

# Electrical Control Systems (EC22)

## 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.



### OCCUPATIONAL CURRICULUM (48 Credit Hours)

#### 1<sup>st</sup> set of suggested courses

Course	Hours	Completed
IDSY 1101 DC Circuit Analysis (occurs in MiniMester A)*	3	<input type="checkbox"/>
IDSY 1105 AC Circuit Analysis (occurs in MiniMester B)*	3	<input type="checkbox"/>
IDSY 1190 Fluid Power Systems*	4	<input type="checkbox"/>
IDSY 1130 Industrial Wiring*	4	<input type="checkbox"/>

IDSY 1101 and IDSY 1105 are the recommended courses as they may be pre-requisites or courses that help meet certificate requirements. Additional courses may meet this requirement. See Course Catalog for more info. IDSY 1190 is an added course to obtain an embedded certificate (RT41).

#### 2<sup>nd</sup> set of suggested courses

Course	Hours	Completed
IDSY 1110 Industrial Motor Controls I (Prerequisites: IDSY 1101 and IDSY 1105)	4	<input type="checkbox"/>

#### 3<sup>rd</sup> set of suggested courses

Course	Hours	Completed
IDSY 1210 Industrial Motor Controls II (Prerequisite: IDSY 1105, IDSY 1101, IDSY 1110)	4	<input type="checkbox"/>
IDSY 1195 Pumps and Piping Systems*	3	<input type="checkbox"/>
XXXX xxxx Occupational Elective: AUMF 1150, Introduction to Robotics*	3	<input type="checkbox"/>
XXXX xxxx Occupational Elective: AUMF 2060, Work Cell Design*	2	<input type="checkbox"/>

IDSY 1195 is an added course to obtain an embedded certificate (RT41). IDSY 1210 is strongly recommended to be taken prior to IDSY 1220. AUMF 2060 should be taken the same semester, or after completing, AUMF 1150.

#### 4<sup>th</sup> set of suggested courses

Course	Hours	Completed
IDSY 1120 Basic Industrial PLC's (Prerequisite: IDSY 1105, IDSY 1101, IDSY 1110)	4	<input type="checkbox"/>

#### 5<sup>th</sup> set of suggested courses

Course	Hours	Completed
IDSY 1220 Intermediate Industrial PLC's (Prerequisite: IDSY 1105, IDSY 1101, IDSY 1110, IDSY 1120)	4	<input type="checkbox"/>
IDSY 1230 Industrial Instrumentation (Strongly preferred the following courses are taken before IDSY 1220: IDSY 1105, IDSY 1101, IDSY 1110, IDSY 1120)	4	<input type="checkbox"/>

### BASIC SKILLS COURSES (8 Credit Hours)

Please note: Basic Skills Courses can be taken during the 4<sup>th</sup> and 5<sup>th</sup> set or anytime a suggested course is not available and student needs another course to meet hours.

#### Basic Skills 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 OR MATH 1013 Foundations of Mathematics OR Algebraic Concepts	3	<input type="checkbox"/>

### Total Credit Hours: 44 Minimum Credit Hours Required for Graduation

#### Electrical Control Systems Diploma Planning Notes:

- Courses for this Diploma are offered at the Floyd County Campus.
- (\*) Course can be taken any available semester. Course location/campus may vary.
- To complete a full-time schedule in the 4<sup>th</sup> or 5<sup>th</sup> set OR if an occupational curriculum course is at full capacity, student can be placed in a basic skills course and/or occupational elective course if they are open.
- If IDSY 1190, IDSY 1195, and AUMF courses (see Occupational Electives, 3<sup>rd</sup> set are completed, student will also earn a Robotic Technician (RT41) Certificate.

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