CURRICULLUM FOR BACHELOR OF SCIENCE IN CHEMISTRY AND PHYSICS

Nanoscience Option (121-Credit Hours)

Minimum Grade of "C" in ALL Nanoscience, Physics, Chemistry and Mathematics Courses

FALL SEMESTER					SPRING SEMESTER			
FRESHMAN YEAR								
English Composition I	ENGL	1311	3		English Composition II	ENGL	1321	3
General Chemistry I	CHEM	1330	3		General Chemistry II	CHEM	1340	3
General Chemistry I Lab	CHEM	1130	1		General Chemistry II Lab	CHEM	1140	1
College Algebra **OR**	MATH	1330	3		Calculus I	MATH	2510	5
College Trigonometry **OR**	MATH	1340			Principles of Biology	BIOL	1455	4
Pre-Calculus	MATH	1550						
General Psychology **OR**	PSYC	2300	3					
Intro to Social Sciences	SOCI	1320						
Career & Life Planning	BAS	1120	1					
			14-16					**16**
SOPHOMORE YEAR								
Fund. of Organic Chemistry	CHEM	2312	3		U.S. History **OR**	HIST	2315	3
Fund. of Organic Chemistry Lab	CHEM	2112	1		American Government	PSCI	2312	
Calculus II	MATH	2520	5		Introduction to Nanoscience I	NANO	3310	3
Personal & Social Dev	BAS	1210	2		Biochemistry I	CHEM	3313	3
University Physics I	PHYS	3310	3		Biochemistry I Lab	CHEM	3113	1
University Physics I Lab	PHYS	3110	1		Physical Education Elective **OR**	HLPE	1110-1125	1
					Learning to Lead 1 (for 1-hr PE)	MLSC	1210	
					University Physics II	PHYS	3320	3
					University Physics II Lab	PHYS	3120	1
			15					**15**
JUNIOR YEAR								
Comp Sci/Vis Basic	CPSC	2322	3		Intro to Computer Program	CPSC	2363	3
Art History Appreciation **OR**	ART	2340	3		Electricity & Magnetism	PHYS	4311	3
Music History Appreciation	MUSI	2330			Modern Physics	PHYS	4331	3
Mathematical Methods in Physics	PHYS	4361	3		Foreign Language II	MDFL		3
Introduction to Nanoscience II	NANO	3320	3		English Literature	ENGL	2300/2360/2361	3
Introduction to Nanoscience Lab	NANO	3120	1					
Foreign Language I	MDFL		3					
			16					**15**
SENIOR YEAR								
Chemical/Biochemical Principles of Nanoscience	NANO	4312	3		Oral Communication	MCOM	2390	3
Physical Principles of Nanoscience	NANO	4311	3		Nano Research	NANO	4210	2
Introduction to Material Science	NANO	4313	3		Nanoscale Optics and Spectroscopy	NANO	4315	3
Principles of Economics **OR**	ECON	2310	3		NANO Elective	NANO		3
Introduction to Sociology	SOCI	2310			Nano Seminar	NANO	4110	1
Humanities **OR**	HUMN	2301	3		Personal Health & Safety **OR**	HLPE	1310	3
Effective Thinking/Logic **OR**	HUMN	2340			Nutrition and Wellness	HUSC	1311	
Theatre Appreciation	THTR	2324						
			15					**15**

UNIVERSITY of ARKANSAS AT PINE BLUFF 1873

School of Arts and Sciences
Department of Chemistry and Physics
Bachelor of Science Degree in Chemistry and Physics
Nanoscience Option (121-Credit Hours)
Minimum Grade of "C" in ALL Nanoscience, Physics, Chemistry and Mathematics Courses

DATE OF ENTRY: _____ **I.D. NUMBER** _____ **Email:** _____
NAME: _____ **ADDRESS:** _____
HOME TELEPHONE: _____ **WORK:** _____ **CELL:** _____

COURSE	HRS	COURSE	HRS
General Education Institutional Requirement (3-Hours)		Select any 1 from the following:	1
___ BAS 1210 Personal and Social Development	2	___ HLPE 1110 through HLPE 1125 Phys. Educ.	
___ BAS 1120 Career and Life Planning	1	___ MLSC 1210: Learning to Lead I (for 1 hour PE)	
Mathematics & Natural Sciences (11-13 Hrs)		**Communication (12-Hours)**	
___ BIOL 1455 Principles of Biology	4	___ ENGL 1311 English Composition I	3
___ CHEM 1330 General Chemistry I	3	___ ENGL 1321 English Composition II	3
___ CHEM 1130 General Chemistry I Lab	1	___ MCOM 2390 Oral Communication	3
Select 1 course from the following:	3-5	Select 1 course from the following:	
___ MATH 1330 College Algebra		___ ENGL 2300 Introduction to Literature	3
___ MATH 1340 College Trigonometry		___ ENGL 2360 World Literature I	3
___ MATH 1550 Pre-Calculus I		___ ENGL 2361 World Literature II	3
Humanities (6-Hours)		**Common Core Program Requirement (26-Hours)**	
Select 2 courses from the following:	6	___ CPSC 2322 Special Topics: Visual Basic	3
___ ART 2340 Art Appreciation		___ CPSC 2363 Intro. to Business Programming	3
___ MUSI 2330 Music Appreciation		___ Foreign Language I	3
___ HUMN 2301 Humanities		___ Foreign Language II	3
___ HUMN 2340 Effective Thinking / Logic		___ CHEM 1340 General Chemistry II	3
___ THTR 2324 Theatre Appreciation		___ CHEM 1140 General Chemistry II Lab	1
Social Sciences (9-Hours)		___ MATH 2510 Calculus I	5
Select 1 course from the following:	3	___ MATH 2520 Calculus II	5
___ HIST 2315 U. S. History to 1877		**Common Core Program Requirement (25-Hours)**	
___ HIST 2318 U. S. History Since 1877		___ PHYS 3310 University Physics I	3
___ PSCI 2312 American Government		___ PHYS 3110 University Physics I Lab	1
Select 2 from the following	6	___ PHYS 3320 University Physics II	3
___ ECON 2310 Principles of Economics I		___ PHYS 3120 University Physics II Lab	1
___ PSYC 2300 General Psychology		___ CHEM 2312 Fundamentals of Organic Chemistry	3
___ SOCI 1320 Introduction to Social Science		___ CHEM 2112 Fundamentals of Organic Chemistry Lab	1
___ SOCI 2310 Introduction to Sociology		___ CHEM 3313 Biochemistry I	3
Health & Physical Education (4-Hours)		___ CHEM 3113 Biochemistry I Lab	1
Select 1 course from the following:	3	___ PHYS 4361 Mathematical Methods in Physics	3
___ HUSC 1311 Nutrition and Wellness		___ PHYS 4311 Electricity & Magnetism	3
___ HLPE 1310 Personal Health & Safety		___ PHYS 4331 Modern Physics	3

COURSE	HRS	COURSE	HRS
Nano Core Courses (22-Hours)		___ NANO 4210 Nano Research	2
___ NANO 3310 Introduction to Nanoscience I	3	___ NANO 4110 Nano Seminar	1
___ NANO 3320 Introduction to Nanoscience II	3	**Nano Elective Courses (3-Hrs from the following)**	
___ NANO 3120 Introduction to Nanoscience Lab	3	___ NANO 4314 Computational Nanoscience	3
___ NANO 4311 Physical Principles of Nanoscience	3	___ NANO 4316 Micro/Nano Electronic Devices and Characterization	3
___ NANO 4312 Chemical/Biochemical Principles of Nanoscience	3	___ PHYS 5345 Lasers/Optics and Applications	3
___ NANO 4313 Introduction to Material Science	3	___ CHEM 4310 Inorganic Chemistry	3
___ NANO 4315 Nanoscale Optics and Spectroscopy	3	___ CHEM 5312 Advanced Biochemistry	3

CHECKLIST OF COMPLETION:

_____AAGE (Rising Junior Exam)

_____Exit University College

_____Senior Comprehensive Exam

_____English Proficiency Exam

SIGNATURES:

Student: _____ Date: _____

Advisor: _____ Date: _____

Chair: _____ Date: _____

Dean: _____ Date: _____