

# ARCH

30

TOTAL HOURS REQUIRED  
FOR GRADUATION

# CURRICULUM GUIDE

## Setting a path for your future education

### MASTER OF SCIENCE IN ARCHITECTURE 2023

#### ECOLOGICAL AND SUSTAINABLE DESIGN

Ecological and Sustainable Design (ESD) focuses on the theory and practice of architectural and environmental design that makes maximum use of the same renewable energy flows and material cycling processes by which all other living systems on earth are sustained. It is an approach to design that is holistic in nature, encompassing a concern for ecological systems building technological systems, and socio-cultural/existential systems. Ecological systems are studied not only as the context for architecture, but also as models for design, providing the fundamental principles by which sustainable buildings are designed and operated. Energy and resource conserving building

technologies as well as healthy and ecologically benign building materials are studied so that ecological design principles can be implemented in environmentally appropriate architecture. The emphasis also stresses the socio-economic, political and cultural/ existential context of design as a complexly structured framework within which questions of sustainability must be considered and building designs implemented. The ESD option necessarily involves the development of a broad understanding of architectural design that is as much philosophical as it is practical.

## REQUIRED CURRICULUM CREDITS

### (NON THESIS OPTION)

ARCH	715	Topics in Environmental Systems in Arch.	3
ARCH	725	Architectural Research Methods	3
ARCH	830	Advanced Architectural Studies	5-8
		Electives	16-19
			<b>30</b>

### (RECOMMENDED ELECTIVE CREDITS)

In addition to completing the required courses, students are encouraged to select an area of focus. The Ecological and Sustainable Design emphasis recognizes the interdisciplinary and collaborative nature or the sustainable approach to design. As such, at least six elective credits should be taken outside the Department of Architecture. Students consult with their faculty advisors to develop a program of study that meets their individual needs and interests.

ARCH	716	Topics in Environmental Systems in Arch.	3	IAID	625	Lighting	3
ARCH	725	Architectural Research Methods	3	LAR	720	Public Lands and Natural Resources Law	3
ARCH	865	Advanced Problems in Architectural Design	3	LAR	741	Pro/Landscape Arch Top	3
BIOL	529	Fundamentals of Ecology	3	PHILO	595	Environmental Ethics	3
CE	563	Environmental Engineering Fundamentals	3	PLAN	718	Principles & Strategies of Community Change	3
GEOG	605	Remote Sensing of the Environment	3	PLAN	720	Infrastructure and Plan Implementation	3
GEOG	707	Remote Sensing of Water	3	SOCIO	536	Society & Natural Resources	3
GEOG	761	Human Impact on the Environment	3				

**KANSAS STATE**  
UNIVERSITY

College of Architecture,  
Planning, and Design