## **Physical Sciences**

ANTURO 122	Course Not Available			
ANTHRO 132 ANTHRO 134	Course Not Available	4		
ANTHRO 134A	Analysis of the Archaeological Record	4		
ARCH 39A	Field Course in Archaeological Methods	6 2-4		
ARCH 140	Freshman/Sophomore Seminar Energy and Environment	2 <del>-4</del>		
ARCH 140 ARCH 149	<b>0</b> ,	1-4		
ARCH 150	Special Topics in Energy and Environment Introduction to Structures	4		
		4		
•	ourse, except ASTRON 100 Introduction to Robotics	4		
CHEM: Any course, except CHEM 20, CHEM 130A, and CHEM 130B				
CHM ENG 140	Introduction to Chemical Process Analysis	4		
CHM ENG 141	Chemical Engineering Thermodynamics	4		
CHM ENG 142	Chemical Kinetics and Reaction Engineering	4		
CHM ENG 150A	Transport Processes	4		
CHM ENG 150B	Transport and Separation Processes	4		
CHM ENG 154	Chemical Engineering Laboratory	4		
CHM ENG 160	Chemical Process Design	4		
CHM ENG 162	Dynamics and Control of Chemical Processes	4		
CHM ENG 170A	Biochemical Engineering	3		
CHM ENG 176	Principles of Electrochemical Processes	3		
CHM ENG 179	Process Technology of Solid-State Materials Devices	3		
CIV ENG 70	Engineering Geology	3		
CIV ENG 100	Elementary Fluid Mechanics	4		
CIV ENG 103	Introduction to Hydrology	3		
CIV ENG C106	Air Pollution	3		
CIV ENG 111	Environmental Engineering	3		
CIV ENG 112	Environmental Engineering Design	3		
CIV ENG 115	Water Chemistry	3		
CIV ENG C116	Chemistry of Soils	3		
CIV ENG 122N	Design of Steel Structures	3		
CIV ENG 123N	Design of Reinforced Concrete Structures	3		
CIV ENG 124	Structural Design in Timber	3		
CIV ENG 153	Transportation Facility Design	3		
CIV ENG 166	Construction Engineering	3		
CIV ENG 171	Introduction to Geological Engineering	3		
CIV ENG 173	Groundwater and Seepage	3		
CIV ENG 175	Geotechnical and Geoenvironmental Engineering	3		
CIV ENG 177	Foundation Engineering Design	3		
COMPSCI 61C	Machine Structures	4		
COMPSCI 61CL	Machine Structures (Lab-Centric)	4		
COMPSCI 188	Introduction to Artificial Intelligence	4		
EL ENG 40	Introduction to Microelectronic Circuits	4		
EL ENG 42	Introduction to Digital Electronics	3		
EL ENG 100	Electronic Techniques for Engineering	4		
EL ENG 117	Electromagnetic Fields and Waves	4		
EL ENG 121	Introduction to Digital Communication Systems	4		
EL ENG 122	Introduction to Communication Networks	4		
EL ENG 123	Digital Signal Processing	4		

EL ENG C125	Course Not Available			
EL ENG 130	Integrated-Circuit Devices	4		
EL ENG 140	Linear Integrated Circuits	4		
EL ENG 141	Introduction to Digital Integrated Circuits	4		
EL ENG 142	Integrated Circuits for Communications	4		
EL ENG 143	Microfabrication Technology	4		
ENE,RES C100	Energy and Society	4		
ENE,RES 102	Quantitative Aspects of Global Environmental Problems	4		
ENGIN 45	Properties of Materials	3		
ENGIN 117	Methods of Engineering Analysis	3		
ENV SCI 10	Introduction to Environmental Sciences	3		
EPS: Any course, except EPS 39A, EPS 60, EPS C100, EPS 104, EPS 106AC, and EPS 120				
ESPM 2	The Biosphere	3		
ESPM 15	Introduction to Environmental Sciences	3		
ESPM 120	Soil Characteristics	3		
ESPM C128	Chemistry of Soils	3		
ESPM C129	Biometeorology	3		
ESPM 172	Photogrammetry and Remote Sensing	3		
ESPM C180	Air Pollution	3		
ESPM 181A	Fire Ecology	3		
GEOG 1	Global Environmental Change	4		
GEOG 40	Introduction to Earth System Science	4		
GEOG C82	Oceans	3		
GEOG C139	Atmospheric Physics and Dynamics	3		
GEOG 140A	Physical Landscapes: Process and Form	4		
GEOG 144	Principles of Meteorology	3		
GEOG 171	Special Topics in Physical Geography	3		
HISTORY 181B	Topics in the History of the Physical Sciences: Modern Physics: From the Atom to Big Science	4		
IND ENG 130	Methods of Manufacturing Improvement	3		
IND ENG 131	Discrete Event Simulation	3		
IND ENG 140	Course Not Available			
IND ENG 150	Production Systems Analysis	3		
IND ENG 161	Operations Research II	3		
IND ENG 162	Linear Programming	3		
IND ENG 165	Engineering Statistics, Quality Control, and	3		
	Forcasting			
IND ENG 180	Senior Project	4		
INTEGBI C82	Oceans	3		
L & S C70T	The Planets	3		
L & S C70U	Introduction to General Astronomy	4		
L & S C70V	Descriptive Introduction to Physics	3		
L & S C70W	Physics and Music	2		
L & S C70Y	Earthquakes in Your Backyard	3		
MAT SCI 102	Bonding, Crystallography, and Crystal Defects	3		
MAT SCI 103	Phase Transformations and Kinetics	3		
MAT SCI 104	Materials Characterization	4		
MAT SCI 111	Properties of Electronic Materials	4		
MAT SCI 112	Corrosion (Chemical Properties)	3		
MAT SCI 117	Properties of Dielectric and Magnetic Materials	3		
MAT SCI 120	Materials Production	3		

MAT SCI 121	Metals Processing	3	
MAT SCI 122	Ceramic Processing	3	
MAT SCI 123	Semiconductor Processing	3	
MAT SCI 125	Thin-Film Materials Science	3	
MEC ENG 101	Introduction to Lean Manufacturing Systems	3	
MEC ENG 104	Engineering Mechanics II	3	
MEC ENG 106	Fluid Mechanics	3	
MEC ENG 109	Heat Transfer	3	
MEC ENG 110	Introduction to Product Development	3	
MEC ENG 122	Processing of Materials in Manufacturing	3	
MEC ENG 130	Design of Planar Machinery	3	
MEC ENG 132	Dynamic Systems and Feedback	3	
MEC ENG 133	Mechanical Vibrations	3	
MEC ENG C134	Feedback Control Systems	4	
MEC ENG 135	Design of Microprocessor-Based Mechanical Systems	4	
MEC ENG 140	Combustion Processes	3	
MEC ENG 151	Advanced Heat Transfer	3	
MEC ENG 163	Engineering Aerodynamics	3	
MEC ENG 170	Engineering Mechanics III	3	
MEC ENG 173	Fundamentals of Acoustics	3	
MEC ENG 175	Intermediate Dynamics	3	
MEC ENG 185	Introduction to Continuum Mechanics	3	
NUC ENG 92	Course Not Available	2,3	
NUC ENG 107	Introduction to Imaging	3	
NUC ENG 124	Radioactive Waste Management	3	
NUC ENG 150	Introduction to Nuclear Reactor Theory	4	
NUC ENG 161	Nuclear Power Engineering	4	
NUC ENG 162	Radiation Biophysics and Dosimetry	3	
NUC ENG 180	Introduction to Controlled Fusion	3	
PHYSICS: Any course, except PHYSICS 39			
PUB POL C184	Energy and Society	4	