



Electronics Technology - Specialized Diploma (2020-21 Catalog)

SEMESTER-BY-SEMESTER PROGRAM MAP FOR FULL-TIME STUDENTS

Courses are listed in preferred order of completion

Plans can be modified to fit student needs by adding more semesters

Choose your courses with your Advisor.

| Developmental Education Courses (if required) | | |
|---|---------|----------------------|
| <input type="checkbox"/> | MATH020 | Pre-Algebra |
| <input type="checkbox"/> | MATH022 | Elementary Algebra |
| <input type="checkbox"/> | MATH026 | Intermediate Algebra |

Location: B= BETH, M= MROE, S=SBTH, E= ESTN, D= DIST *subject to change

| complete | Course # | Course Title | Credits | Gen Ed | Fall | Winter | Spring | Summer | Pre-requisites / Co-requisites | |
|------------|--------------------------|-------------------------|-------------------------------------|--------|------|---------|--------|---------|--------------------------------|-----------------------------------|
| Semester 1 | <input type="checkbox"/> | COLS101 | College Success | 1 | | B, M, D | ---- | B, M, D | D | |
| | <input type="checkbox"/> | ELEC101 | DC/AC Circuit Analysis I | 4 | CL | B, M | ---- | ---- | ---- | PRE: MATH026 or placement |
| | <input type="checkbox"/> | ELEC121 | Technical Computer Applications | 2 | | B | ---- | ---- | ---- | |
| | <input type="checkbox"/> | ELEC177 | Electronics Manufacturing I | 2 | | B | ---- | ---- | ---- | |
| | <input type="checkbox"/> | MATH140 | College Algebra | 3 | QL | B, M, D | ---- | B, M, D | B, M, D | PRE: MATH 026 or placement policy |
| | | Total Semester Credits: | 18 | | | | | | | |
| Semester 2 | <input type="checkbox"/> | ELEC126 | Digital Electronics I | 3 | | ---- | ---- | B | ---- | PRE: ELEC101 |
| | <input type="checkbox"/> | ELEC151 | DC/AC Circuit Analysis II | 4 | | ---- | ---- | B | ---- | PRE: ELEC101 PRE or CO: MATH140 |
| | <input type="checkbox"/> | ELEC155 | Introduction to Solid State Devices | 2 | | ---- | ---- | B | ---- | PRE: ELEC101 PRE or CO: EMEC115 |
| | <input type="checkbox"/> | EMEC115 | Mechanical Skills for Technicians | 1 | | ---- | ---- | B | ---- | |
| | | Total Semester Credits: | 10 | | | | | | | |
| | | Total Degree Credits | 63 | | | | | | | |

Program Narrative:

- The Specialized Diploma is a subset of first year of the Associate in Applied Science (AAS) in Electronics Technology.
- This is a practical curriculum that emphasizes a strong foundation in electronics fundamentals. Your studies will include:
- Core Coursework: Two semesters of DC/AC circuit analysis, one semester of digital electronics, and an introduction to solid state devices and prototyping.
- Mechanical Skills: Courses include Electronics Manufacturing and Mechanical Skills for Technicians.
- Computer Skills: We emphasize applications such as Multisim, MS Word, Excel, and PowerPoint.
- This program can be completed in the day or evening, on a full or part-time basis.
- Upon graduation, you will be prepared for entry level positions in electronics manufacturing, or you may choose to continue your education toward the AAS degree in Electronics Engineering Technology.

Program Learning Outcomes:

- Apply mathematics and reasoning to predict electronic circuit performance and to analyze data.
- Select and operate electronic test equipment such as digital multimeters, oscilloscopes, power supplies, and function generators to test and troubleshoot analog and digital circuits.
- Use computer technology to conduct research, analyze data, simulate circuit performance, design circuits, program microprocessors, and document findings.
- Fabricate electronic circuit layouts and electromechanical prototypes.

Career Information:

- The SD prepares graduates for entry level positions such as assembly work in electronics manufacturing. The industry standard for entry level electronic technicians is the AAS degree.
- See <https://northampton.emsicc.com/careers/electrical-and-electronic-equipment-assembler?region=Allentown-bethlehem-Easton,%20PA-NJ&radius> for information on career options for electronics assembly.

***It is the student's responsibility to be knowledgeable of NCC graduation requirements and to verify transfer requirements with the 4-year institution. Courses listed on the program map are based upon the assumption that prerequisites and courses taken in previous semesters will be successfully completed**