



Full-Time Pathway to Success

School of Manufacturing, Engineering, and Information Technology

IT – AI Data Specialist (10-156-3)

Associate of Applied Science

Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

O = Online, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*152-080	3	🎓 Databases		F
1	*152-081	3	🎓 Programming in Python		F
1	*156-018	3	Fundamentals of IT	Coreq: 804-135	F
1	804-135	3	Quantitative Reasoning ^{1,4}	Prereq: 834-109	F
2	*156-100	3	Data Analytics 1	Prereq: 152-081	S
2	*156-102	3	Intro to Artificial Intelligence	Prereq: 152-081	S
2	801-136	3	English Composition 1 ^{1,4}	Prereq: 831-103 OR 851-757	S
2	804-189	3	Statistics ⁴	Prereq: 804-135	S
3	*156-019	3	Intro to MIS	Coreq: 801-136	SU
3	*156-103	3	Intro to Machine Learning	Prereq: 152-081	SU
3	801-196 OR 801-198	3	Oral/Interpersonal Communication OR Speech		SU
3	809-198	3	Psychology, Intro to ^{1,4}	Prereq: 838-105 OR 851-757	SU
4	*156-101	3	Data Analytics 2	Prereq: 156-100; 152-080	F
4	*156-104	3	Natural Language Processing	Prereq: 156-102; 156-103	F
4	*156-120	3	Programming in R	Prereq: 156-100; 804-189	F
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
5	*156-105	3	AI for Computer Vision	Prereq: 156-102; 156-103	S
5	*156-125	3	Business Intelligence and Visualization	Prereq: 156-101; 156-120	S
5	*156-130	3	Data Analytics Capstone	Prereq: 156-101; 156-120 Coreq: 156-125	S
5	809-195 OR 809-143	3	Economics ^{1,4} OR Microeconomics ^{1,4}	Prereq: 838-105 OR 851-757	S

Minimum Program Total Credits Required: 61

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

IT – AI Data Specialist (10-156-3)

The *IT – AI Data Specialist* program trains students to identify, utilize, and interpret data from various sources, and to visualize that data to resolve business questions that impact data-driven decisions. Topics will include using current technologies to work with large data sets, securing data from various sources, database technologies, computer programming in Python and R, statistical analysis of data, creating visualizations and business intelligence, and completing real-world projects. Typical entry-level positions for this training opportunity include Operations Research Analyst, Computer Systems Analyst, Database Specialist, Data Analyst, and Junior Data Scientist.

Program Learning Outcomes

Graduates will be able to:

1. Collect large data sets from multiple sources.
2. Organize data using software tools.
3. Create visualizations of data to drive decision making.
4. Communicate technical information to stakeholders.

Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- *Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

Suggested Electives

152-182 Web Programming 1	152-097 JavaScript
152-184 Java Programming 1	150-106 Intrusion Detection Systems
138-118 International Bizsquad	152-106 Swift Programming 1
152-107 Swift Programming 2	

Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution, please review this information online at gtc.edu/transfer. If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
3. IT- AI Data Specialist is a laptop program. Students will need a Windows-based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.
4. A credit for prior learning assessment is available for this course. For more information, please contact cfpl@gtc.edu.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.