

Architecture (BArch)/ Architectural Engineering (BSArchE)

This dual degree program for professionals is founded upon the mutual interests of both architecture and architectural engineering. The program combines the requirements of both degrees and requires six years for completion.

Students in the dual degree program complete the requirements of both degrees. Additional information is available from the undergraduate advisor for architectural engineering.

Admission

Students must meet both schools' admission requirements. Students are advised to contact both schools for specific information about the dual degree program.

Total Hours Required: 195

Plan of Study

The Plan of Study is a suggested four-year course sequence to support academic planning and serves as a helpful guide. Currently enrolled students should meet with their academic advisor to tailor their course selections and timelines to their individual goals and circumstances.

Course	Title	Hours
Year 1		
Semester 1		
ARC 310K	Design I	3
ARC 311K	Visual Communication I	3
ARC 308	Architecture and Society	3
ARE 102	Introduction to Architectural Engineering	1
M 408C	Differential and Integral Calculus	4
<u>First-Year Signature Course (090)</u>		3
Hours		17
Semester 2		
ARC 310L	Design II	3
ARC 311L	Visual Communication II	3
ARC 318K	World Architecture: Origins to 1750	3
M 408D	Sequences, Series, and Multivariable Calculus	4
PHY 303K	Engineering Physics I	3
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	1
Hours		17
Year 2		
Semester 1		
ARC 323D	Design III Intermediate Studio	3
ARC 221K	Visual Communication III	2
ARC 318L	World Architecture: The Industrial Revolution to the Present	3
E M 306	Statics	3
PHY 303L	Engineering Physics II	3
PHY 105N	Laboratory For Physics 302L, 303L, and 317L	1
RHE 306	Rhetoric and Writing	3
Hours		18
Semester 2		
ARC 523E	Design IV Intermediate Studio	5
ARC 333	Site Design	3
C E 311K	Introduction to Computer Methods	3
E M 319	Mechanics of Solids	3

CH 301	Principles of Chemistry I	3
Hours		17
Year 3		
Semester 1		
ARC 523F	Design V Intermediate Studio	5
C E 311S	Probability and Statistics for Civil Engineers	3
C E 329	Structural Analysis	3
C E 324P	Properties and Behavior of Engineering Materials	3
M E 310T	Applied Thermodynamics	3
Hours		17
Semester 2		
ARC 561C	Comprehensive Studio	5
ARE 335	Materials and Methods of Building Construction	3
ARE 346N	Building Environmental Systems	3
M 427J	Differential Equations with Linear Algebra	4
Hours		15
Year 4		
Semester 1		
ARC 342R	Topics in the History of Architecture	3
C E 319F	Elementary Mechanics of Fluids	3
<u>Humanities (040)</u>		3
Mathematics or Science course		3
<u>Social and Behavioral Sciences (080)</u>		3
Hours		15
Semester 2		
ARC 369J	City Architecture	3
ARE 323K	Project Management and Economics	3
C E 331 or C E 335	Reinforced Concrete Design or Elements of Steel Design	3
C E 357	Geotechnical Engineering	3
<u>American and Texas Government (070)</u>		3
Hours		15
Year 5		
Semester 1		
ARC 561E	Advanced Design Studio	5
ARC 335T	Architectural Details and Materials	3
ARE 346P or ARE 371	HVAC Design or Energy Simulation in Building Design	3
E S 333T	Engineering Communication	3
Hours chosen from: Approved technical course		3
Hours		17
Semester 2		
ARE 366	Contracts, Liability, and Ethics	3
ARE 465	Integrated Design Project	4
Hours chosen from: Approved technical courses		6
<u>U.S. History (060)</u>		3
Hours		16
Year 6		
Semester 1		
ARC 561E	Advanced Design Studio	5
ARC 361T	Technical Communication	3
ARC 342R	Topics in the History of Architecture	3
GEO 303	Introduction to Geology	3
<u>U.S. History (060)</u>		3
Hours		17
Semester 2		
ARC 561E	Advanced Design Studio	5
ARC 362	Professional Practice	3
ARC 342R	Topics in the History of Architecture	3
<u>American and Texas Government (070)</u>		3
Hours		14
Total Hours		195

Requirements

All requirements are listed below, starting with the most specialized moving to the most general. Additional requirements may follow the table, so be sure to read the entire page. Some required courses listed below may also satisfy [General Education](#) requirements, including [Core Curriculum](#).

Code	Title	Hours
Degree		
<i>Architecture</i>		
ARC 310K	Design I	3
ARC 310L	Design II	3
ARC 323D	Design III Intermediate Studio	3
ARC 523E	Design IV Intermediate Studio	5
ARC 523F	Design V Intermediate Studio	5
ARC 561C	Comprehensive Studio	5
Hours chosen from:		15
ARC 561E	Advanced Design Studio (may be taken 3 times)	
ARI 560E	Advanced Design Studio (may be taken 3 times)	
ARC 662E	Advanced Design Professional Residency Program Internship	
ARC 578S	Bachelor Design Study, Part II	
ARC 311K	Visual Communication I	3
ARC 311L	Visual Communication II	3
ARC 221K	Visual Communication III	2
ARC 361T	Technical Communication	3
or ARC 361U	Professional Residency Program Internship Technical Communication	
ARC 362	Professional Practice	3
ARC 333	Site Design	3
ARC 335T	Architectural Details and Materials	3
ARC 308	Architecture and Society	3
ARC 318K	World Architecture: Origins to 1750	3
ARC 318L	World Architecture: The Industrial Revolution to the Present	3
Hours chosen from:		9
ARC 342R	Topics in the History of Architecture (taken three times)	
(ARC 342C through ARC 342W may count.)		
ARC 369J	City Architecture	3
Subtotal		80
<i>Architectural Engineering</i>		
ARE 102	Introduction to Architectural Engineering	1
ARE 323K	Project Management and Economics	3
ARE 335	Materials and Methods of Building Construction	3
ARE 346N	Building Environmental Systems	3
ARE 346P	HVAC Design	3
or ARE 371	Energy Simulation in Building Design	
ARE 465	Integrated Design Project	4
ARE 366	Contracts, Liability, and Ethics	3
CH 301	Principles of Chemistry I	3
C E 311K	Introduction to Computer Methods	3
C E 311S	Probability and Statistics for Civil Engineers	3
C E 324P	Properties and Behavior of Engineering Materials	3
C E 319F	Elementary Mechanics of Fluids	3
C E 329	Structural Analysis	3

C E 331	Reinforced Concrete Design	3
or C E 335	Elements of Steel Design	
C E 357	Geotechnical Engineering	3
E M 306	Statics	3
E M 319	Mechanics of Solids	3
E S 333T	Engineering Communication	3
GEO 303	Introduction to Geology	3
M 408D	Sequences, Series, and Multivariable Calculus	4
M 427J	Differential Equations with Linear Algebra	4
M E 310T	Applied Thermodynamics	3
PHY 303K	Engineering Physics I	3
PHY 303L	Engineering Physics II	3
Approved mathematics or science elective		3
Approved technical electives		9
Subtotal		85
<i>Shared hours</i>		
M 408C	Differential and Integral Calculus	4
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	1
PHY 105N	Laboratory For Physics 302L, 303L, and 317L	1
Free electives: Additional coursework to reach total hours required.		0
Subtotal		6
General Education		
Remaining Core Curriculum (42 hours total)		24
Foreign Language other than English, Beginning Proficiency		
Subtotal		24
College Requirements - Architecture		
College Requirements - Engineering		
General University Requirements		
Total Hours		195

Additional Requirements and Policy

Portfolio Review Requirement

As a requirement to enter the advanced studio sequence, all students pursuing architecture degrees must satisfactorily complete the Portfolio Review process and submit a portfolio that summarizes all previous design and visual communication coursework. Guidelines for the Portfolio Review process, including timeline and deadlines, are available from the Undergraduate Office.

The Portfolio Review process provides critical information to the faculty reviewing committee in evaluating the student's progress toward the degree. The faculty reviewing committee, at its discretion, may require the student to retake an intermediate design studio and participate in a final Portfolio Review at the end of the following semester in order to determine eligibility to enter advanced studios.

A student is limited to three Portfolio Review attempts. Students who do not have a satisfactory Portfolio Review by the third attempt are advised to change to the Bachelor of Science in Architectural Studies degree.