

Northern Virginia Community College 2009-2010 Catalog

SCIENCE:

Mathematics Specialization

Associate of Science Degree

AL, AN, LO, MA, WO, ELI

Purpose: The curriculum is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree. This curriculum is designed to prepare students to major in one of the following fields: mathematics, mathematics education, statistics, operations research, applied mathematics or computer science.

Transfer Information: Students are advised to work closely with the faculty and counseling staff for program and course scheduling. Electives should be chosen carefully to meet requirements of transfer institution. The responsibility for proper course selection rests with the student.

Recommended Preparation: Satisfactory completion of the following high school units or equivalent as a minimum: 4 units of English, 4 units of college preparatory mathematics, 1 unit of laboratory science, and 1 unit of social science.

Two Years		Credits
1st Semester		
CSC	110 Introduction to Computing	3
ENG	111 College Composition I	3
¹ HIS	Elective	3
MTH	173 Calc. with Analytic Geometry I	5
² ___	Social Science Elective	3
SDV	Elective	<u>1</u>
Total		18
2nd Semester		
CSC	130 Scientific Programming or MTH 286 Discrete Mathematics	3-4
³ ENG	112 College Composition II	3
MTH	174 Calc. with Analytic Geometry II	5
² ___	Social Science Elective	<u>3</u>
Total		14-15
3rd Semester		
⁴ ___	Humanities/Fine Arts Elective	3
MTH	277 Vector Calculus	4
⁵ MTH	Elective	3
⁶ ___	Natural Science/Lab Elective	4
⁷ PED	116 Lifetime Fitness & Wellness	<u>1</u>
Total		15
4th Semester		
⁴ ___	Humanities/Fine Arts Elective	3
⁵ MTH	Elective	3-4
⁶ ___	Natural Science/Lab Elective	4
⁷ PED/RPK	Elective	1
CST	110 Intro to Communication	<u>3</u>
Total		14-15

Total credits for the A.S. Degree in Science with a Specialization in Mathematics = 61-63

Twenty of these credits must be taken in MTH courses for transfer to a four-year institution with a major in Science.

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**SCIENCE
MATHEMATICS SPECIALIZATION A.S.**

¹ HIS 101, 102, 121, or 122 recommended. Although not required, students are encouraged to take a two-semester sequence in history, depending on the requirements of the transfer institution.

² The social science elective may be selected from the social/behavioral sciences courses listed under General Education Electives. Base selection on requirements of transfer institution.

³ ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institutions.

⁴ Humanities/fine arts elective may be selected from the humanities/fine arts courses listed under General Education Electives. Elective should be selected with advice of a counselor or faculty advisor to meet requirements of transfer institution.

⁵ Math electives should be chosen carefully from 200-level courses and after investigation of requirements of the institution to which transfer is intended.

⁶ The science elective may be selected from biology, chemistry, physics, geology, or natural science courses with a lab component, listed under General Education Electives. Some four-year colleges require a two-semester sequence.

⁷ The PED requirement may be met by one of the following options: PED 116, 2 cr.; PED 116, 1 cr. plus a PED activities course, 1 cr.; or PED 116, 1 cr. plus RPK activities course. PED 116 is offered as both a 1-credit and a 2-credit course.