Solid Mechanics, Design and Manufacturing (SMDM) Four Year Graduate Course Projection
Latest Revision 1/8/2020

Course No.	Course Title	M	2018			2019			2020			2021		
			S	SS	F	S	SS	F	S	SS	F	S	SS	F
	Core Courses – Offered on EDGE													
EML 5233	Failure of Materials in Mechanical Design	2	♦			♦			♦			♦		
EML 5526	Finite Element Analysis	2			♦			♦			♦			♦
EML 5533	Applied Elasticity and Adv Solid Mech	2			♦			♦			♦			♦
EML 6324	Fundamentals of Production Engineering	2			♦			♦			♦			♦
EGM 6611	Continuum Mechanics	2	♦			♦			♦			♦		
	Elective Courses													
EML 5045	Comp Meth for Design and Manufacturing	4							●					
EML 5318	Computer Control of Machines and Processes	4			♦						♦			
EML 6267	Advanced Manuf Processes	4							♦					
EML 6323	Nontraditional Manufacturing	4	♦			♦						♦		
EML 6934	Surface Engineering/Tribology	4				●						●		
EML 6934	Frontier in Soft Matter Biophysics	4						●						●
EML 6934	High Strain Rate Mech of Materials	6						♦						
EML 6934	Energy Storage (K. Aifantis)								●					
EGM 5111L	Experimental Stress Analysis	4			●						●			
EGM 5584	Biomechanics of Soft Tissue	4						●						●
EGM 6352	Advanced Finite Element Analysis	2	●			●			♦			♦		
EGM 6365	Structural Optimization	3			♦						♦			
EGM 6570	Fracture Mechanics	4	♦									♦		
EGM 6671	Inelastic Materials / Dislocation Plasticity	4	♦			♦			♦			♦		
EGM 6934	Computational Nanomechanics/Nanomatl	4							●					
EAS 6242	Advanced Structural Composites	4						♦						♦
EAS 6934	VVU&Q	3			♦						♦			
EAS 6939	Aerospace Structural Composites (+UG)	2	●			●			♦			♦		
EAS 6939	Approximation and Opt in Eng Des.	3			♦						♦			
	Computational Courses													
EGM 6321	Principles of Engineering Analysis 1	2			♦			♦			♦			♦
EGM 6322	Principles of Engineering Analysis 2	2	♦			♦			♦			♦		
EGM 6341	Numerical Methods of Engineering Analysis I	2	♦			♦			♦			♦		
	Totals		9		9	9		9	9		9	9		8

M-Denotes number of semesters between course offerings.
♦-Denotes course also offered on EDGE.

Solid Mechanics, Design and Manufacturing (SMDM) Four Year Graduate Course Projection
Latest Revision 1/8/2020

Course No.	Course Title	M	2022			2023			2024			2025		
			S	SS	F	S	SS	F	S	SS	F	S	SS	F
	Core Courses – Offered on EDGE													
EML 5233	Failure of Materials in Mechanical Design	2	♦			♦			♦			♦		
EML 5526	Finite Element Analysis	2			♦			♦			♦			♦
EML 5533	Applied Elasticity and Adv Solid Mech	2			♦			♦			♦			♦
EML 6324	Fundamentals of Production Engineering	2			♦			♦			♦			♦
EGM 6611	Continuum Mechanics	2	♦			♦			♦			♦		
	Elective Courses													
EML 5045	Comp Meth for Design and Manufacturing	4	●						●					●
EML 5318	Computer Control of Machines and Processes	4			♦						♦			
EML 6267	Advanced Manufacturing Processes	4	♦						♦					
EML 6323	Nontraditional Manufacturing	4				♦						♦		
EML 6934	Surface Engineering/Tribology	4				●						●		
EML 6934	Frontier in Soft Matter Biophysics	4						●						●
EML 6934	High Strain Rate Mech of Materials	6	♦											♦
EGM 5111L	Experimental Stress Analysis	4			●						●			
EGM 5584	Biomechanics of Soft Tissue	4						●						●
EGM 6352	Advanced Finite Element Analysis	4	●			●			●			●		
EGM 6365	Structural Optimization	3			♦						♦			
EGM 6570	Fracture Mechanics	4				♦						♦		
EGM 6671	Inelastic Materials / Dislocation Plasticity	4				♦						♦		
EGM 6934	Computational Nanomechanics/Nanomatl	4	●						●					
EAS 6242	Advanced Structural Composites	4						♦						♦
EAS 6934	VVU&Q	3			♦						♦			
EAS 6939	Aerospace Structural Composites (+UG)	2	●			●			●			●		
EAS 6939	Approximation and Opt in Eng Des.	3			♦						♦			
	Computational Courses													
EGM 6321	Principles of Engineering Analysis 1	2			♦			♦			♦			♦
EGM 6322	Principles of Engineering Analysis 2	2	♦			♦			♦			♦		
EGM 6341	Numerical Methods of Engineering Analysis I	2	♦			♦			♦			♦		
	Totals		10		9	9		9	9		9	9		8

M-Denotes number of semesters between course offerings.
♦-Denotes course also offered on EDGE.