

**KANSAS STATE UNIVERSITY DEPARTMENT OF CIVIL ENGINEERING
MASTER OF SCIENCE IN CIVIL ENGINEERING/STRUCTURES ENGINEERING**

Re-approved by Faculty on 05/09/2022

On-Campus and DCE Students:

(Program of Study must include a minimum of 15 credit hours in Civil Engineering)

<u>At Least 9 Credit Hours Required:</u>	<u>Credit</u>
CE 732 - Advanced Str Anal I	3
CE 742 - Advanced Steel Design	3
CE 743 - Advanced R/C Theory	3
CE 802 - Advanced Mech of Materials	3

<u>At Least 12 Credit Hours Required¹:</u>	
CE 741 - Civil Engg Materials II	3
CE 745 - Structural Dynamics	3
CE 833 - Advanced Str Anal II	3
CE 834 - Str Dsgn of Conc with FRP	3
CE 837 - Structural Stability	3
CE 844 - Prestressed Conc Design	3
CE 803 - Numerical and Analytic Techniques for Engineers	3
MATH 551 - Applied Matrix Theory	3
MATH 632 - Elem Part Diff Equations	3

Suggested Electives:

ARE 722 - Bildg Loads & Compt Aided Str Anal & Dsgn	3		
ARE 723 - Timber Structures	3	IMSE 822 - Advanced Engg Economy	3
ARE 725 - Cold-Formed Steel Design	3	MATH - 630 Intro to Complex Analysis	3
ARE 726 - Masonry Structural Design	3	MATH - 633 Advanced Calculus I	3
ARE 729 - Building Seismic Design	3	ME 610 - Intro to Finite Elements	3
CE 680 - Economics of Des & Constr	3	ME 651 - Intro to Composites	3
CE 690 - Precast Concrete Building Design	3	ME 738 - Experimental Stress Analysis	3
CE 728 - Adv Geotechnical Design	3	ME 760 - Engineering Analysis I	3
CE 822 - Shear Strength and Slope Stability	3	ME 831 - Boundary Layer Theory	3
CE 816-B - Abaqus Applications in Geo- systems	3	ME 836 - Introduction to Fracture	3
CIS 635 - Intro to Computer Based Knowledge Systems	3	ME 862 - Finite Elements	3
CIS 730 - Principles of Artificial Intelligence	3	ME 871 - Mechanics of Composite	3
EECE 670 - Engg Appl of Machine Intelligence	3		

¹Course substitutions to accommodate specific research areas or topics of particular interest will be subject to the approval of the major advisor and supervisory committee.

²CE 802 and ME 802 are cross listed.