

Electrical Systems Technology (ES12)

Diploma eMap

This eMap, along with regular meetings with your program advisor and using DegreeWorks, will help you remain on track to finish your program as quickly as possible and graduate from Georgia Northwestern Technical College. This eMap is intended to be used when beginning the program in Fall semester. Starting the program in Spring or Summer semesters may alter the suggested courses or course availability. This pathway is based on the 2024-2025 academic year.



Please note: Students must select one specialization to complete the Electrical Systems Technology Diploma. Page one of this eMap contains the suggested courses to complete both specializations. See page 2 for individual specialization course sets.

| 1 st set of suggested courses | | | |
|------------------------------------------|--------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1060 | Electrical Prints, Schematics, and Symbols | 2 | <input type="checkbox"/> |
| IDFC 1007 | Industrial Safety Procedures | 2 | <input type="checkbox"/> |
| ELTR 1080 | Commercial Wiring I | 5 | <input type="checkbox"/> |
| ELTR 1090 | Commercial Wiring II | 3 | <input type="checkbox"/> |
| IDFC 1011 | Direct Current I | 3 | <input type="checkbox"/> |
| IDFC 1012 | Alternating Current I | 3 | <input type="checkbox"/> |

IDFC 1011 and IDFC 1012 are the recommended courses. Additional courses may be available to meet these requirements. See Course Catalog for more info.

| 2 nd set of suggested courses | | | |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1180 | Electrical Controls | 4 | <input type="checkbox"/> |
| ELTR 1250 | Diagnostic Troubleshooting | 2 | <input type="checkbox"/> |
| ELTR 1220 | Industrial PLC's | 4 | <input type="checkbox"/> |
| XXXX xxxx | Occupational Elective (Recommended course to fulfill the IET Specialization: ELTR 1270, N.E.C. Industrial Wiring Applications) | 4 | <input type="checkbox"/> |
| XXXX xxxx | Occupational Elective (Recommended course: ELTR 1525, Photovoltaic Systems to fulfill ECM Specialization AND earn PS11 Certificate) | 4 | <input type="checkbox"/> |

| 3 rd set of suggested courses | | | |
|------------------------------------------|-----------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1205 | Residential Wiring I | 3 | <input type="checkbox"/> |
| ELTR 1210 | Residential Wiring II | 3 | <input type="checkbox"/> |

| 4 th set of suggested courses | | | |
|------------------------------------------|------------------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ENGL 1005 | Applied Technical Communication | 3 | <input type="checkbox"/> |
| EMPL 1000 | Interpersonal Relations and Professional Development | 2 | <input type="checkbox"/> |
| MATH 1012 | Foundations of Mathematics | 3 | <input type="checkbox"/> |

Basic Skills Courses can be taken any semester where student has availability and when courses are offered.

Total Credit Hours: 43 Minimum Credit Hours Required for Graduation

Electrical Systems Technology Diploma Program Planning Notes:

- Courses for this Diploma are offered at the Gordon County Campus.
- Specialization Courses (see list page 2): Student must complete 10 credit hours of a specialization. Page 2 of this eMap includes the Electrical Construction and Maintenance Specialization *and* the Industrial Electrical Technology Specialization. An additional specialization (Feld Occupation Specialization) can be found on the Course Catalog.
- If course sets are taken as recommended on page 1, student will earn:
 - 1) Commercial Wiring (CW31) Certificate at the end of the 1st set.
 - 2) Photovoltaic Systems Installation and Repair Technician (PS11) Certificate at the end of the 2nd set, if ELTR 1525 is taken.
 - 3) Electrical Contracting Technician (ECL1) and Residential Wiring Technician (RW21) Certificate at the end of the 3rd set.
 - 4) Electrical Technician (ET51) Certificate and Industrial Electrical Controls (IE31) Certificate at the end of the 4th set.
 - 5) Electrical Systems Technology (ES12) Diploma with both the Electrical Construction and Maintenance Specialization *and* the Industrial Electrical Technology Specialization upon completion of the 4th set.

Additional information for the Electrical Systems Technology Diploma and program requirements can be found at [GNTC 2024-2025 Catalog](#).

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ELECTRICAL CONSTRUCTION AND MAINTENANCE SPECIALIZATION (10 Credit Hours)

| 1 st set of suggested courses | | | |
|------------------------------------------|--------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1060 | Electrical Prints, Schematics, and Symbols | 2 | <input type="checkbox"/> |
| IDFC 1007 | Industrial Safety Procedures | 2 | <input type="checkbox"/> |
| ELTR 1080 | Commercial Wiring I | 5 | <input type="checkbox"/> |
| ELTR 1090 | Commercial Wiring II | 3 | <input type="checkbox"/> |
| IDFC 1011 | Direct Current I | 3 | <input type="checkbox"/> |
| IDFC 1012 | Alternating Current I | 3 | <input type="checkbox"/> |

IDFC 1011 and IDFC 1012 are the recommend courses. Additional courses may be available to meet these requirements. See Course Catalog for more info.

| 2 nd set of suggested courses | | | |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1180 | Electrical Controls | 4 | <input type="checkbox"/> |
| XXXX xxxx | Occupational Elective (Recommended course: ELTR 1525, Photovoltaic Systems to fulfill ECM Specialization AND earn PS11 Certificate) | 4 | <input type="checkbox"/> |

| 3 rd set of suggested courses | | | |
|------------------------------------------|-----------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1205 | Residential Wiring I | 3 | <input type="checkbox"/> |
| ELTR 1210 | Residential Wiring II | 3 | <input type="checkbox"/> |

ELTR 1205 and ELTR 1210 fulfill course requirements for a specialization.

| 4 th set of suggested courses | | | |
|------------------------------------------|------------------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ENGL 1005 | Applied Technical Communication | 3 | <input type="checkbox"/> |
| EMPL 1000 | Interpersonal Relations and Professional Development | 2 | <input type="checkbox"/> |
| MATH 1012 | Foundations of Mathematics | 3 | <input type="checkbox"/> |

Basic Skills Courses can be taken any semester where student has availability and when courses are offered.

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Specialization eMaps continued on page 3.

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INDUSTRIAL ELECTRICAL TECHNOLOGY SPECIALIZATION (10 Credit Hours)

| 1 st set of suggested courses | | | |
|------------------------------------------|--------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1060 | Electrical Prints, Schematics, and Symbols | 2 | <input type="checkbox"/> |
| IDFC 1007 | Industrial Safety Procedures | 2 | <input type="checkbox"/> |
| ELTR 1080 | Commercial Wiring I | 5 | <input type="checkbox"/> |
| ELTR 1090 | Commercial Wiring II | 3 | <input type="checkbox"/> |
| IDFC 1011 | Direct Current I | 3 | <input type="checkbox"/> |
| IDFC 1012 | Alternating Current I | 3 | <input type="checkbox"/> |

IDFC 1011 and IDFC 1012 are the recommend courses. Additional courses may be available to meet these requirements. See Course Catalog for more info.

| 2 nd set of suggested courses | | | |
|------------------------------------------|---------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ELTR 1180 | Electrical Controls | 4 | <input type="checkbox"/> |
| ELTR 1250 | Diagnostic Troubleshooting | 2 | <input type="checkbox"/> |
| ELTR 1220 | Industrial PLC's | 4 | <input type="checkbox"/> |
| ELTR 1270 | N.E.C. Industrial Wiring Applications | 4 | <input type="checkbox"/> |

| 3 rd set of suggested courses | | | |
|------------------------------------------|------------------------------------------------------|-------|--------------------------|
| Course | | Hours | Completed |
| ENGL 1005 | Applied Technical Communication | 3 | <input type="checkbox"/> |
| EMPL 1000 | Interpersonal Relations and Professional Development | 2 | <input type="checkbox"/> |
| MATH 1012 | Foundations of Mathematics | 3 | <input type="checkbox"/> |

Basic Skills Courses can be taken any semester where student has availability and when courses are offered.

Additional information for the Electrical Systems Technology Diploma and program requirements can be found at [GNTC 2023-2024 Catalog](#).