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Name
NPC ID
Reviewed by

Mathematics Program Map 2-year plan – 2023-2024 Catalog

Blocks are suggested for full-time students, but may be adjusted based on course scheduling, student employment, or individual needs.

The Associate in Arts (AA), Emphasis in Mathematics provides the first two years of a four-year curriculum for students who intend to transfer to a four-year institution and earn a bachelor`s degree in mathematics, actuarial science, statistics, computational mathematical science, or related fields. With a bachelor`s degree, students may pursue a number of careers including actuary, statistical assistant, and business intelligence analyst. With a graduate degree, students may pursue employment as a mathematician or statistician, which may include teaching at institutions of higher education, or as an analyst in a number of fields including finance, data science, cryptography, and scientific computing.

Total Credits Required: 66 credits

- If students take an elective in the Fourth block, total semester credits: 69 credits

Notes: Students must earn a grade of C or better in each course in the program.

This pathway map will help you gain the expertise needed to:

1. Demonstrate knowledge of proportional relationships, spatial reasoning, algebra, geometry, trigonometry, and calculus.
2. Demonstrate the interconnectedness of mathematical ideas and how they build on one another.
3. Use patterns and relationships to make generalizations and predictions.
4. Present information accurately in various ways (graphically, numerically, symbolically, and verbally).
5. Apply appropriate mathematical strategies and reasoning to solve problems.
6. Justify mathematical processes and results.
7. Use technology to assist in learning and investigating mathematical ideas.
8. Determine and apply appropriate technologies to solve problems efficiently.
9. Critically evaluate information for relevance, usefulness, and applicability.
10. Communicate mathematics both orally and in writing using appropriate terminology and notation.
11. Collaborate effectively and appropriately in a diverse, multicultural setting to solve problems.
12. Critique the reasoning of others.
13. Apply relevant knowledge, skills, and habits of mind to seek career opportunities in the field.

Course Sequence by Term

The following is the suggested course sequence by term. Please keep in mind:

- Students should meet with an academic advisor to develop an individual education plan that meets their academic and career goals. Use the Pathway Planner tool in your Student Center to manage your plan.
- The course sequence is laid out by suggested term and may be affected when students enter the program at different times of the year.
- Initial course placement is determined by current district placement measures and/or completion of 100-200 level course and/or program requirements.

Pathway Map Options

There are multiple options available for this pathway map. These options vary depending on the available transfer institutions and what degrees you may be able to transfer into.

These pathway map options may share some common coursework. To explore what additional coursework may be required, select your desired option from the list below. Once selected, the list of courses and any associated details will be automatically updated in the course sequence below. The differences between individual pathway map options may only be a few courses.

First Block (Fall)

X	Course	Notes	
	ENL 101 College Composition I*	Prerequisites	3
	MAT 189 Pre-Calculus Algebra/Trigonometry*	Prerequisites	3
	Arts and Humanities elective	PHL101 Introduction to Philosophy - recommend	3
	Social and Behavioral Sciences elective	ECN211 Principles of Macroeconomics - recommend	3
	Transferable elective	PHL105 Introduction to Ethics - recommend	3
	CIS105 Computer Applications and Information Technology		3
		Tot	18

Second Block (Spring)

X	Course	Notes	credits
	ENL 102 College Composition II*	Prerequisites	3
	MAT221 Calculus I*	Prerequisites	4
	MAT160 Introduction to Statistics*	Prerequisites	4
	Arts and Humanities elective	PHL 103 Intro to Logic and Critical Thinking - Recommend	3
	Social and Behavioral Sciences elective	ECN212 Principles of Microeconomics - recommend	3
		Tot	17

Third Block (Fall)

X	Course	Notes	credits
	MAT231 Calculus II*	Prerequisites	4
	Physical and Biological Science	BIO181 General Biology I - recommend	4
	elective	CIS 111 Introduction to Programming I -recommend	3
	SPT 110 Fundamentals of Oral Communications or SPT 120 Public Speaking	Recommend	3
	Arts and Humanities elective	ENL220 World Literature I	3
		Tot	17

Fourth Block (Spring)

X	Course	Notes	credits
	MAT241 Calculus III*	Prerequisites	4
	Physical and Biological Science	PHY111 General Physics I - recommend	4
	Social and Behavioral Science elective	PSY250 Social Psychology - recommend	3
	elective	ENL224 English Literature I - recommend	3
	Transferable elective	CHM152 General Chemistry II or BIO182 General Biology II	4
	(Transfer elective)	CIS 112 Introduction to Programming II -recommend	(3)
		Tot	14(17)

Note

Tot semester credits: 66 credits

If students take an elective in the Fourth block, tot semester credits: 69 credits.

Your Academic Plan

Semester   FA   Year 2023

Course	Credits	Grade

Semester   Year

Course	Credits	Grade

Semester_____ Year_____

Course	Credits	Grade

Semester_____ Year_____

Course	Credits	Grade

Key

* = Prerequisite (Speak with your academic advisor or check the notes section for more information.)

Notes: This Academic Plan is a suggestion of how this program can be completed as a full-time student and may need to be adjusted based on the semester you start or your personal circumstances. Students should consult a faculty or academic advisor as they design their individual completion path.

General education options are located in section IV, Programs, of the NPC college catalog. To be sure your general education course applies to your degree, speak with your academic advisor. The online version of the college catalog is located on our public website: https://www.npc.edu/college-catalog