

Department of Mathematics and Science

Mission

The mission of the Mathematics and Science Department is to provide a rigorous education that will prepare students for further study and careers involving mathematics, science, and engineering.

Vision

The vision of the Mathematics and Science Department is to offer a group of courses that will provide students with a solid foundation in calculus, chemistry, engineering, and physics, including both theory and real-life experiences. The department aims to prepare students for (1) a seamless transition to another institution with junior standing in mathematics, engineering or a science-related major, and (2) entry into the technical work force.

Goals

The goals of the Mathematics and Science curricula are the following:

- Provide an opportunity for students of all socio-economic and academic backgrounds to pursue an education in science;
- Develop the student's ability to apply knowledge of calculus, chemistry, engineering, and physics;
- Advance the student's analytical thinking and problem solving skills;
- Instill in students the ability to use the techniques, skills, materials, modern equipment, and tools necessary for competency in math, science, and engineering fields; and
- Enhance the student's teamwork and communication skills essential to success in a technical career.

Associate of Science Degree in Mathematics and Science

The curriculum in the Associate of Science Degree in Mathematics and Science is designed with two purposes:

- To prepare the student to transfer to a Baccalaureate program in math, science, engineering, and related fields at another institution; and
- To provide the student with basic knowledge and skills in mathematics and science to enter the workforce.

Requirements

In order to meet the academic requirements for graduation with an Associate of Science Degree in Mathematics and Science from the National Hispanic University, the student must complete a minimum of 70 units of college credit, including:

- A minimum of 32 units of General Education to satisfy the GE Breadth requirement
- 4 units of NHU Core Courses
- All required Mathematics and Science Courses (or their equivalent), 34 units
- Attain an overall grade point average of "C" (2.0) or higher.

General Plan

NHU Core Courses	4 units
General Education Courses	32 units
Mathematics and Science Courses	34 units
Total	70 units

NHU Core Courses

SCI 100	3 units
Computer Applications for Scientists & Engineers	
INF 100	1 unit
Information Literacy	

General Education Courses

Area A: Communication in the English Language and Critical Thinking (9 units)

Oral communication

SPC 100	3 units
Public Speaking	

Written Communication

ENG 100	3 units
English Composition and Reading	

Critical Thinking

ENG 201 3 units
Critical Thinking, Reading, and Writing Across
the Curriculum

or

PHL 200 3 units
Introduction to Logic

Area B: Physical Universe and its Life Forms (8 units)

Life Science

BIO 100 4 units
General Biology

Mathematics

MAT 120 4 units
Calculus and Analytic Geometry I

Area C: Arts, Literature, Philosophy, and Foreign Languages (6 units)

Arts

ART 100 3 units
Art Appreciation

Letters & Humanities

PHL 100 3 units
Introduction to Philosophy

or

ENG 250 3 units
Contemporary Multicultural Literature

Area D: Social, Political and Economic Institutions and Behavior (6 units)

Comparative Systems

HIS 100 3 units
U.S. History I

Social Issues

HIS 201 3 units
U.S. History II

Area E: Life-Long Understanding and Self Development (3 units)

UNI 100 3 Units
First Year Seminar

or

ANT 125 3 units
Human Understanding and Development

Mathematics and Science Courses (33 units)

CHE 150A 5 Units
General Chemistry for Scientists and Engineers I

CHE 150B 5 units
General Chemistry for Scientists and Engineers II

PHY 150A 4 units
General Physics I (Mechanics)

PHY 150B 4 units
General Physics II (Electricity & Magnetism)

PHY 150C 4 units
General Physics III (Heat & Light)

PHY 150D 4 units
General Physics IV (Atomic Physics)

MAT 121 4 units
Calculus and Analytic Geometry II

MAT 122 4 units
Calculus and Analytic Geometry III

Associate of Science Degree in Mathematics and Science with Engineering Emphasis

The curriculum in the Associate of Science Degree in Mathematics and Science with Engineering Emphasis is designed with a two purposes:

- To prepare the student to enter a four-year University to obtain a Bachelor's degree for professional careers in related fields, and
- To provide the student with the knowledge and skills to enter the workforce.

Requirements

In order to meet the academic requirements for graduation with an Associate of Science Degree in Mathematics and Science with Engineering Emphasis from the National Hispanic University, the student must complete a minimum of 73 units of college credit, including:

- A minimum of 33 units of General Education to satisfy the GE Breadth requirement
- 4 units of NHU Core Courses

- All required Mathematics, Science and Engineering Courses (or their equivalent), 36 units
- Attain an overall grade point average of “C” (2.0) or higher.

General Plan

NHU Core Courses	4 units
General Education Courses	33 units
Mathematics, Science and Engineering Courses	36 units
Total	73 units

NHU Core Courses

SCI 100	3 units
Computer Applications for Scientists & Engineers	
INF 100	
Information Literacy	1 unit

General Education Courses

Area A: Communication in the English Language and Critical Thinking (9 units)

Oral communication

SPC 100	3 units
Public Speaking	

Written Communication

ENG 100	3 units
English Composition and Reading	

Critical Thinking

ENG 201	3 units
Critical Thinking, Reading, and Writing Across the Curriculum	

or

PHL 200	3 units
Introduction to Logic	

Area B: Physical Universe and its Life Forms (9 units)

Physical Science

CHE 150A	5 Units
General Chemistry for Scientists and Engineers I	

Mathematics

MAT 120	4 units
Calculus and Analytical	

Area C: Arts, Literature, Philosophy, and Foreign Languages (6 units)

Arts

ART 100	3 units
Art Appreciation	

Letters & Humanities

PHL 100	3 units
Introduction to Philosophy	

or

ENG 250	3 Units
Contemporary Multicultural Literature	

Area D: Social, Political and Economic Institutions and Behavior (6 units)

Comparative Systems

HIS 100	3 units
U.S. History I	

Social Issues

HIS 201	3 units
U.S. History II	

Area E: Life-Long Understanding and Self Development (3 units)

UNI 100	3 Units
First Year Seminar	

or

ANT 125	3 Units
Human Understanding and Development	

Mathematics, Science and Engineering Courses (36 units)

PHY 150A	4 units
General Physics I (Mechanics)	

PHY 150B	4 units
General Physics II (Electricity & Magnetism)	

PHY 150C	4 units
General Physics III (Heat & Light)	

MAT 121	4 units
Calculus and Analytic Geometry II	

MAT 122	4 units
Calculus and Analytic Geometry III	

MAT 220	4 units
Differential Equations	

