

# APPLIED INDUSTRIAL TECHNOLOGY (COMMUNICATION TRANSPORT SYSTEMS), ASSOCIATE OF APPLIED SCIENCE



Students must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training. The apprenticeship program prepares the student to earn a journey-level status in Communication Transport Systems, as well as earn an Associate of Applied Science degree in Applied Industrial Technology. A four year apprenticeship emphasizes the skill set required to be a highly skilled craftsman. Trade specifics include low voltage wiring, wireless communication transport system and other transmission mediums including fiberglass.

**Program contact:** Learn more

This degree program contains one or more embedded certificates which will be automatically awarded when the certificate requirements are completed. If you do not want to receive the embedded certificate(s), please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.

Learn more about how certificate credits apply to the related degree.

## Program Admission Requirements

- High School Diploma/GED
- 18 years old; Valid driver's license

## Other Information

- Students must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training. A four year apprenticeship emphasizes the skill set required to be a highly skilled craftsman.

## Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

- Use active listening and communication skills to ensure that the work is being performed correctly and efficiently.
- Communicate the scope of their work with crew members, general contractors, and end users.

- Work independently and as a member of a crew that is focused on a common goal within your scope of authority.
- Work in accordance with the Communication Workers of America's (CWA) Code of Ethics.
- Use appropriate personal protective equipment, tools and work safely in accordance with OSHA, employer and customer safety protocols, and policies.
- Apply basic math and electrical knowledge to transport cabling systems in an efficient manner following industry standards and safe work practices.
- Apply math, electrical and mechanical knowledge and interpret prints to install, terminate, test and commission basic copper and fiber transport systems using best practices, industry standards, and safe work practices.
- Apply math, electrical, mechanical, equipment and advanced copper and fiber knowledge to install, test, commission, and service end user equipment and systems using best practices, industry standards and safe work practices.
- Plan, lead and manage the implementation of the scope of work to complete the project to the end users' satisfaction.

## Suggested Semester Sequence

| First Semester   |  | Credit Hours |
|--|--|--------------|
| ATCW-1010  | Worker Safety for Communication Transport      | 2            |
| ATCW-1020  | Communications Worker History                  | 2            |
| ATCW-1040  | Basic Information Systems                      | 2            |
| ATCW-xxxx  | Elective                                       | 3            |
| Any Approved Ohio Transfer 36 Mathematics course <sup>1</sup>  |  | 3            |
| Select one of the following:   |  | 3            |
| ENG-1010   | College Composition I                          |              |
| ENG-101H   | Honors College Composition I                   |              |
| <b>Credit Hours</b>  |  | <b>15</b>    |
| Second Semester  |  | Credit Hours |
| ATCW-1210  | Introduction to Information Transport - Copper | 2            |
| ATCW-xxxx  | Elective                                       | 2            |
| ISET-1410  | Applied Electricity I                          | 3            |
| DEGR-xxxx  | General Elective (See List Below)              | 3            |
| Select one of the following:   |  | 2-3          |
| BADM-xxxx  | Business Elective                              |              |
| CNST-xxxx  | CNST Elective                                  |              |
| Select one of the following:   |  | 3            |
| IT-1090  | Computer Applications                          |              |
| IT-109H  | Honors Computer Applications                   |              |
| <b>Credit Hours</b>  |  | <b>15-16</b> |
| Third Semester   |  | Credit Hours |
| ATCW-1250  | Infrastructure Layout                          | 2            |
| ATCW-1270  | Grounding and Bonding                          | 1            |
| ATCW-2010  | Information Transport - Fiber                  | 2            |
| ATCW-2050  | Audio Visual                                   | 1            |
| DEGR-xxxx  | General Elective (See List Below)              | 3            |
| Social & Behavioral Science/Natural and Physical Science requirement (see AAB/AAS Degree Requirements) |  | 3            |

Select one of the following: 3

|           |                   |  |
|-----------|-------------------|--|
| BADM-xxxx | Business Elective |  |
| CNST-xxxx | CNST Elective     |  |

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**Credit Hours 15**

#### Fourth Semester

|                               |   |   |
|-------------------------------|---|---|
| AIT-2990                      | Contracting in a Diverse World              | 3 |
| ATCW-2070                     | Information Transport Circuits              | 1 |
| ATCW-2120                     | Advanced Systems Transport                  | 2 |
| COMM-1000                     | Fundamentals of Interpersonal Communication | 3 |
| DEGR-xxxx                     | General Elective (See List Below)           | 3 |
| Arts & Humanities requirement |   | 3 |

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**Credit Hours 15**

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**Total Credit Hours 60-61**

<sup>1</sup> MATH-1100 Mathematical Exploration or MATH-1240 Contemporary Mathematics taken prior to Fall 2024 will be accepted to meet mathematics requirement for this program.

## Electives

Recommended courses to fulfill elective requirements:

| Code      | Title                                   | Credit Hours |
|-----------|---|--------------|
| ACCT-1011 | Business Math Applications              | 3            |
| BADM-1050 | Professional Success Strategies         | 3            |
| BADM-1301 | Small Business Management               | 3            |
| BADM-1210 | Labor-Management Relations              | 3            |
| CNST-1290 | Construction Print Reading              | 2            |
| CNST-2131 | Construction Methods and Materials      | 3            |
| CNST-2631 | Construction Management Systems         | 3            |
| CNST-2990 | Construction Estimating & Cost Analysis | 3            |
| ESCI-1310 | Physical Geography                      | 3            |
| ESCI-1410 | Physical Geology                        | 3            |
| FIN-1061  | Personal Finance                        | 3            |
| GEN-1010  | Personal Development                    | 2            |
| HLTH-1230 | Standard First Aid and Personal Safety  | 1            |
| HLTH-1100 | Personal Health Education               | 3            |
| COMM-1010 | Fundamentals of Speech Communication    | 3            |
| COMM-101H | Honors Speech Communication             | 3            |
| DEGR-xxxx | Arts & Hum/Soc & Beh Sci/Nat & Phy Sci  |              |

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.