

# MECHANICAL DESIGN CONCENTRATION

BMED 330 or ME 329	Intermediate Biomedical Design Mechanical Systems Design	4
CE 207	Mechanics of Materials II <sup>1</sup>	2
IME 141	Manufacturing Processes: Net Shape	1
MATH 344	Linear Analysis II	4
ME 228	Engineering Design Communication	2
ME 251	Introduction to Detailed Design with Solid Modeling	2
ME 328	Design for Strength and Stiffness	4
Approved Technical Electives		
Select from the following:		7-8
BMED/CE/ME 404	Applied Finite Element Analysis	
BMED 525	Skeletal Tissue Mechanics	
IME 418	Product-Process Design	
IME 430	Quality Engineering	
IME 435	Reliability for Design and Testing	
IME 527	Design of Experiments	
ME 318	Mechanical Vibrations	
ME 326	Intermediate Dynamics	
ME 401	Stress Analysis	
ME 402	Orthopedic Biomechanics	
ME 403	Access by Design: Introduction to Rehabilitation Engineering	
ME 410	Experimental Methods in Mechanical Design I	
ME 412	Composite Materials Analysis and Design	
Approved Electives		
Select from the following:		3-5
BIO 232	Human Anatomy and Physiology II	
BIO 302	Human Genetics	
BIO 303	Survey of Genetics	
CHEM 312	Organic Chemistry: Fundamentals and Applications	
CHEM/MATE 446	Surface Chemistry of Materials	
<b>Total units</b>		<b>29-32</b>

<sup>1</sup> For students following the General Curriculum or Mechanical Design Concentration in BS Biomedical Engineering, CE 208 (5) may substitute for both CE 204 (3) and CE 207 (2).