptive Geometry	3
ETEE 1340	Introduction to Circuits	3
Major		
ETCM 2363	Architectural Design	3
ETDD 3310	Product Design & Development	3
ETDD 3379	Industrial Systems Drafting	3
ETDD 4339	Computer-Aided Drafting Produc	3
ETDD 4380	Material Hand & Plant Layout	3
ETDD 4388 or ETEC 4099	3D Parametric Design Engineering Innovation	3
ETEC 3367	Engineering Materials Techn	3
ETEC 3374 or ETEC 3300	Time And Motion Study Technology Innovations	3
ETEC 3375	Statics	3
ETEC 4384 or ETEC 4376	Supervisory Personnel Practice Strength of Materials	3
ETSM 3386	Industrial Safety	3
6 hours Internship		6
ETEC 4391	Work Base Mentorship	
Minor		
Minor		9
Minor (9 hours advanced)		9
Total Hours		123-124

- ¹ MATH 1316 or MATH 1314 or MATH 1420 or MATH 1324 satisfies the Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific requirement.
- ² Must be taken from BIOL, CHEM, GEOL, or GEOG 1401 only.

First Year

Fall	Hours Spring	Hours
Component Area I (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai)	3 Component Area I (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai)	3
Component Area IX (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	4 Component Area IV (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiiv)	3
ETDD 1361	3 ETEC 1371	3
ETEC 1010	1-2 ETEE 1340	3
MATH 1314 ¹	3 MATH 1316	3
	14-15	15

Second Year

Fall	Hours Spring	Hours
Component Area VI (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3 Component Area VI (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3
ETCM 2363	3 Component Area VII (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3
ETDD 3310	3 Component Area VIII (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3
Minor Course	3 MATH 3379 or ENGL 3330	3
PHYS 1301 & PHYS 1101	4 PHYS 1302 & PHYS 1102	4
	16	16

Third Year

Fall	Hours Spring	Hours
Component Area III (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii) ²	4 Component Area III (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii) ²	4
ETDD 3379	3 Component Area V (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3
ETEC 3375	3 ETEC 3367	3
Minor Courses	6 ETEC 3374 or 3300 ETSM 3386	3 3
	16	16

Fourth Year

Fall	Hours Spring	Hours
Component Area VII (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3 ETDD 4388 or ETEC 4099	3
ETDD 4339	3 Internship:	6
ETDD 4380	3 ETEC 4391	3
ETEC 4384 or 4376	3 Minor Courses - advanced	6
Minor Courses - advanced	3	3
	15	15

Total Hours: 123-124

- ¹ Satisfies Core Curriculum requirement for Component Area II (Mathematics). MATH 1420 also satisfies one semester credit hour of the Core Curriculum requirement for Component Area IX (Core Component Option).
- ² Must be taken from BIOL, CHEM, GEOL, or GEOG 1401 only.

The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BS in Design and Development is designed to provide graduates with the following marketable skills:

- Conduct engineering design using Computer Aided Design (CAD) tools.
- Fabricate prototypes via various manufacturing processes and equipment.
- Communicate effectively in both written and verbal forms.
- Work collaboratively in a team environment.