

COMPLEMENTARY ELECTIVE LIST

Department of Architectural Engineering and Construction Science and Management Kansas State University

Architectural Engineering

Fall 2007

Complementary electives are upper level courses selected to develop and enhance a student's knowledge of a specific specialty area in Architectural Engineering

Students may take any of the courses on the following approved list to meet the complementary elective requirements. Students are **responsible for checking prerequisites** and meeting any such requirements prior to enrolling in any of the following courses.

ARE	311	CAD in Engineering and Construction (2) (S, Int)	CE	802	Advanced Mech. Of Materials (3) (F, odd years)
ARE	499	Honors Research (Var)	CE	828	Advanced Soil Mechanics (3) (F)
ARE	620	Problems in Architectural Engineering (Var)	CE	833	Advanced Structural Analysis II (3) (S)
ARE	630	Introduction to LEED (V) (Int)	CE	844	Prestressed Concrete Design (3) (F)
ARE	710	Building Energy Analysis (3) (F)	CNS	610	Pre-Engineered Metal Buildings (2) (Int)
ARE	711	Building Energy Codes and Standards (2) (S)	CNS	629	Tilt-up Concrete Structures (2) (Int)
ARE	720	Topics in Architectural Engr. (2)	CNS	634	Building Systems Commissioning (2) (F)
ARE	723	Timber Structures (3) (S)	CNS	738	Mechanical and Electrical Estimating (2) (F, S)
ARE	724	Advanced Sanitation Systems (3) (F)	DEN	550	Engineering Law (3) (S)
ARE	731	Advanced Lighting Design (3) (S)	EECE	525	Electronics I (3) (F, S)
ARE	734	Advanced Mechanical Systems Design (3) (F, S)	EECE	526	Electronics II (3) (F, S)
ARE	735	Electrical Systems Design (3) (F, S)	EECE	557	Electromagnetic Theory I (4) (F, S)
ARE	740	Environmental Control Systems in Buildings (3) (S)	EECE	581	Energy Conversion I (3) (F, S)
ARE	741	Building Communication Sys. (3) (F)	EECE	589	Circuits and Machines Lab (2) (F, S)
ARE	760	Masonry Structural Design (3) (S)	EECE	685	Power Systems Design (3) (F)
ARE	780	Advanced Structural Topics (3) (S)	EECE	686	Power Systems Protection (3) (S)
BAE	640	Instrumentation and Control for Biological Systems (3) (S)	EECE	758	Electromagnetic Theory II (3) (F)
BAE	651	Air Pollution Engineering (3) (S)	IMSE	555	Industrial Facilities Layout and Design (3) (F, S)
CE	528	Foundation Engineering (3) (F)	MATH	551	Applied Matrix Theory (3) (F, S)
CE	550	Water Resource Engg (3) (F)	ME	573	Heat Transfer (3) (F, S)
CE	552	Hydraulic Engineering (3) (S)	ME	622	Environmental Engineering I (3) (S)
CE	703	Responsibility in Engineering (3) (S)	ME	720	Intermediate Fluid Mechanics (3) (S)
CE	728	Advanced Geotechnical Design (3) (S)	PHYS	651	Introduction to Optics (3) (F)
CE	732	Advanced Structural Analysis I (3) (F)			
CE	742	Advanced Steel Design (3) (S)			
CE	743	Adv. Reinforced Concrete (3) (S)			

Course offerings: F = Fall, S = Spring, U = Summer, Int = Intersession