

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

Re-approved by Faculty on 04/07/2017

**On-Campus and DCE Students:**

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

At Least 9 Credit Hours Required: Credit

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

At Least 12 Credit Hours Required<sup>1</sup>:

CE 641 Civil Engg Materials I	3
CE 741 Civil Engg Materials II	3
CE 745 Structural Dynamics	3
CE 833 Advanced Str Anal II	3
CE 837 Structural Stability	3
CE 844 Prestressed Conc Design	3
CE 803 Numerical and Analytic Techniques for 3 Engineers	3
MATH 551 Applied Matrix Theory	3
MATH 632 Elem Part Diff Equations	3

Suggested Electives:

ARE 723 - Timber Structures	3		
ARE 725 - Cold-Formed Steel Design	3	MATH 630 Intro to Complex Anal	3
ARE 726 - Masonry Structural Design	3	IMSE 836 Oprtns Res in Artificial intelligence	3
ARE 729 - Building Seismic Design	3	MATH 633 Advanced Calculus I	3
CE 680 Economics of Des & Constr	3	ME 610 Intro to Finite Elements	3
CE 728 Adv Geotechnical Design	3	ME 650 Intro to Computer-Aided Design	3
CE 801 Comput Methods in CE	3	ME 651 Intro to Composites	3
CE 822 Shear Strength and Slope Stability	3	ME 736 Applied Elasticity	3
CE 816-A Str. Dsgn. of Conc. with FRP	3	ME 738 Experimental Stress Anal	3
CE 816-B Abaqus Applications in Geo-systems	3	ME 760 - Engineering Analysis I	3
CE816-C Dsgn. of Str. under Dyn. Loads	3	ME 831 - Boundary Layer Theory	3
CIS 635 Intro to Computer Based Knowledge	3	ME 836 - Introduction to Fracture Mechanics	3
CIS 730 Prin of Artificial Intelligence	3	ME 862 - Finite Elements	3
EECE 670 Engg Appl of Machine Intelligence	3	ME 871 - Mechanics of Composite Materials	3
IMSE 822 Advanced Engg Economy	3		

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

CE 802 and ME 802 are cross-listed.