## Northern Virginia Community College 2009-2010 Catalog

## COMPUTER SCIENCE

Associate of Science Degree

AL, AN, LO, MA, WO

*Purpose:* The curriculum is designed primarily for students who wish to transfer to a four-year college or university to complete the baccalaureate degree in Computer Science. The curriculum emphasizes the study of the science of computing and the use of computing in a scientific setting.

*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: 4 units of English and 4 units of college preparatory mathematics.

Ist Semester           *CSC         185 Programming Tools         1           CSC         201 Computer Science I         4           ENG         111 College Composition I         3           MTH         173 Calculus with Analytic Geom. I         5           1         Social Science Elective         3           SDV         Elective         1           Total         17
CSC         201 Computer Science I         4           ENG         111 College Composition I         3           MTH         173 Calculus with Analytic Geom. I         5           1 Social Science Elective         3           SDV         Elective         1
ENG       111 College Composition I       3         MTH       173 Calculus with Analytic Geom. I       5         1       Social Science Elective       3         SDV       Elective       1
ENG       111 College Composition I       3         MTH       173 Calculus with Analytic Geom. I       5         1       Social Science Elective       3         SDV       Elective       1         Total       17
MTH         173 Calculus with Analytic Geom. I         5           1         Social Science Elective         3           SDV         Elective         1           Total         17
1         Social Science Elective         3           SDV         Elective         1           Total         17
SDV         Elective         1           Total         17
Total 17
2nd Semester
CSC 202 Computer Science II 4
<sup>2</sup> ENG 112 College Composition II 3
MTH 174 Calculus with Analytic Geom. II 5
<sup>3</sup> PED 116 Lifetime Fitness & Wellness 1 Social Science Elective 3
Social Science Elective <u>3</u>
Total 16
3rd Semester
CSC 206 Assembly Language 3
Social Science Elective 3
4         Natural Science/Lab Elective         4           1         Social Science Elective         3           CST         110 Intro to Communication         3           Total         13
Total 13
4th Semester
CSC 205 Computer Organization 3
5 Humanities/Fine Arts Elective 3
5 Humanities/Fine Arts Elective 3 5 Humanities/Fine Arts Elective 3 4 Natural Science/Lab Elective 4
<sup>4</sup> Natural Science/Lab Elective 4
<sup>3</sup> PED/RPK Elective <u>1</u>
Total 14

## Total credits for the A.S. Degree in Computer Science = 60

<sup>\*</sup>Students who completed CSC 100 prior to fall 2009 do not need to take CSC 185.

<sup>&</sup>lt;sup>1</sup> The social science elective may be selected from the social/behavioral sciences courses listed under General Education Electives. All electives should be selected in conjunction with an advisor and after examining the requirements at the transfer institution.

<sup>&</sup>lt;sup>2</sup> ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institutions.

<sup>&</sup>lt;sup>3</sup> 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.

<sup>&</sup>lt;sup>4</sup> The science elective may be selected from biology, chemistry (excluding CHM 101-102), physics, geology, or natural science courses with a lab component, listed under General Education Electives. Some four-year colleges require a two-semester sequence.

<sup>&</sup>lt;sup>5</sup> 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.