

## IT – AI Data Specialist (10-156-3)

Associate of Applied Science

**Effective 2026/2027**

*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.). More detailed scheduling information for this program can be found at <https://www.gtc.edu/data>. Please see your academic advisor for additional information.*

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

| Term | Course Number            | Credits | Course Title                                     | Requisites (prereq- before/ coreq-with) | Notes                                                                                                                                                                                | O  |
|------|--------------------------|---------|--------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 1    | 890-155                  | 1       | Gateway to Success (G2S)                         |                                         | • Students are required to take this course in their first semester of enrollment. Please see an advisor for details.                                                                | F  |
| 1    | *152-080                 | 3       | Databases                                        |                                         | • Faculty have identified this milestone course as providing a strong foundation for success throughout the program.                                                                 | F  |
| 1    | *152-081                 | 3       | Programming in Python                            |                                         | • Faculty have identified this milestone course as providing a strong foundation for success throughout the program.                                                                 | F  |
| 1    | *156-106                 | 3       | Introduction to Generative AI                    |                                         |                                                                                                                                                                                      | F  |
| 1    | 804-134                  | 3       | Mathematical Reasoning                           | Prereq: 854-760                         | • Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details. | 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                            | Prereq: 831-103 OR 851-757              | • Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details. | S  |
| 2    | 804-189                  | 3       | Statistics                                       | Prereq: 804-134                         |                                                                                                                                                                                      | S  |
| 3    | *152-103                 | 3       | Advanced Programming in Python                   | Prereq: 152-081                         |                                                                                                                                                                                      | SU |
| 3    | *156-103                 | 3       | Intro to Machine Learning                        | Prereq: 152-081                         |                                                                                                                                                                                      | SU |
| 3    | 801-196<br>OR<br>801-198 | 3       | Oral/Interpersonal Communication<br>OR<br>Speech |                                         |                                                                                                                                                                                      | SU |
| 3    | 809-198                  | 3       | Psychology, Intro to                             | Prereq: 838-105 OR 851-757              | • Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details. | SU |

(\*) Students must achieve a minimum of 2.0 ("C") or above for this major course to meet graduation requirements.

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| Term                                              | Course Number            | Credits | Course Title                            | Requisites (prereq- before/ coreq-with)                                           | Notes                                                                                                                                                                                                                                | O |
|---------------------------------------------------|--------------------------|---------|-----------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 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<br>Coreq: 801-136                                        |                                                                                                                                                                                                                                      | S |
| 5                                                 | *156-130                 | 3       | Data Analytics Capstone                 | Prereq: 156-101; 156-120<br>Coreq: 156-125                                        |                                                                                                                                                                                                                                      | S |
| 5                                                 | 809-195<br>OR<br>809-143 | 3       | Economics<br>OR<br>Microeconomics       | Prereq: 838-105 OR 851-757                                                        | <ul style="list-style-type: none"> <li>Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.</li> </ul> | S |
| <b>Minimum Program Total Credits Required: 61</b> |                          |         |                                         |                                                                                   |                                                                                                                                                                                                                                      |   |

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## 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 Analyze data.
- 2 Query data.
- 3 Perform data extraction, transformation and loading (ETL).
- 4 Create reports.
- 5 Communicate with 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:

- 1 Communication Competence
- 2 Critical Thinking and Problem Solving
- 3 Professionalism and Career Management
- 4 Teamwork and Collaboration
- 5 Cultural Competence
- 6 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.

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. The District reserves the right to modify, cancel, or relocate course offerings in response to factors such as low enrollment, resource availability, or other relevant considerations to ensure high-quality educational experiences. Students will be notified in writing and are encouraged to meet with their Academic Advisor to adjust their academic plan.

### Graduation Requirements

- 1 Minimum 61 credits with a cumulative GPA of 2.0 or above.
- 2 \*Minimum of 2.0 ("C") or above for these major courses.
- 3 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 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](http://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.
- 2 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.