

Northern Virginia Community College 2008-2009 Catalog

SCIENCE:

Semiconductor Laboratory Processes Specialization

Associate of Science Degree

MA

Purpose: The curriculum is designed for persons who are interested in a professional or scientific program and who plan to transfer to a four-year college or university to complete a baccalaureate degree program with a major in science or engineering, leading to a career as a laboratory process technician in semiconductor and other high-tech fabrication/research facilities.

Recommended Preparation: Satisfactory completion of the following high school units as a minimum: 4 units of English, 4 units of college preparatory mathematics, 2-3 units of laboratory sciences, 3 units of social sciences.

Two Years		Credits
1st Semester		
CHM	111 College Chemistry I	4
ENG	111 College Composition I	3
¹ MTH	271 Applied Calculus I	3
PHY	201 General College Physics I	4
SDV	106 Preparation for Employment	<u>1</u>
Total		15
2nd Semester		
CHM	112 College Chemistry II	4
HIS	Elective	3
¹ MTH	272 Applied Calculus II	3
PHY	170 Introduction to Microelectronics Processes	3
PHY	202 General College Physics II	<u>4</u>
Total		17
3rd Semester		
CHM	255 Instrumental Analysis	3
² ENG	112 College Composition II	3
MTH	177 Introductory Linear Algebra	2
PHY	270 Physical Processes-Microelectronics	4
³ ___	Social Science Elective	<u>3</u>
Total		15
4th Semester		
CHM	270 Chemical Processes-Microelectronics	4
⁴ ___	Humanities/Fine Arts Elective	3
⁵ PED	116 Lifetime Fitness & Wellness	2
SPD	110 Intro. to Speech Communications	3
³ ___	Social Science Elective	<u>3</u>
Total		15

Total credits for the A.S. Degree in Science with a Specialization in Semiconductor Laboratory Processes = 62.

¹ Students transferring to the Materials Science and Engineering Program at Va. Tech. must take MTH 173-174.

² ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institutions.

³ 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.

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 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.