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

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>Bachelor of Science, Major in Engineering Technology - Concentration in Architectural Design Technology (ADT)</td>
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### Core Curriculum
(http://catalog.shsu.edu/undergraduateacademic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)

- Component Area I (Communications) 6
- Component Area II (Mathematics) 3
- Component Area III (Life and Physical Science) 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

- ENGL 3330 Introduction to Technical Writing 3
- or MATH 3379 Statistical Methods in Practice 3
- MATH 1314 Pre Calculus Algebra 3
- MATH 1316 Plane Trigonometry 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 3
- ETCM 4371 Building Information Modeling 3
- ETEC 3340 Solar and Wind Energy Systems 3
- IND 1360 Applied Design Theory 3
- IND 2365 Digital Drawing for Interior Design 3
Bachelor of Science, Major in Engineering Technology - Concentration in Architectural Design Technology (ADT)

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.

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<thead>
<tr>
<th>First Year</th>
<th>Fall</th>
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<td>Component Area VIII</td>
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Component Area VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)  

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Fourth Year

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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.

MATH 1420 will also satisfy one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option).

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