

Architectural Engineering

128 credit hours total

YEAR 1		YEAR 2		YEAR 3		YEAR 4	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
*MATH 220 (4) Analytic Geometry and Calculus I KSC-3	MATH 221 (4) Analytic Geometry and Calculus II PR: MATH 220 ≥C	MATH 222 (4) Analytic Geometry and Calculus III PR: MATH 221 ≥C	MATH 340 (4) Elementary Differential Equations PR: MATH 221 ≥C	CE 537 (3) Introduction to Structural Analysis PR: CE533 ≥C	ARE 421 (3) Plan Reading and Systems Communications PR: ARE 295 ≥C, CNS 321 ≥C	ARE 571 (3) Systems Integration and Design PR: ARE 421, 521, 561, 562, 563 (all ≥C)	ARE 671 (4) ARE Capstone PR: ARE 571 ≥C
DEN 160 (1) College of Engineering Orientation	*PHYS 213 (5) Engineering Physics I KSC-4 PR/CO: MATH 220	PHYS 214 (5) Engineering Physics II PR: MATH 221 ≥C, PHYS 213 ≥C	ME 513 (3) Thermodynamics I PR: MATH 222 ≥C, PHYS 213 ≥C	CHM 210 (4) Chemistry I	ME 512 (3) Dynamics PR: CE 333 ≥C, PR/CO: MATH 340	▲ Elective (3) Design	▲ Elective (3) Design
*ENGL 100 (3) Expository Writing I KSC-1	*ENGL 200 (3) Expository Writing II or ENGL 210 Honors English KSC-1 PR: ENGL 100 ≥C	CE 333 (3) Statics PR: MATH 221 ≥C, PHYS 213 ≥C	CE 533 (3) Mechanics of Materials PR/CO: MATH 221 ≥C, PR: CE 333 ≥C - OR - CE 530 ≥C	ARE 551 (3) Electrical Systems I PR: ARE 295 ≥C, PHYS 214 ≥C	ARE 561 (3) Electrical Systems II PR: ARE 551 ≥C	▲ Elective (3) Design	▲ Elective (3) Design/Engineering/Complementary Elective
*COMM 106 (3) Public Speaking KSC-2	CNS 210 (1) Graphic Communication I PR/CO: DEN 160, CNS 220	ARE 295 (3) Introduction to Building Systems Sophomore standing	CE 534 (1) Mechanics of Materials Laboratory PR/CO: CE 533	ARE 552 (3) Mechanical Systems I PR: ARE 295 ≥C, PR/CO: ME 513 ≥C	ARE 562 (3) Mechanical Systems II PR: ARE 552 ≥C	▲ Elective (3) Engineering	* Elective (3) Arts and Humanities KSC-6
* Elective (3) Arts and Humanities KSC-6	CNS 220 (2) Construction Materials PR/CO: DEN 160		CNS 321 (3) Graphic Communications II PR: CNS 210, 220 both ≥C, PR/CO: ARE 010, 012 or CNS 010, 012	ARE 553 (3) Structural Systems I PR: ARE 295 ≥C, CE 533 ≥C	ARE 563 (3) Structural Systems II PR: ARE 553 ≥C, CE 537 ≥C, CHM 210 ≥C	* Elective (3) Social and Behavioral Sciences KSC-5	* Elective (3) Institutionally Designed KSC-7
ARE 010 (0) New Student First-Year Workshop 1 PR/CO: DEN 160	ARE 012 (0) New Student First-Year Workshop 2 PR/CO: DEN 160		* Elective (3) Social and Behavioral Sciences KSC-5		ARE 521 (2) Computer Aided Architectural Engineering PR: ARE 551 ≥C, ARE 552 ≥C, or ARE 553 ≥C	* Elective (3) Institutionally Designed KSC-7	

(14 credit hours)

(15 credit hours)

(15 credit hours)

(17 credit hours)

(16 credit hours)

(17 credit hours)

(18 credit hours)

(16 credit hours)

KEY

- = Prerequisite for another course
- * = K-State Core (KSC) course
- PR = Prerequisite requirement
- ▲ = See department approved electives
- PR/CO = Prerequisite or concurrent requirement
- = Only offered in the semester shown

Architectural Engineering Curriculum Notes

A letter grade of C or better is required for all prerequisite courses prior to taking subsequent departmental prefix courses. A letter grade of C or better is required for all graded departmental prefix courses applied to the degree.

Technical Electives

- Design electives are to be selected from the current approved department list. Minimum 9 hours, maximum 12 hours required.
- Engineering electives are to be selected from the current approved department list. Minimum 3 hours, maximum 6 hours required.
- Complementary electives are to be selected from the approved department list. Minimum 0 hours, maximum 3 hours required.
- Design, Engineering and Complementary elective information can be found at are-cns.k-state.edu/undergrad/are.
- A degree requirement for the Bachelor of Science in architectural engineering includes taking the NCEES FE Exam and reporting individual passing or non-passing results. This action is required as a course completion requirement for ARE 671 – ARE Capstone. Failure to provide the required information will result in a failing grade for ARE 671 and non-completion of the degree.

K-State Core

The K-State Core (KSC) is the university's version of the systemwide general education framework established by the Kansas Board of Regents.

KSC requirement 1 – English (6 hours)

KSC requirement 2 – Communications (3 hours)

KSC requirement 3 – Math and Statistics (3 hours)

KSC requirement 4 – Natural and Physical Sciences (4-5 hours)

KSC requirement 5* – Social and Behavioral Sciences (6 hours)

KSC requirement 6* – Arts and Humanities (6 hours)

KSC requirement 7 – Institutional Electives (6 hours)

To view course lists for each requirement, visit k-state.edu/general-education.

**Requires two courses from two different subject areas.*