# BERGEN COMMUNITY COLLEGE

# NEW YORK INSTITUTE OF TECHNOLOGY

## Associate in Applied Science General Engineering Technology

### Bachelor of Science in Electrical and Computer Engineering Technology

**2019** 

| Course  | Credit | Course  | Credit |
|---|--------|---|--------|
| First Semester (14 credits)                                       | Creuit | Course  | Creuit |
| ELC-101 DC-Circuit Analysis                                       | 4      | ETEC 110 Electrical Technology I              | 4      |
| PHY-185 Introduction to Physics                                   | 4      | PHYS 130 Introductory Physics                 | 4      |
| Pri 1-183 introduction to Physics                                 | 4      | + 1 Liberal Arts Elective credit              | 4      |
| WDT 101 En-11-1. Commonition I                                    | 2      | FCWR 101 Writing I                            | 2      |
| WRT-101 English Composition I Free Elective – <i>Recommended:</i> | 3      | MATH 135 Fundamentals of Precalculus I        | 3      |
|   | 3      | MATH 135 Fundamentals of Precalculus I        | 4      |
| MAT-160 Intermediate Algebra (4)                                  |        |   |        |
| Second Semester (15 credits)                                      |        |   |        |
| CHM-102 Chemistry in Context or                                   | 4      | FCSC 101 Foundations of Scientific Process*   | 4      |
| CHM-100 Introduction to Chemistry                                 |        | + 1 Liberal Arts Elective credit              |        |
| DFT-107 Drafting I  | 3      | -   | -      |
| ELC-201 AC-Circuit Analysis                                       | 4      | ETEC 120 Electrical Technology II             | 4      |
| ELC-203 Electronics I   | 4      | ETEC 131 Electronics Technology I             | 4      |
|   |        |   |        |
| Third Semester (16 credits)                                       |        |   |        |
| Humanities Elective – <i>Recommended</i> :                        | 3      | FCIQ 101 Foundations of Inquiry*              | 3      |
| HIS History or PHR Philosophy and Religion                        |        |   |        |
| DFT-207 Drafting II   | 3      | -   | -      |
| ELC-204 Electronics II  | 4      | ETEC 231 Electronics Technology II            | 4      |
| MFG-122 Machine Tool Principles I                                 | 3      | ETEC 490 Special Topics                       | 3      |
| WRT-202 Technical Writing   | 3      | FCWR 151 Writing II                           | 3      |
| Fourth Semester (15 credits)                                      |        |   |        |
| Social Science Elective – Recommended:                            | 3      | ICBS Behavioral Science Seminar*              | 3      |
| PSY Psychology or SOC Sociology or ANT Anthropology               |        |   |        |
| Free Elective – Recommended:                                      | 3      | MATH 136 Fundamentals of Precalculus II       | 4      |
| MAT-180 Precalculus (4)   |        |   |        |
| Elective Choice: DFT-209 or MFG-206                               |        |   |        |
| Recommended: MFG-206 Concepts of Industrial Design                | 3      | ETEC 491 Special Topics II                    | 3      |
| Elective Choice:  | 3-4    | Course Equivalent:                            | 3      |
| 1) DFT-210 Computer Aided Drafting I                              |        | 1) MTEC 210 Intro to Computer Aided Design    |        |
| 2) MFG-119 Pro/Engineer Design I                                  |        | 2) MTEC 210 Intro to Computer Aided Design    |        |
| 3) TEC-180 Problem Solving using Technology (4)                   |        | 3) CTEC 247 Applied Computational Analysis II |        |
| MFG-124 Applied Metrology   | 3      | -   | -      |
|   |        |   |        |
|   |        |   |        |
| TOTAL   | 60-61  | TOTAL   | 53     |

\*Transfer substitution awarded on the basis of this agreement.

Note – Recommended courses are identified to maximize transfer credit award to NYIT.

Fewer credits may transfer if "Recommended" courses are not completed.

### Program of Study at New York Institute of Technology Bachelor of Science in Electrical and Computer Engineering Technology

### Courses to be completed at NYIT:

| Major courses:   |   | <u>Credits</u> |  |  |
|--|---|----------------|--|--|
| ETEC 310   | Communication Circuits  | 4              |  |  |
| ETEC 325   | Applied Statistics  | 3              |  |  |
| ETEC 410   | Control Systems Technology                                      | 4              |  |  |
| ETEC 495   | Electrical Engineer Tech Senior Design or                       |                |  |  |
| CTEC 495   | Computer Technology Seminar Project                             | 3              |  |  |
| CTEC 204   | Programming Techniques I  | 3              |  |  |
| CTEC 208   | Programming Techniques II                                       | 3              |  |  |
| CTEC 216   | Digital Electronics   | 4              |  |  |
| CTEC 235   | Microcomputers I  | 4              |  |  |
| CTEC 241   | Circuit Design and Fabrication                                  | 4              |  |  |
| CTEC 243   | Applied Computational Analysis I                                | 3              |  |  |
| CTEC 247   | Applied Computational Analysis II <u>or</u> ETEC/CTEC Elective^ | 3              |  |  |
| CTEC 336   | Embedded Systems and IoT  | 4              |  |  |
| CTEC 350   | Microcontroller Based Systems                                   | 3              |  |  |
| IENG 240   | Engineering Economics   | 3              |  |  |
| IENG 251   | Project Engineering   | 3              |  |  |
| Cara and additional requirements.                                  |   |                |  |  |
| Core and additional requirements:  MATH 161 Basic Applied Calculus |   |                |  |  |
| PHYS 150   | Introductory Physics II   | 3<br>3         |  |  |
| FCSP 105   | Foundations of Speech Communication                             | 3              |  |  |
| FCWR 304   | Communication for Technical Professions                         | 3              |  |  |
| ICLT 3XX   | ICLT Literature Seminar   | 3              |  |  |
| ICPH 3XX   | ICPH Philosophy Seminar   | 3              |  |  |
| ICSS 309   | Technology and Global Issues                                    | 3              |  |  |
| Liberal Arts or Science Electives                                  |   | <u>4</u>       |  |  |
| Liberal Arts of Science Liectives                                  |   |                |  |  |
| Total credits at New York Institute of Technology:                 |   |                |  |  |
| ^Requirement determined by courses completed at Bergen CC          |   |                |  |  |

9/24/19 Dr. Babak Dastgheib-Beheshti, Dean Date

College of Engineering & Computing Sciences, NYIT

Effective Fall 2019