

**Course Requirements and Registration Priorities
School of Science and Technology (Undergraduate), Fall 2016**

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
SST											
Biological Science											
1	BIOL 101	Biology for non-Science majors	3	6							
2	BIOL 110	Modern Biology I with Lab	4	8			BIOL 110 Modern Biology I (C- and above) OR BIOL 110 Modern Biology I Lab (C- and above)	1 year UG SST	SST	SHSS	
3	BIOL 230	Human Anatomy and Physiology I	4	8	((BIOL 110 Modern Biology I (C- and above) AND BIOL 110 Modern Biology I Lab (C- and above)) OR BIOL 110 Modern Biology I with Lab (C- and above) OR PREM 110 Pre-med Biology I with lab (C- and above)) AND ((BIOL 120 Modern Biology II (C- and above) AND BIOL 120 Modern Biology II Lab (C- and above)) OR BIOL 120 Modern Biology II with Lab (C- and above))			Biological Sciences	SST	SHSS	
4	BIOL 305	Introduction to Microbiology with Lab	4	8	((BIOL 110 Modern Biology I (C- and above) AND BIOL 110 Modern Biology I Lab (C- and above)) OR BIOL 110 Modern Biology I with Lab (C- and above) OR PREM 110 Pre-med Biology I with lab (C- and above)) AND (BIOL 120 Modern Biology II with Lab (C- and above) OR (BIOL 120 Modern Biology II (C- and above) AND BIOL 120 Modern Biology II Lab (C- and above)))			Biological Sciences	SST	SHSS	

5	BIOL 320	Developmental Biology with Lab	4	8	((BIOL 110 Modern Biology I (C- and above) AND BIOL 110 Modern Biology I Lab (C- and above)) OR PREM 110 Pre-med Biology I with lab (C- and above) OR BIOL 110 Modern Biology I with Lab (C- and above)) AND (BIOL 120 Modern Biology II with Lab (C- and above) OR (BIOL 120 Modern Biology II (C- and above) AND BIOL 120 Modern Biology II Lab (C- and above))) AND ((BIOL 220 Molecular Biology of Cell (C- and above) AND BIOL 220 Molecular Biology of Cell Lab (C- and above)) OR BIOL 301 Molecular Biology of Cell with Lab (C- and above) OR BIOL 231 Human Anatomy and Physiology II (C- and above))		Biological Sciences	SST	SHSS	
6	BIOL 340	Introduction to Bioinformatics with Lab	4	8	((BIOL 110 Modern Biology I (C- and above) AND BIOL 110 Modern Biology I Lab (C- and above)) OR PREM 110 Pre-med Biology I with lab (C- and above) OR BIOL 110 Modern Biology I with Lab (C- and above)) AND (BIOL 120 Modern Biology II with Lab (C- and above) OR (BIOL 120 Modern Biology II (C- and above) AND BIOL 120 Modern Biology II Lab (C- and above))) AND ((BIOL 220 Molecular Biology of Cell (C- and above) AND BIOL 220 Molecular Biology of Cell Lab (C- and above)) OR BIOL 301 Molecular Biology of Cell with Lab (C- and above) OR BIOL 231 Human Anatomy and Physiology II (C- and above))		Biological Sciences	SST	SHSS	
7	BIOL 352	Biology of Cancer	3	6	(BIOL 110 Modern Biology I (C- and above) OR BIOL 110 Modern Biology I with Lab (C- and above) OR PREM 110 Pre-med Biology I with lab (C- and above)) AND (BIOL 120 Modern Biology II (C- and above) OR BIOL 120 Modern Biology II with Lab (C- and above)) AND (BIOL 220 Molecular Biology of Cell (C- and above) OR BIOL 301 Molecular Biology of Cell with Lab (C- and above) OR BIOL 231 Human Anatomy and Physiology II (C- and above))		Biological Sciences	SST	SHSS	

8	BIOL 355	Critical Research Reasoning	3	6	(BIOL 120 Modern Biology II with Lab (C- and above) OR (BIOL 120 Modern Biology II (C- and above) AND BIOL 120 Modern Biology II Lab (C- and above))) AND (BIOL 231 Human Anatomy and Physiology II (C- and above) OR BIOL 301 Molecular Biology of Cell with Lab (C- and above) OR (BIOL 220 Molecular Biology of Cell (C- and above) AND BIOL 220 Molecular Biology of Cell Lab (C- and above)))		Biological Sciences	SST	SHSS	
9	BIOL 399	Biology Internship - 2B	3	6			Through Add form only			
10	BIOL 410	Introduction to Immunology	3	6	(BIOL 110 Modern Biology I (C- and above) OR BIOL 110 Modern Biology I with Lab (C- and above) OR PREM 110 Pre-med Biology I with lab (C- and above)) AND (BIOL 120 Modern Biology II (C- and above) OR BIOL 120 Modern Biology II with Lab (C- and above)) AND ((BIOL 220 Molecular Biology of Cell (C- and above) OR BIOL 301 Molecular Biology of Cell with Lab (C- and above)) OR BIOL 210 Introduction to Microbiology (C- and above) OR BIOL 231 Human Anatomy and Physiology II (C- and above))		Biological Sciences	SST	SHSS	
11	BIOL 455	Biotechnology	3	6	BIOL 301 Molecular Biology of Cell with Lab (C- and above)		Biological Sciences	SST	SHSS	
12	BIOL 470	Advanced Cell Biology	3	6	BIOL 301 Molecular Biology of Cell with Lab (C- and above) AND BIOL 341 Biochemistry I (C- and above)		Biological Sciences	SST	SHSS	
13	BIOL 490	Graduation Project 1	4	8			Through Add form only			
Chemistry										
14	CHEM 090	Chemistry for Non-Science majors	3	6						
15	CHEM 091	Survey of Physical Science	3	6						
16	CHEM 101	General Chemistry I	3	6			1 year UG SST	SST	SHSS	
17	CHEM 101L	General Chemistry I lab	1	2		CHEM 101 General Chemistry I (C and above)	1 year UG SST	SST	SHSS	
18	CHEM 102	General Chemistry II	3	6	CHEM 101 General Chemistry I (C and above)		Chemistry	SST	SHSS	

19	CHEM 102L	General Chemistry II lab	1	2	CHEM 101L General Chemistry I lab (C and above)	CHEM 102 General Chemistry II (C and above)		Chemistry	SST	SHSS	
20	CHEM 189c	Independent Study	3	6							
21	CHEM 211	Organic Chemistry I	3	6	CHEM 102 General Chemistry II (C and above)			Chemistry	SST	SHSS	
22	CHEM 211L	Organic Chemistry I Lab	2	4	CHEM 102L General Chemistry II lab (C and above)	CHEM 211 Organic Chemistry I (C and above)		Chemistry	SST	SHSS	
23	CHEM 212	Organic Chemistry II	3	6	CHEM 211 Organic Chemistry I (C and above) OR CHEM 191 Chemistry I for Engineers (C and above)			Chemistry	SST	SHSS	
24	CHEM 212L	Organic Chemistry II Lab	2	4	CHEM 211L Organic Chemistry I Lab (C and above)	CHEM 212 Organic Chemistry II (C and above) OR CHEM 292 Organic Chemistry for Biologists II (C and above)		Chemistry	SST	SHSS	
25	CHEM 220	Quantitative Chemical Analysis with lab	4	8	CHEM 102 General Chemistry II (C and above) AND CHEM 102L General Chemistry II lab (C and above)			Chemistry	SST	SHSS	
26	CHEM 331	Physical Chemistry I	3	6	CHEM 220 Quantitative Chemical Analysis with lab (C and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (C and above)			Chemistry	SST	SHSS	
27	CHEM 331L	Physical Chemistry Lab	1	2		CHEM 331 Physical Chemistry I (C and above)		Chemistry	SST	SHSS	
28	CHEM 350	Descriptive Inorganic Chemistry	3	6	CHEM 102 General Chemistry II (C and above)			Chemistry	SST	SHSS	
29	CHEM 410	Structural Spectroscopy	4	8	CHEM 212 Organic Chemistry II (C and above)			Chemistry	SST	SHSS	
30	CHEM 431	Computational Chemistry	3	6	CHEM 332 Physical Chemistry II (C and above) AND (CSCI 111 Web Programming & Problem Solving (C- and above) OR CSCI 150 Fundamentals of Programming (C- and above) OR CSCI 151 Programming for Scientists and Engineers (C- and above))			SST			

31	CHEM 450	Advanced Inorganic Chemistry	4	8	CHEM 212 Organic Chemistry II (C and above) AND CHEM 212L Organic Chemistry II Lab (C and above) AND CHEM 350 Descriptive Inorganic Chemistry (C and above)		Chemistry	SST	SHSS	
32	CHEM 490	Nanochemistry	3	6	CHEM 331 Physical Chemistry I (C and above) AND CHEM 350 Descriptive Inorganic Chemistry (C and above)		Chemistry	SST	SHSS	
Computer Science										
33	CSCI 151	Programming for Scientists and Engineers	4	8		ROBT 102 Programming for robotics and physics (C- and above) OR CSCI 150 Fundamentals of Programming (C- and above)	1 year UG SST	SST	SHSS	
34	CSCI 231	Computer Systems and Organization	3	6	CSCI 152 Performance and Data Structures (C- and above)		Computer Science	SST	SHSS	
35	CSCI 262	Software Project Management	3	6	CSCI 152 Performance and Data Structures (C- and above)		Computer Science	SST	SHSS	
36	CSCI 281	Human-Computer Interaction	3	6	CSCI 152 Performance and Data Structures (C- and above)		Computer Science	SST	SHSS	
37	CSCI 325	Introduction to Parallel Systems and GPU Programming	3	6	CSCI 332 Operating Systems (C- and above)		Computer Science	SST	SHSS	
38	CSCI 330	Mobile Computing	3	6	CSCI 332 Operating Systems (C- and above)		Computer Science	SST	SHSS	
39	CSCI 341	Database Systems	3	6	CSCI 152 Performance and Data Structures (C- and above)		Computer Science	SST	SHSS	
40	CSCI 361	Software Engineering	3	6	CSCI 152 Performance and Data Structures (C- and above)		Computer Science	SST	SHSS	
41	CSCI 390	Artificial Intelligence	3	6	CSCI 152 Performance and Data Structures (C- and above)		Computer Science	SST	SHSS	
42	CSCI 398	Directed Study	3	6						
43	CSCI 408	Senior Project I	3	6			CS major only			
44	CSCI 434	Information Security	3	6		CSCI 333 Computer Networks (D and above)	Computer Science	SST	SHSS	
45	CSCI 471	Complexity and Computability	3	6	MATH 251 Discrete Mathematics (C- and above)		Computer Science	SST	SHSS	
Mathematics										
46	MATH 109	Mathematical Discovery	3	6			SHSS	SST		
47	MATH 161	Calculus I	4	8			1 year UG SST	SST	SHSS	

48	MATH 162	Calculus II	4	8	MATH 161 Calculus I (C and above)			3 year UG SHSS, 4 year UG SHSS, SST	SHSS		
49	MATH 251	Discrete Mathematics	3	6	MATH 162 Calculus II (C and above)			Computer Science, Physics, Robotics and Mechatronics, Undeclared	Mathematics, SHSS		
50	MATH 263	Calculus III	4	8	MATH 162 Calculus II (C and above)			4 year UG SHSS, SST	SHSS		
51	MATH 273	Linear Algebra with Applications	4	8	MATH 161 Calculus I (C and above)	MATH 162 Calculus II (C and above)		4 year UG SHSS, SST	SHSS		
52	MATH 274	Introduction to Differential Equations	3	6	MATH 162 Calculus II (C and above) AND MATH 273 Linear Algebra with Applications (C and above)			4 year UG SHSS, SST	SHSS		
53	MATH 301	Introduction to Number Theory	3	6	MATH 273 Linear Algebra with Applications (C- and above) AND MATH 162 Calculus II (C- and above)			Mathematics	SHSS, SST		
54	MATH 310	Applied Statistical Methods	3	6	MATH 161 Calculus I (C- and above)		SOC 203 Quantitative Methods in Sociology (C- and above) OR PLS 211 Quantitative Methods (C- and above)	2 year UG SST Biological Sciences, 2 year UG SST Computer Science, 3 year UG SST Biological Sciences, 3 year UG SST Computer Science, 4 year UG SST Biological Sciences, 4 year UG SST Computer Science	Mathematics, SHSS		
55	MATH 321	Probability	3	6	MATH 162 Calculus II (C and above)		ECON 211 Economic Statistics (C- and above) OR PLS 211 Quantitative Methods (C- and above)	4 year UG SHSS, Computer Science, Mathematics	SHSS, SST		
56	MATH 351	Numerical Methods with Applications	3	6	MATH 274 Introduction to Differential Equations (C- and above) AND MATH 263 Calculus III (C- and above)			Mathematics	SHSS, SST		
57	MATH 355	Introduction to Proofs	3	6	MATH 162 Calculus II (C- and above) AND MATH 273 Linear Algebra with Applications (C- and above)			Mathematics	SHSS, SST		
58	MATH 361	Real Analysis I	3	6	MATH 263 Calculus III (C- and above)			Mathematics	SHSS, SST		
59	MATH 399	Internship	3	6							

60	MATH 402	Abstract Algebra I	3	6	MATH 273 Linear Algebra with Applications (C- and above)			Mathematics	SHSS, SST		
61	MATH 411	Linear Programming	3	6	MATH 273 Linear Algebra with Applications (C- and above) AND MATH 263 Calculus III (C- and above)			Mathematics	SHSS, SST		
62	MATH 425	Stochastic Processes	3	6	MATH 321 Probability (C- and above)			Mathematics	SHSS, SST		
63	MATH 440	Regression Analysis	3	6	MATH 273 Linear Algebra with Applications (C- and above) AND (MATH 310 Applied Statistical Methods (C- and above) OR MATH 322 Mathematical Statistics (C- and above))			Mathematics	SHSS, SST		
64	MATH 449	Statistical Programming	3	6	MATH 322 Mathematical Statistics (C- and above)			Mathematics	SHSS, SST		
65	MATH 471	Nonlinear Differential Equations	3	6	MATH 273 Linear Algebra with Applications (C- and above) AND MATH 274 Introduction to Differential Equations (C- and above)			Mathematics	SHSS, SST		
66	MATH 480	Complex Analysis	3	6	MATH 263 Calculus III (C- and above)			Mathematics	SHSS, SST		
67	MATH 481	Partial Differential Equations	3	6		MATH 274 Introduction to Differential Equations (C- and above) AND MATH 480 Complex Analysis (C- and above)		Mathematics	SST	SHSS	
Physics											
68	PHYS 161	Physics I for Scientists and Engineers with Laboratory	4	8		MATH 161 Calculus I (D and above) OR MATH 162 Calculus II (D and above)	PHYS 171 Physics I for Physics Majors with Laboratory (C- and above)	1 year UG SST	SST	SHSS	
69	PHYS 201	Introductory Astronomy I	3	6	MATH 162 Calculus II (C- and above)			Physics	SHSS, SST		
70	PHYS 221	Classical Mechanics I	3	6	PHYS 172 Physics II for Physics Majors with Laboratory (C- and above) OR PHYS 162 Physics II for Scientists and Engineers with Laboratory (C- and above)	MATH 263 Calculus III (D and above) AND MATH 274 Introduction to Differential Equations (D and above)		Physics	SHSS, SST		

71	PHYS 261	Modern Physics with laboratory	4	8	MATH 162 Calculus II (C- and above) AND (PHYS 152 Introductory Physics II with Lab (C- and above) OR PHYS 162 Physics II for Scientists and Engineers with Laboratory (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (C- and above))		Physics	SHSS, SST		
72	PHYS 361	Classical Electrodynamics I	3	6	(PHYS 172 Physics II for Physics Majors with Laboratory (C- and above) OR PHYS 162 Physics II for Scientists and Engineers with Laboratory (C- and above)) AND MATH 274 Introduction to Differential Equations (C- and above)	PHYS 315 Mathematical Methods of Physics (D and above) OR PHYS 411 Advanced Mathematical Physics (D and above)	Physics	SHSS, SST		
73	PHYS 411	Advanced Mathematical Physics	3	6	MATH 274 Introduction to Differential Equations (C- and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (C- and above)		Physics	SST	SHSS	
74	PHYS 452	Quantum Mechanics II	3	6	PHYS 451 Quantum Mechanics I (C- and above)		Physics	SHSS, SST		
75	PHYS 465	Advanced Experimental Physics	3	6			Physics	SHSS, SST		
76	PHYS 473	Introduction to Solid State Physics	3	6	PHYS 280 Thermodynamics and Statistical Physics (C- and above) AND PHYS 451 Quantum Mechanics I (C- and above)		Physics	SHSS, SST		
77	PHYS 491	Directed Study of Advanced Physics Topics	3	6			Through Add form only			
Robotics and Mechatronics										
78	ROBT 201	Mechanics: Statics and Dynamics	3	6	MATH 162 Calculus II (C- and above) AND (PHYS 161 Physics I for Scientists and Engineers with Laboratory (C- and above) OR PHYS 171 Physics I for Physics Majors with Laboratory (C- and above))		Robotics and Mechatronics	SST	SHSS	
79	ROBT 203	Electrical and Electronic Circuits I with Lab	4	8	MATH 162 Calculus II (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (C- and above) OR (PHYS 141 Physics I for non-majors with Lab (C- and above) AND PHYS 142 Physics II for non-majors with Lab (C- and above)))		Robotics and Mechatronics	SST	SHSS	

80	ROBT 205	Signals and Sensing with Lab	4	8	MATH 162 Calculus II (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (C- and above))		Robotics and Mechatronics	SST	SHSS	
81	ROBT 301	Mechanical Design I with CAD Laboratory	4	8	ROBT 201 Mechanics: Statics and Dynamics (C- and above)		Robotics and Mechatronics	SST	SHSS	
82	ROBT 303	Linear Control Theory with Lab	4	8	ROBT 202 System Dynamics and Modeling (C- and above) AND MATH 274 Introduction to Differential Equations (C- and above)		Robotics and Mechatronics	SST	SHSS	
83	ROBT 305	Embedded Systems	3	6	ROBT 206 Microcontrollers with Lab (C- and above)		Robotics and Mechatronics	SST	SHSS	
84	ROBT 307	Power Electronics	3	6	ROBT 204 Electrical and Electronic Circuits II with Lab (C- and above)		Robotics and Mechatronics	SST	SHSS	
85	ROBT 401	Robot Dynamics and Control	3	6	ROBT 303 Linear Control Theory with Lab (C- and above)		Robotics and Mechatronics	SST	SHSS	
86	ROBT 407	Statistical Methods and Machine Learning	3	6	MATH 273 Linear Algebra with Applications (C- and above)		Robotics and Mechatronics	SST	SHSS	