## Genesee Community College

## 653: Nanotechnology A.A.S.

## SEMESTER COURSE PLANNING WORKSHEET

FALL 2018 to CURRENT

| Suggested First Semester             | Credits |
|--------------------------------------|---------|
| ENG101 (By Placement)                | 3       |
| BIO115                               | 4       |
| CHE101                               | 4       |
| NST100                               | 3       |
| MAT121 or higher (excluding MAT 129) | 3       |
| Total                                | 17      |
| Suggested Second Semester            | Credits |
| ENG102 or ENG106                     | 3       |
| PHY122                               | 4       |
| CHE102                               | 4       |
| HISTORY ELECTIVE                     | 3       |
| Total                                | 14      |
| Suggested Third Semester             | Credits |
| BIO206 or BIO 205                    | 4       |
| SOCIAL SCIENCE                       | 3       |
| ARTS/HUMANITIES/FOREIGN LANGUAGE     | 3       |
| HED/PED/ATH                          | 2       |
| NST201                               | 3       |
| Total                                | 15      |
| Suggested Fourth Semester            | Credits |
| NST202 (Taken at ECC)                | 3       |

| NST203 (Taken at ECC) | 3  |
|-----------------------|----|
| NST204 (Taken at ECC) | 3  |
| NST205 (Taken at ECC) | 3  |
| NST206 (Taken at ECC) | 3  |
| Total                 | 15 |

#### 653: General Curriculum Information

**Proficiency Requirements:** As outlined in Procedure 321- Placement and Proficiency Requirements (see <u>GCC Placement and Proficiency Guide</u> for details), all students are required to demonstrate proficiency in reading, math, and writing skills prior to earning a college degree or certificate from Genesee Community College.

Prerequisites – Students may need to take prerequisite courses before registering for some of the required courses.

NST202, NST203, NST204, NST205, NST206: Students MUST take these courses at Erie Community College – North Campus as NS 202, NS 203, NS 204, NS 205, NS 206.

# 653: Nanotechnology A A S Degree Requirements Table

### FALL 2018 to CURRENT

| ITEM | REQUIREMENT  | CREDITS |
|------|--|---------|
| 1    | BASIC COMMUNICATION  | 6       |
| 1a   | ENG101 College Composition   | 3 of 6  |
| 2a   | ENG102 Composition in the Natural and Social Sciences or ENG 106 Technical Writing | 3 of 6  |
| 2    | HUMANITIES or THE ARTS or FOREIGN LANGUAGE   | 3       |
| 2a   | Select one: SUNY Approved Fine Art, Humanities or Foreign Language course          | 3 of 3  |
| 3    | SOCIAL SCIENCE   | 3       |
| 3a   | Select: SUNY Approved Social Science   | 3 of 3  |
| 4    | HISTORY  | 3       |
| 4a   | Select from: HIS 101, 102, 104, 105, 203, 204 or GEO 101                           | 3 of 3  |
| 5    | NATURAL SCIENCE  | 20      |
| 5a   | BIO115 General Biology 1   | 4 of 20 |
| 5b   | CHE101 General Chemistry 1   | 4 of 20 |
| 5c   | CHE102 General Chemistry 2   | 4 of 20 |
| 5d   | BIO206 General Microbiology or BIO205 Genetics                                     | 4 of 20 |
| 5e   | PHY122 College Physics 2   | 4 of 20 |
| 6    | MATHEMATICS  | 3       |
| 6a   | MAT121 Technical Math or higher (excluding MAT 129)                                |         |
| 7    | NANOTECHNOLOGY   | 21      |
| 7a   | NST100 Introduction to Nanotechnology  | 3 of 21 |
| 7b   | NST201 Materials, Safety, and Equipment Overview for Nanotechnology                | 3 of 21 |
| 7c   | NST202 Basic Nanotechnology Processes (Taken at ECC)                               | 3 of 21 |
| 7d   | NST203 Characterization of Nanotechnology Structures and Materials (Taken at ECC)  | 3 of 21 |
| 7e   | NST204 Materials in Nanotechnology (Taken at ECC)                                  | 3 of 21 |
| 7f   | NST205 Patterning for Nanotechnology (Taken at ECC)                                | 3 of 21 |
| 7g   | NST206 Vacuum Systems and Nanotechnology Applications                              | 3 of 21 |

| ITEM | REQUIREMENT                                    | CREDITS |
|------|--|---------|
|      | (Taken at ECC)                                 |         |
| 8    | HED/PED/ATH                                    | 2       |
| 8a   | Select 2 credits from any HED, PED, ATH option | 2 of 2  |
| 9    | TOTAL  | 61      |
| 10   | Reading and Math Proficiency Required          | 0       |
| 11   | Minimum QPI: 2.00                              | 0       |