



Program and Career Description:

The Associate of Applied Science in Advanced Integrated Industrial Technology is a two-year degree program designed to prepare graduates for many different careers related to manufacturing with an emphasis on technology, critical thinking, and problem solving. Students will take courses in the basic fundamentals of engineering technology and move to very advanced applications including robotics. This degree is accredited by The Association of Technology, Management, and Applied Engineering (ATMAE).

Career	Beginning Salary	Experienced Salary Median
Industrial Machinery	\$32,750	\$46,780
Maintenance Workers	\$25,460	\$40,110
Electrical/Electronic Engineering Technicians	\$43,450	\$62,360
Maintenance & Repair Workers	\$23,910	\$34,580

Career and salary information taken from www.jobs4tn.gov. Check out this web site for additional information about education requirements and preferred work styles and abilities for these careers. Salaries are not guaranteed.

Transfer Options

This degree program is not designed for transfer to a four year college or university. However, some agreements are in place that will allow credit to be accepted on certain Baccalaureate degree paths. This program has pathways for articulation of some credit from the Colleges of Applied Technology (TCAT) to transfer toward the Associate of Applied Science degree. Please check with the transfer institution or your advisor for specific details.

Articulation agreements exist between other private and non-TN public institutions. These agreements are available at www.columbiastate.edu/admissions/transfer-information.

Major in Advanced Integrated Industrial Technology (A.A.S.)

**Options: Mechatronics
Multi Skilled Technician**

Program Requirements

Students may be required to take additional Learning Support courses.

Communications Requirement
ENGL 1010

Humanities/Fine Arts (Take one course)
ART 1030
ARTH 2010, 2020
ENGL 2015, 2130, 2230, 2330, 2920
HUM 1130, 1131
MUS 1030
PHIL 1030, 2030, 2033
THEA 1030

Mathematics Requirement (Take one course)
MATH 1010, 1130, 1530, 1630, 1710, 1720, 1730, 1830, 1910

Natural Science Requirement
PSCI 1030

Social/Behavioral Sciences (Take one course)
ECON 2010, 2020
GEOG 2010
PHED 2120
POL 201
POLS 1030, 1501, 2010
PSYC 1030, 2130
SOC 210
SOCI 1010, 1020, 2010

Major Required Courses
AIT 1001, 1002, 1003, 1101, 1102, 1201, 1202, 1203, 1301, 1302, 1401, 1402, 1403, 1501, 1502, 1503, 1600, 2101, 2102, 2201, 2202, 2205
INFS 1010

Option 1: Mechatronics
AIT 2001, 2103, 2215, 2300, 2310

Option 2: Multi Skilled Technician
AIT 1004, 2001, 2004, 2103
INT 134
Electives*

**Note: An elective can be any college-level course. IST 1500 and IST 1750 courses are strongly recommended. TCAT courses may be used for elective hours.*

Requirements for Graduation include:

- earning 25% of total program credits in residence at Columbia State.
- GPA of at least 2.0 in program courses.
- cumulative GPA must be at least 2.0.
- taking the Exit Exam.

If you have completed Regents Online Degree Program (RODP) courses, run a degree audit from the student tab in myChargerNet to determine how these courses apply to this program.

Sample Schedule

First Year – Fall Semester

___ Mathematics Requirement	3
___ AIT 1001 Basic Electricity	2
___ AIT 1002 Power Development	1
___ AIT 1003 Hydraulic/Pneumatic Fundamentals	1
___ AIT 1301 Principles of Instrumentation	2
___ AIT 1600 Workplace Safety	1
___ INFS 1010 Computer Applications	3
TOTAL	13

First Year – Spring Semester

___ ENGL 1010 English Composition I	3
___ AIT 1101 Electrical Power Distribution	1
___ AIT 1102 Fluid Power Distribution	2
___ AIT 1201 Electrical Installation	1
___ AIT 1202 Piping, Pneumatic and Installation	1
___ AIT 1203 Mechanical Installation	1
___ AIT 1302 Integrated Process Control	2
___ AIT 1401 Basic Electrical Controls	2
___ AIT 1402 Basic Pneumatic Controls	1
___ AIT 1403 Basic Hydraulic Controls	1
TOTAL	15

First Year – Summer Semester

___ Humanities/Fine Arts	3
___ AIT 2101 Predictive/Preventive Maintenance and Lubrication	1
___ AIT 2102 Power Transmission Systems	1
TOTAL	5

Second Year – Fall Semester

___ Social/Behavioral Sciences	3
___ PSCI 1030 Physical Science	4
___ AIT 1501 Intermediate Electrical Controls	2
___ AIT 1502 Intermediate Pneumatic Controls	1
___ AIT 1503 Intermediate Hydraulic Controls	1
___ AIT 2205 Robot Operations	2
___ AIT 2300 (Option 1) Fundamentals of Mechatronic Systems	2
___ INT 134 (Option 2) Machinery Handbook	1
___ AIT 1004 (Option 2) Introduction to Welding	1
TOTAL	15

Second Year – Spring Semester

___ AIT 2103 Advanced Mechanical	2
___ AIT 2001 Integrated Process Management	2
___ AIT 2201 Programmable Logic Controls	2
___ AIT 2202 Programmable Logic Controls Lab	2
___ AIT 2215 (Option 1) Advanced Robot Operations	2
___ AIT 2310 (Option 1) Advanced Mechatronics Systems	2
___ AIT 2004 (Option 2) CNC Programming	2
___ Electives* (Option 2)	2
TOTAL	12

TOTAL CREDIT HOURS 60

For more information contact:
Mehran Mostajir at mmostajir@columbiastate.edu
or 931.540.2711 or 931.398.8868
or
Science, Technology and Math Division office
at 931.540.2710