

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 2026-2027 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	☐
IDFC 1007	Industrial Safety Procedures	2	☐
ELTR 1080	Commercial Wiring I	5	☐
ELTR 1090	Commercial Wiring II	3	☐
IDFC 1011	Direct Current I	3	☐
IDFC 1012	Alternating Current I	3	☐

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	☐
ELTR 1250	Diagnostic Troubleshooting	2	☐
ELTR 1220	Industrial PLC's	4	☐
XXXX xxxx	Occupational Elective (Recommended course to fulfill the IET Specialization: ELTR 1270, N.E.C. Industrial Wiring Applications)	4	☐
XXXX xxxx	Occupational Elective (Recommended course: ELTR 1525, Photovoltaic Systems to fulfill ECM Specialization AND earn PS11 Certificate)	4	☐

3 rd set of suggested courses			
Course		Hours	Completed
ELTR 1205	Residential Wiring I	3	☐
ELTR 1210	Residential Wiring II	3	☐

4 th set of suggested courses			
Course		Hours	Completed
ENGL 1005	Applied Technical Communication	3	☐
EMPL 1000	Interpersonal Relations and Professional Development	2	☐
MATH 1012	Foundations of Mathematics	3	☐

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.
- The Program Advisor for ES12 is Barry Williams, bwilliams@gntc.edu.

Additional information for the Electrical Systems Technology Diploma and program requirements can be found at [GNTC 2026-2027 Catalog](#).

See page 2 & 3 for eMaps that follow individual specializations.

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 2026-2027 academic year.



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	☐
IDFC 1007	Industrial Safety Procedures	2	☐
ELTR 1080	Commercial Wiring I	5	☐
ELTR 1090	Commercial Wiring II	3	☐
IDFC 1011	Direct Current I	3	☐
IDFC 1012	Alternating Current I	3	☐

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	☐
XXXX xxxx	Occupational Elective (Recommended course: ELTR 1525, Photovoltaic Systems to fulfill ECM Specialization AND earn PS11 Certificate)	4	☐

3 rd set of suggested courses			
Course		Hours	Completed
ELTR 1205	Residential Wiring I	3	☐
ELTR 1210	Residential Wiring II	3	☐

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	☐
EMPL 1000	Interpersonal Relations and Professional Development	2	☐
MATH 1012	Foundations of Mathematics	3	☐

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 2025-2026 Catalog](#).

Specialization eMaps continued on page 3.

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 2026-2027 academic year.



INDUSTRIAL ELECTRICAL TECHNOLOGY SPECIALIZATION (10 Credit Hours)

1 st set of suggested courses			
Course		Hours	Completed
ELTR 1060	Electrical Prints, Schematics, and Symbols	2	☐
IDFC 1007	Industrial Safety Procedures	2	☐
ELTR 1080	Commercial Wiring I	5	☐
ELTR 1090	Commercial Wiring II	3	☐
IDFC 1011	Direct Current I	3	☐
IDFC 1012	Alternating Current I	3	☐

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	☐
ELTR 1250	Diagnostic Troubleshooting	2	☐
ELTR 1220	Industrial PLC's	4	☐
ELTR 1270	N.E.C. Industrial Wiring Applications	4	☐

3 rd set of suggested courses			
Course		Hours	Completed
ENGL 1005	Applied Technical Communication	3	☐
EMPL 1000	Interpersonal Relations and Professional Development	2	☐
MATH 1012	Foundations of Mathematics	3	☐

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 2025-2026 Catalog](#).