# ACADEMIC MAP TO B.S. IN MATHEMATICS HEALTHCARE INFORMATICS CONCENTRATION

## 2025-2026

**III NORTHWESTERN STATE** UNIVERSITY OF LOUISIANA

www.nsula.edu/mathematics

**START HERE**

## YEAR 1

| SEMESTER 1 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH 1010 – Introduction to Mathematics ∞ | 🚩 | | 1 | |
| MATH 2100 – Analytical Geometry and Calculus I ∞ III | 🚩 | | 5 | |
| ENGL 1010 – Composition and Rhetoric I III | | | 3 | |
| CIS 1015 – Introduction to Computer Information Systems | 🚩 | | 3 | |
| FA 1040 – Exploring the Arts III | | | 3 | |
| UNIV 1000 – The University Experience III | | | 1 | |

Semester Credits _____

| SEMESTER 2 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH 2110 – Analytical Geometry and Calculus II ∞ III | 🚩 | | 5 | |
| ENGL 1020 – Composition and Rhetoric II III | | | 3 | |
| BIOL 1010 – Biological Principles I III | | | 3 | |
| BIOL 1011 – Biological Principles Laboratory I III | | | 1 | |
| CIS 1030 – Introduction to Software Development | 🚩 | | 3 | |

Semester Credits _____

Total Credits _____

## YEAR 2

| SEMESTER 1 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH 2080 – Fundamentals of Proof ∞ | 🚩 | | 3 | |
| MATH 3130 – Analytical Geometry and Calculus III ∞ | 🚩 | | 3 | |
| CSC 1060 – Program Design I ∞ | 🚩 | | 3 | |
| CIS 2980 – Database Systems | 🚩 | | 3 | |
| ENGL 2110 – Introduction to Literature III | | | 3 | |

Semester Credits _____

Total Credits _____

| SEMESTER 2 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH 3090 – Linear Algebra I ∞ | 🚩 | | 4 | |
| MATH 3160 – Ordinary Differential Equations | | | 3 | |
| CSC 2060 – Program Design II ∞ | | | 3 | |
| CIS 4000 – Advanced Database Systems | 🚩 | | 3 | |
| COMM 1010 – Oral Communication III | | | 3 | |

Semester Credits _____

Total Credits _____

## YEAR 3

| SEMESTER 1 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH 3100 – Modern Algebra I ∞ | 🚩 | | 3 | |
| MATH 3150 – Theory of Probability | | | 3 | |
| CIS 3300 – Object Oriented Programming | | | 3 | |
| CHEM 1030 – General Chemistry I III | | | 3 | |
| CHEM 1031 – General Chemistry I Laboratory III | | | 1 | |
| ANTH 1510, 2020; ECON 2000; GEOG 1010, 1020; or PSCI 2010 III | | | 3 | |

Semester Credits _____

Total Credits _____

| SEMESTER 2 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH 4940 – Introduction to Mathematical Research ∞ | 🚩 | | 2 | |
| MATH (3000-4000) ∞ | | | 3 | |
| CIS 2100 – Software Development | 🚩 | | 3 | |
| PHYS 2510 – General Analytical Physics I III | | | 3 | |
| PHYS 2511 – General Analytical Physics I Laboratory III | | | 1 | |
| Academic Elective | | | 1 | |

Semester Credits _____

Total Credits _____

## YEAR 4

| SEMESTER 1 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH 4950 – Mathematics – A Capstone Course ∞ | 🚩 | | 4 | |
| STAT 4270 – Mathematical Statistics I | 🚩 | | 3 | |
| MATH 4900 – Field Experience in Mathematics | 🚩 | | 3 | |
| CIS 3900 – Systems Analysis and Development | 🚩 | | 3 | |
| CIS 4020 – Data Structures | 🚩 | | 3 | |

Semester Credits _____

Total Credits _____

| SEMESTER 2 | Milestones | Grade | Credits | Minimum Grade |
|---|---|---|---|---|
| MATH (3000-4000) ∞ | | | 3 | |
| Science Elective ∞ | | | 3 | |
| Science Elective Lab ∞ | | | 1 | |
| HIST 1010, 1020, 2010, or 2020 III | | | 3 | |
| EPSY 2020; PSYC 1010, 2050; or SOC 1010 III | | | 3 | |

Semester Credits _____

Total Credits __120__
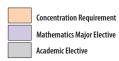
**Must maintain a 2.0 GPA within Major and Concentration to graduate.**

**YOU'VE FINISHED!**

| Legend | |
|---|---|
| III University Core Requirement | Concentration Requirement |
| ∞ Mathematics Major Requirement | Mathematics Major Elective |
| 🚩 MILESTONE | Academic Elective |

**GRADUATION REQUIREMENTS**
Major Requirements =45 | University Core/Support = 75 | Total Credits = 120