B.S.- B. A. Physics Major (Option 1 - General Physics) [Revised 2/26/13]

Student Name

FALL			SPRING		
FRESHMAN		UCC			UCC
Course	Hrs.	Hrs.	Course	Hrs.	Hrs.
PHYC 115	1		PHYC 122	5	
PHYC 120 (UCC-21 3 hrs)	5	3	MATH 166	4	
MATH 165 (UCC-21 3 hrs)	4	3	UCC-21 (ENG 104 or ENG 114)	3	3
CS 120	4		UCC-21 (Found. Oral Comm.)	3	3
UCC-21 (ENG 103 if needed)	3	3	UCC-21 (Found. Personal Finance)	1	1
Semester Total	*17*	*9*	Semester Total	*16*	*7*
SOPHOMORE					
Course	Hrs.	Hrs.	Course	Hrs.	Hrs.
PHYC 260	4		PHYC 262	1	
MATH 267	4		PHYC 330	3	
UCC-21 (Found. Physical Wellness)	2	2	UCC-21	*3*	*3*
UCC-21	3	3	UCC-21	*3*	*3*
Elective	3		Elective	3	
			Elective	3	
Semester Total	*16*	*5*	Semester Total	*16*	*6*
JUNIOR					
Course	Hrs.	Hrs.	Course	Hrs.	Hrs.
PHYC 340 or PHYC 434	3		Approved Department Elective (1 of 2)	3	
PHYC 464	3		PHYC 465	3	
PHYC 483 (1 of 2)	1		UCC-21-W+	3	3
UCC-21-W	3	3	UCC-21	*3*	*3*
Elective	3		Elective	3	
WPP (Writing Proficiency Exam)					
Semester Total	*13*	*3*	*Semester Total*	*15*	*6*
SENIOR					
Course	Hrs.	Hrs.	Course	Hrs.	Hrs.
PHYC 340 or PHYC 434	3		Approved Department Elective (2 of 2)	3	
PHYC 450	3		PHYC 452	3	
PHYC 485	1		PHYC 369/479/482 or HONR 499	3	
Elective	3		PHYC 483 (2 of 2)	1	
Elective	4		Elective	3	
Semester Total	*14*	*0*	*Semester Total*	*13*	*0*
			Four Year Program Total	120	36

Late starters & double majors.

Year Five					
Course	Hrs.	Hrs.	Course	Hrs.	Hrs.
Semester Total	*0*	*0*	*Semester Total*	*0*	*0*
			Five Year Program Total	120	0

Physics Major (Option 1 - General Physics Required Courses

Course	Hrs.	
MATH 165	4	A11
MATH 166	4	D10
MATH 267	4	A21
CS 120	4	A12
PHYC 115	1	A9
PHYC 120	5	A10
PHYC 122	5	D9
PHYC 260	4	A20
PHYC 262	1	D20
PHYC 330	3	D21
PHYC 340	3	A33
PHYC 434	3	A44
PHYC 450	3	A45
PHYC 452	3	D45
PHYC 464	3	A34
PHYC 465	3	D34
PHYC 483 (1 of 2)	1	A35
PHYC 483 (2 of 2)	1	D47
PHYC 485	1	A46
Approved Department Elective (1 of 2)	3	D33
Approved Department Elective (2 of 2)	3	D44
PHYC 369/479/482 or HONR 499	3	D46
Required Courses 65 hours.	65	

University Core Curriculum	**Hrs.**	**Cell**		**Cell**
UCC-21 (ENG 103 if needed)	3	A13	WISER Plus "W" Course	
UCC-21 (ENG 104 or ENG 114)	3	D11	WISER Plus "Other Elective"	
UCC-21 (Found. Oral Comm.)	3	D12		
UCC-21 (Foundation Mathematics)	3	A11		
UCC-21 (Foundation History)	3			
UCC-21 (Found. Physical Wellness)	2	A22		
UCC-21 (Found. Personal Finance)	1	D13		
UCC-21 Fine Arts Tier 1	3			
UCC-21 Humanities Tier 1	3			
UCC-21 Natural Science Tier 1	3			
UCC-21 Social Science Tier 1	3			
UCC-21 Tier 2 (1 of 2)	3			
UCC-21 Tier 2 (2 of 2)	3			
UCC-21 (Class of 2014 and later)	**36**			

Course Offerings by Term

Undergraduate Courses

Course			Fall 2013 Odd	Spr 2014 Even	SS1 2014 Even	SS2 2014 Even	Fall 2014 Even	Spr 2015 Odd	SS1 2015 Odd	SS2 2015 Odd
		Core Undergraduate Courses								
PHYC	115	Career Issues in Physics	X				X			
PHYC	120	General Physics I (calculus-based)	X	X	X		X	X	X	
PHYC	122	General Physics II (calculus-based)	X	X		X	X	X		X
PHYC	260	Intro. to Modern Physics	X				X			
PHYC	262	Modern Physics Laboratory		X				X		
PHYC	330	Mechanics		X				X		
PHYC	434	Thermodynamics	X							
PHYC	340	Physical Optics					X			
PHYC	450	Electricity and Magnetism	X				X			
PHYC	464	Intro. Quantum Mechanics	X				X			
PHYC	369	Professional Experience								
PHYC	479	Practical Experience								
PHYC	482	Independent Studies in Physics								
PHYC	485	Measures of Learning in Physics								
		Other Undergraduate Courses								
PHYC	140	General Physics I (no lab - calculus-based)								
PHYC	141	General Physics I (lab - calculus-based)								
PHYC	142	General Physics II (no lab - calculus-based)								
PHYC	143	General Physics II (lab - calculus-based)								
PHYC	200	Topics in Physics								
ASTR	330	Astronomy and Astrophysics I	X							
ASTR	332	Astronomy and Astrophysics II		X						
ASTR	380	Seminar in Modern Astronomy				X				
PHYC	346	Acoustics								
PHYC	354	Electronics 1	X				X			
PHYC	356	Electronics 2		X				X		
PHYC	360	Nuclear Techniques						X		
PHYC	370	Math Physics 1							X	
PHYC	372	Math Physics 2								X
PHYC	380	Seminar in Modern Physics								
PHYC	390	Honors Colloquium in Physics								
PHYC	452	Electromagnetic Theory		X				X		
PHYC	461	Elementary Particles						X		
PHYC	463	Nuclear Physics		X						
PHYC	465	Quantum Mechanics		X				X		
PHYC	466	Condensed Matter Physics	X							
PHYC	469	Immersion Experiences Related to Physics and Astronor								
PHYC	483	Seminar in Physics	+	+	+	+	+	+	+	+
APHY	310	Intro. to Nanoscience and Technology						X		
APHY	312	Fund. of Nanomaterials Growth & Device Fabrication		X						
APHY	315	Medical Physics 1					X			
APHY	316	Medical Physics 2						X		
APHY	420	Solar Thermal Systems								
APHY	422	Photovoltaics								

Course Pre-requisites

Course ID and Title	Crs Hrs	UCC Hrs	Pre-requisites and Co-requisites (CoR = Parallel)
MATH 161 Applied Calculus 1	4	3	MATH 112 (or equivalent)
MATH 162 Applied Calculus 2	4		MATH 161 or MATH 165
MATH 165 Calculus 1	4	3	MATH 112 (or equivalent)
MATH 166 Calculus 2	4		MATH 165
MATH 217 Linear Algebra	4		MATH 159, MATH 162 or MATH 165 or permission
MATH 267 Calculus 3	4		MATH 166
PHYC 115 Career Issues	1		None
PHYC 120 General Physics 1	5	3	MATH 165 (CoR) preferred or MATH 161 (CoR)
PHYC 122 General Physics 2	5		PHYC 120, MATH 166 (CoR) preferred or MATH 162 (CoR)
PHYC 260 Modern Physics	4		PHYC 122
PHYC 262 Modern Physics Lab	1		PHYC 260
PHYC 330 Mechanics	3		PHYC 120
PHYC 340 Physical Optics	3		PHYC 122
PHYC 354 Electronics 1	4		PHYC 122
PHYC 356 Electronics 2	4		PHYC 354
PHYC 369/479/482 or HONR 499 Research)	3		Permission
PHYC 434 Thermodynamics	3		PHYC 330; MATH 267
PHYC 450 Electricity & Magnitism 1	3		PHYC 122; MATH 267
PHYC 452 Electricity & Magnetism 2	3		PHYS 450
PHYC 464 Introduction to Quantum Mechanics	3		PHYC 260; MATH 267
PHYC 465 Quantum Mechanics	3		PHYC 464
PHYC 483 Seminar in Physics	1		None
PHYC 485 Measures of Learning in Physics	1		PHYC 260, PHYC 330
ASTR 330 Astronomy & Astrophysics 1	4		PHYC 122
ASTR 332 Astronomy and Astrophysics 2	4		ASTR 330

CHEM 111	4	3	one year secondary school algebra or equivalent
CHEM 112 (UCC-21 Tier 2 - 3 hrs)	4	3	CHEM 111, MATH 108
CS 120 Computer Science	4		MATH 112 (or equivalent - pre-calc trigonometry)
TMFG 105 Technical Design Graphics	3		None

Education Course Requirements

SCI 150	3		a science course from a science licensure area (CoR)
SCI 295	3		Junior standing, at least 24 hours of science content courses
SCI 396	3		SCI 295; [EDSE 380 & EDJH 385 (CoR)]
EDPS 251 Human Growth and Dev. for Sec. Ed.	3		None
EDMU 205 Introduction to Multiculteral Education	3		Sophomore standing
EDPS 390 Educational Psychology	3		EDPS 251
EDFO 420 Social, Historical and Phil. Foundations	3		Junior class standing
EDJH 385 Principals of Teaching in Middle School	3		EDSE 380 (CoR) and permission
EDSE 380 Principles of Teaching in Secondary School	3		EDJH 385 (CoR) and permission
EDSE 460 (Student Teaching)	6		Admission of student to teaching
EDJH 460 (Student Teaching)	6		Admission of student to teaching