

College of Science
Bachelor of Science in NANOSCIENCE
For students graduating in calendar year 2017

I. Curriculum for Liberal Education (38 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)

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

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

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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 (6 credit hours)

MATH 1205 Calculus 3__ MATH 1206 Calculus 3__

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

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

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II. Nanoscience (40 credit hours)

NANO 1015 Introduction to Nanoscience	3__	NANO 3016 Nano. Synth., Fab. and Charact.*	4__
NANO 1016 Introduction to Nanoscience*	3__	NANO 3114 Prof. Diss. of Nano. Research*	1__
NANO 2024 Quantum Physics of Nanostructures*	4__	NANO 3124 Nanoscience and the Environment*	3__
NANO 2114 Nanoscience Research Seminar*	1__	NANO 4124 Adv. Nanomaterials and Devices*	3__
NANO 2124 Nanoscience Research Rotations*	2__	NANO 4314 Nanomedicine*	4__
NANO 3015 Nano. Synth., Fab. and Charact.*	4__	NANO 4994 Undergraduate Research	8__

III. Additional Mathematics and Science (18 credit hours)

MATH 1114 Elementary Linear Algebra	2__	MATH 2214 Introduction to Differential Equations*	3__
CHEM 1035 General Chemistry	3__	CHEM 1045 General Chemistry Lab	1__
CHEM 1036 General Chemistry*	3__	CHEM 1046 General Chemistry Lab*	1__
CHEM 2514 Survey of Organic Chemistry*	3__	BIOL 2124 Cell and Molec. Biol. for Engineers*	2__

IV. Free Electives (24 credit hours)

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Acceptable Substitutions

PHYS 2305: PHYS 2205 & 2215 General Physics & General Physics Laboratory

PHYS 2306: PHYS 2206 & 2216 General Physics & General Physics Laboratory

MATH 1205/1206: MATH 1016/2015 Elem Calculus w/ Trig

NANO 2024: PHYS 3324 Modern Physics

CHEM 1035/1045: CHEM 1055/1065 General Chemistry for Majors

CHEM 1036/1046: CHEM 1056/1066 General Chemistry for Majors

CHEM 2514: CHEM 2535/2536 Organic Chemistry or CHEM 2555/2556 Princ. of Organic Chemistry

BIOL 2124: BIOL 2104 Cell and Molecular Biology

MATH 1114, MATH 1205-1206, CHEM 1035-1036, CHEM 1045-1046, PHYS 2305-2306 can be substituted with ISC 1105-1106, ISC 1115-1116, ISC 2105-2106, ISC 2115-2116.

Prerequisites*

This check sheet has no hidden prerequisites although some of the courses listed are prerequisites for other courses. Please see your advisor or consult the Undergraduate Course Catalog for more information.

Foreign Language

In order to graduate, students must meet a language study requirement. The College of Science requires three units of a single foreign or classical language (or American Sign Language) during high school or the second semester of a college-level foreign or classical language (or American Sign Language). These credit hours do not count toward the total minimum hours required for the declared degree program.

Satisfactory Progress Towards Degree

Upon having attempted 72 credit hours, the student will have completed NANO 1015-1016, MATH 1205-1206, CHEM 1035-1036, CHEM 1045-1046, PHYS 2305-2306.

Credit Hours and GPA Requirements

Graduation requires a minimum of 120 credit hours with a GPA of 2.0 or greater for all hours attempted. In addition, students must have an in-major GPA of 2.0 or better. Courses count towards in-major GPA include NANO 1015, 1016, 2024, 2114, 2124, 3015, 3016, 3114, 3124, 4124, 4314, and 4994.