BACHELOR OF SCIENCE, MAJOR IN ENGINEERING TECHNOLOGY - CONCENTRATION IN ARCHITECTURAL DESIGN TECHNOLOGY (ADT)

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-engineering-technology/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

Code	Title	Hours
Bachelor of Science, Major in Engineering Technology - Concentration in Architectural Design Technology (ADT)		
Core Curriculum		
Component Area I (Communications)		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) [1]		4
Degree Specific Requirements		
ENGL 3330	Introduction to Technical Writing	3
or MATH 3379	Statistical Methods in Practice	
MATH 1314	Pre Calculus Algebra [1]	3
MATH 1316	Plane Trigonometry [1]	3
PHYS 1301 & PHYS 1101	General Physics-Mechanics and Heat and General Physics Laboratory I	4
PHYS 1302 & PHYS 1102	General Physics-Sound, Light, Electricity, and Magnetism and General Physics Laboratory II	4
Major: Foundation		
ETDD 1361	Engineering Graphics	3
ETDD 3310	Product Design & Development	3
ETDD 4339	Advanced Computer-Aided Drafting and Modeling	3
ETDD 4380	Material Hand & Plant Layout	3
ETEC 1010	Engineering Foundations	1
ETEC 1371	Descriptive Geometry	3
ETEC 2382	Manufacturing Processes	3
ETEC 3367	Engineering Materials Techniques	3
ETEC 3374	Time And Motion Study	3
ETEC 3375	Statics	3
ETEC 4099	Engineering Innovation	1
ETEC 4340	Alternative Energy Technology	3
ETEC 4384	Supervisory Personnel Practice	3
ETEC 4391	Work Base Mentorship	3
ETEC 4399	Senior Design II	3
Major: Concentration (Architectural Design Technology)		
ETCM 1363	Wood Frame Construction	3
ETCM 2363	Architectural Design	3
ETCM 3372	Construction Drafting	3
or ETDD 3366	Intro to Virtual and Augmented Reality	
ETCM 4371	Building Information Modeling	3
ETEC 3340	Solar and Wind Energy Systems	3

INDS 1360	Applied Design Theory	3
INDS 2365	Digital Drawing for Interior Design	3
INDS 3377	Interior Codes & Standards	3
Minor: Not Required [3, 4]		
Total Hours		**121**

1 MATH 1314, MATH 1316, MATH 1324, or MATH 1420 satisfy the Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific Requirement. MATH 1420 will also satisfy one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option).

2 Must be taken from BIOL, CHEM, GEOL, or GEOG 1401 only.

3 A minor is not required for this degree program; however, a student has the option to add a minor, but to do so, additional semester credit hours will be needed above the degree program's stated total semester credit hours.

4 All minors can be paired with this degree program.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

First Year

Fall	Hours	Spring	Hours
Component Area I	3	Component Area I	3
Component Area IX[1]	4	Component Area IV	3
ETDD 1361	3	Component Area V	3
ETEC 1010	1	ETEC 1371	3
MATH 1314[1]	3	MATH 1316[1]	3
	14		**15**

Second Year

Fall	Hours	Spring	Hours
Component Area VI	3	Component Area VI	3
Component Area VIII	3	Component Area VII	3
ETCM 1363	3	ETCM 2363	3
INDS 1360	3	ETEC 2382	3
PHYS 1301 & PHYS 1101	4	PHYS 1302 & PHYS 1102	4
	16		**16**

Third Year

Fall	Hours	Spring	Hours
Component Area III[2]	4	Component Area III[2]	4
Component Area VII	3	ENGL 3330 or MATH 3379	3
ETDD 3310	3	ETEC 3367	3
ETEC 3374	3	ETEC 3375	3
INDS 2365	3	INDS 3377	3
	16		**16**

Fourth Year

Fall	Hours	Spring	Hours
ETCM 3372 or ETDD 3366	3	ETCM 4371	3
ETDD 4380	3	ETDD 4339	3
ETEC 3340	3	ETEC 4340	3
ETEC 4099	1	ETEC 4384	3

ETEC 4391	3	ETEC 4399	3
	13		**15**

Total Hours: 121

1 MATH 1314, MATH 1316, MATH 1324, or MATH 1420 satisfy the Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific Requirement. MATH 1420 will also satisfy one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option).

2 Must be taken from BIOL, CHEM, GEOL, or GEOG 1401 only.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

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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 Engineering Technology - Concentration in Architectural Design Technology (ADT) is designed to provide graduates with the following marketable skills:

- Integrated Design Proficiency: Skill in creating detailed architectural plans, utilizing 3D modeling tools (e.g., AutoCAD, SketchUp, Revit) and coordinating seamless integration of structural, electrical, and mechanical designs.
- Code Compliance and Regulations: Ability to navigate and apply building codes and regulations effectively, ensuring designs meet local and national standards.
- Project Management and Communication: Competence in project management, including estimating and scheduling, coupled with strong communication skills to convey design concepts convincingly to stakeholders.
- Sustainable Design and Energy Modeling: Knowledge of sustainable design principles and practices coupled with the ability to use energy modeling tools for assessing environmental impacts in architectural projects.
- Problem-Solving and Adaptability: Capacity to identify and solve complex design challenges coupled with a commitment to continuous learning and adaptability to evolving industry trends and technologies.