APPROVED
University Registrar

College of Science
Bachelor of Science in NANOSCIENCE
Major in NANOSCIENCE
For students graduating in calendar year 2021

I. Curriculum for Liberal Education (40 credit hours)

All courses used for the Curriculum for Liberal Education must be on the University's approved list.

Area 1 - Writing and Discourse (6 credit hours)

_____ 3__ _____ 3__

Area 2 - Ideas, Cultural Traditions, and Values (6 credit hours)

_____ 3__ _____ 3__

Area 3 - Society and Human Behavior (6 credit hours)

_____ 3__ _____ 3__

Area 4 - Scientific Reasoning and Discovery (8 credit hours)

PHYS 2305 Foundations of Physics I* 4__ PHYS 2306 Foundations of Physics I* 4__

Area 5 - Quantitative and Symbolic Reasoning (8 credit hours)

MATH 1225 Calculus of a Single Variable* 4__ MATH 1226 Calculus of a Single Variable* 4__

Area 6 - Creativity and Aesthetic Experience (3 credit hours)

_____ 3__

Area 7 - Critical Issues in a Global Context (3 credit hours)

_____ 3__

II. Nanoscience Degree Core Requirements (35 credit hours)

FALL#		SPRING#	
NANO 1015 Introduction to Nanoscience*	3__	NANO 1016 Introduction to Nanoscience*	3__
NANO 2114 Nanoscience Research Seminar*	1__	NANO 2024 Quantum Physics of Nanostructures*	4__
NANO 3015 Nanoscale Synthesis, Fabrication, and Characterization*	4__	NANO 3016 Nanoscale Synthesis, Fabrication, and Characterization*	4__
NANO 3114 Professional Dissemination of Nanoscience Research*	1__	NANO 3124 Nanoscience and the Environment*	3__
NANO 4314 Nanomedicine*	4__		
		NANO 4994 Undergraduate Research*^	8__

III. Nanoscience Major Requirements (26 credit hours)

FALL#		SPRING#	
CHEM 1035 General Chemistry*	3__	CHEM 1036 General Chemistry*	3__
CHEM 1045 General Chemistry Lab*	1__	CHEM 1046 General Chemistry Lab*	1__
CHEM 2535 Organic Chemistry	3__	CHEM 2536 Organic Chemistry	3__
CHEM 2545 Organic Chemistry Lab	1__	CHEM 2546 Organic Chemistry Lab	1__
MATH 2214 Introduction to Differential Equations	3__	MATH 1114 Elementary Linear Algebra	2__
		BIOL 2124 Cell and Molecular Biology for Engineers	2__
		NANO 4124 Adv. Nanomaterials and Devices*	3__

IV. Free Electives (19 credit hours)

_____	____	_____	____
_____	____	_____	____
_____	____	_____	____
_____	____	_____	____

Prerequisites

Some courses on this checksheet have prerequisites. Students are required to double check course prerequisites and equivalents. Please see your advisor or consult the Undergraduate Course Catalog for more information.

Acceptable Substitutions

BIOL 2124: BIOL 2104 Cell & Molecular Biology OR BIOL 2134 Cell Function Differentiation OR
NEUR 3044 Cell Molecular Neuroscience
CHEM 1035/1036: CHEM 1055/1056 General Chemistry for Majors
CHEM 1045/1046: CHEM 1065/1066 General Chemistry Lab for Majors
CHEM 2535/2536: CHEM 2565/2566 Principles of Organic Chemistry
CHEM 2545/2546: CHEM 2555/2556 Organic Synthesis and Techniques Lab
MATH 1114: MATH 2114 Intro to Linear Algebra
NANO 2024: PHYS 3324 Modern Physics
MATH 1114, CHEM 1035/1045, CHEM 1036/1046, PHYS 2305/2306: ISC 1105/1115, 1106/1116, 2105/2115, 2106/2116 Integrated Science I-II and Integrated Science Lab I-II

Foreign Language Requirement

Students who did not successfully complete at least two years of a single foreign, classical, or sign language during high school must successfully complete six semester hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count toward the hours required for graduation. Please consult the Undergraduate Catalog for details.

Satisfactory Progress Towards Degree

Upon having attempted 72 credit hours, the student will have completed NANO 1015-1016, MATH 1225-1226, CHEM 1035-1036, CHEM 1045-1046, PHYS 2305-2306.

Graduation Requirements

120 credit hours are required for graduation. These credits must include the courses required for the major (see above sections). To graduate, a student must have at least a 2.0 in-major GPA and overall GPA.

* ***In Major GPA:*** *Courses marked with * will be used for computing the "in major" GPA.*
# ***Fall/Spring Course Offerings:*** *Please consult with your advisor to ensure the courses are offered in the semester you intend to take them.*
^***Undergraduate Research:*** *All 8 credits are not taken in one semester. They are often split among different semesters.*