Northern Virginia Community College 2007-2008 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 Sen | nester | |
| 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 | 1 |
| | Total | 15 |
| 2nd Ser | mester | |
| 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 Sei | nester | |
| 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 Sen | nester | |
| CHM | 270 Chemical Processes-Microelectronics | 4 |
| 4 | Humanities/Fine Arts Elective | 3 |
| PED | 116 Lifetime Fitness & Wellness | 2 |
| SPD | 110 Intro. to Speech Communications | 3 |
| 5 | 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 economics, geography, history, political science, psychology, or sociology (includes anthropology) courses listed on page 54. Base selection on requirements of transfer institution.

⁴ The humanities/fine arts elective may be selected from list on page 54. 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.

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