



DEPARTMENT OF MECHANICAL ENGINEERING

MECHANICAL DESIGN ANALYSIS

CERTIFICATE CHECKLIST

School of Engineering

STUDENT NAME _____ **SCU ID#** _____

REQUIRED COURSES (12 Units):

Course #	Title	Term Taken	Grade	Units	Units Taken
CENG 205	Finite Element Methods I			2	
CENG 206	Finite Element Methods II			2	
CENG 207	Finite Element Methods III			2	
MECH 325	Computational Geometry for Computer-Aided Design and Manufacture			2	
MECH 334	Elasticity			2	
MECH 415	Optimization in Mechanical Design			2	

ELECTIVES COURSES (select any 4 units)

AMTH 220	Numerical Analysis I			2	
AMTH 221	Numerical Analysis II			2	
AMTH 308	Mathematical Modeling I			2	
AMTH 309	Mathematical Modeling II			2	
AMTH 370	Optimization Techniques I			2	
AMTH 371	Optimization Techniques II			2	
CENG 211	Advanced Strength of Materials			4	
CENG 214	Theory of Elasticity			4	
CENG 222	Advanced Structural Analysis			4	
MECH 268	Computational Fluid Mechanics I			2	
MECH 269	Computational Fluid Mechanics II			2	
	TOTAL				

G.P.A. GRE test requirement for admission to the MSME degree program
 GRE required GRE waived

Chair's Signature

Date