

CTAFI: ARTIFICIAL INTELLIGENCE APPLICATIONS

History

1. Mar 25, 2026 by Carol Evans (cacevans)
2. Mar 25, 2026 by Carol Evans (cacevans)
3. Mar 27, 2026 by Carol Evans (cacevans)
4. Apr 17, 2026 by Sera Bird (sabird)

Viewing: CTAFI : Artificial Intelligence Applications

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Program Cover

Program Name

Artificial Intelligence Applications

Transcript Title

AI Applications

Department

Computer Instruction Dept

Division/College

Business/Computer Technologies

Academic Level

Credit

Program Code

CTAFI

Type of Award

Certificate

Does this program lead to licensure?

No

Is this intended to be an embedded program?

No

Is this program occupational?

Yes

Is it state approved?

No

CIP Code

110102 - Artificial Intelligence.

Purpose

Rationale

Add program assessment plan according to recently approved program proposal documents.

Effective Catalog

Fall 2026

Proposed Effective Term

Fall 2026

Program Curriculum**Minimum Credits Required for the Program: 14**

Code	Title	Credits
CIS 120	Linux/UNIX I: Fundamentals	3
CPS 141	Introduction to Programming Using Python	4
CIS 282	Database Principles and Application *	3
CPS 242	AI Agent Development **	4
Total Credits		14

* CIS 282 requires CPS 141 as a prerequisite

** CIS 282 is a prerequisite for CPS 242 (can be taken concurrently)

Program Description for Catalog

The Certificate in AI Applications provides students with hands-on training to design and build intelligent software systems using Python, Linux, databases, and modern AI tools. Through project-based coursework, students learn to integrate AI features into secure, full-stack web applications. The program prepares students for entry-level roles in software and AI development, supports upskilling for working professionals, and offers a stackable pathway that can later be applied toward related IT and programming degrees at WCC.

Admission/Eligibility Requirements**Program admission requirements****Program Admission Requirements**

Academic Reading and Writing levels of 6 and Academic Math Level 3 are required to enroll in CPS 141 Introduction to Programming Using Python.

Additional program information (articulation, accreditation, advisors)**Program Assessment Plan****Learning Outcome****Learning Outcome**

Use the Linux/UNIX command line interface (CLI) to accomplish standard tasks.

Assessment #1**Assessment Tool**

Outcome-related lab assignments

Anticipated Next Assessment Year

2029

Anticipated Next Assessment Term

Fall

Anticipated assessment population

Other

If not including all students from all sections, please provide an estimation of how many students will be included, and how you're planning to ensure representation for all schedule types, delivery methods, full-time and part-time students, all instructors, etc.

CIS 120; All students from all sections

Standard of success to be used for this assessment

70% of students will score 75% or higher.

Who will score and analyze the data?

Departmental faculty

Scoring/evaluation tool (attach if possible)

Answer key(s) and developmentally-developed rubric(s)

Assessment #2

Learning Outcome

Learning Outcome

Apply techniques of data management.

Assessment #1

Assessment Tool

Outcome-related final exam questions

Anticipated Next Assessment Year

2029

Anticipated Next Assessment Term

Fall

Anticipated assessment population

Other

If not including all students from all sections, please provide an estimation of how many students will be included, and how you're planning to ensure representation for all schedule types, delivery methods, full-time and part-time students, all instructors, etc.

CIS 282; All students from all sections

Standard of success to be used for this assessment

70% of students will score 70% or higher.

Who will score and analyze the data?

Departmental faculty

Scoring/evaluation tool (attach if possible)

Answer key(s) and departmentally-developed rubric(s)

Assessment #2

Learning Outcome

Learning Outcome

Develop secure and functional AI-driven applications using Python and industry-standard AI model APIs.

Assessment #1

Assessment Tool

Outcome-related programming project

Anticipated Next Assessment Year

2029

Anticipated Next Assessment Term

Fall

Anticipated assessment population

Other

If not including all students from all sections, please provide an estimation of how many students will be included, and how you're planning to ensure representation for all schedule types, delivery methods, full-time and part-time students, all instructors, etc.

CPS 242; All students from all sections

Standard of success to be used for this assessment

70% of students will score 70% or higher.

Who will score and analyze the data?

Departmental faculty

Scoring/evaluation tool (attach if possible)

Answer key(s) and departmentally-developed rubric(s)

Assessment #2

Learning Outcomes Display (show only)

Course Code	PLO 1	PLO 2	PLO 3
CIS 120			
CPS 141			
CIS 282			
CPS 242			

Budget

Additional Information

Is this a substantive change?

No

Key: 154

PROGRAM PROPOSAL FORM

- Preliminary Approval** – Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.
- Final Approval** – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

<p>Program Name:</p> <p>Division and Department:</p> <p>Type of Award:</p> <p>Effective Year (new programs are always effective in the Fall term):</p> <p>Initiator:</p>	<p><u>Artificial Intelligence Applications</u></p> <p><u>Business/Computer Technologies (CSIT department)</u></p> <p> <input type="checkbox"/> AA <input type="checkbox"/> AS <input type="checkbox"/> AAS <input checked="" type="checkbox"/> Cert. <input type="checkbox"/> Adv. Cert. <input type="checkbox"/> Post-Assoc. Cert. <input type="checkbox"/> Cert. of Comp. </p> <p><u>Fall 2026</u></p> <p><u>Jing Bai / Scott Shaper</u></p>	<p>Program Code:</p> <p>CTAFI</p> <p>CIP Code:</p> <p><u>11.0102</u></p>
<p>Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program.</p>	<p>Program's purpose and its goals:</p> <p>The Certificate in Artificial Intelligence Applications is designed to prepare students for entry-level roles and project-based work involving AI-enabled systems. This program emphasizes the practical integration of artificial intelligence tools and techniques into real-world software environments. Students develop foundational programming skills, gain experience working with databases and Linux systems, and learn to design and deploy intelligent applications using Python and industry-standard AI frameworks.</p> <p>Entry Criteria:</p> <p>The program is open to both degree-seeking and non-degree-seeking students, including returning adult learners and workforce upskilling participants. Students may begin the program without prior coding experience.</p> <p>Projected Enrollment:</p> <p>20-30 students in the first semester.</p> <p>Connection to other WCC programs:</p> <p>The Certificate in AI Applications is designed as the first phase of a two-stage program development initiative.</p> <ul style="list-style-type: none"> • Phase 1 Standalone certificate: The certificate will operate as a standalone, stackable credential accessible to both new and returning students. • Phase 2 Integration into the Programming in Java Associate Degree (ASCSPJ): Following the successful rollout of the certificate, the department intends to pursue a second development phase in which the certificate can be embedded into the existing Programming in Java associate degree. 	

<p>Need</p> <p>Need for the program with evidence to support the stated need.</p>	<p>The demand for AI-related competencies, including Python programming, machine learning fundamentals, data handling, and AI-enabled application development is rapidly increasing across nearly all sectors of the economy. According to research released by the University of Maryland and new analysis at UMD-LinkUp AI Maps, AI job postings in the United States “have ramped up dramatically, from 29,509 in Q4 2022 to 49,577 in Q4 2024, an uptick of 68 percent”.</p> <p>In addition to workforce demand, there is also a strategic need for our college to remain competitive with regional institutions. Other colleges and universities in Michigan, including both community colleges and four-year institutions, have begun launching AI-related certificates or degrees.</p>		
<p>Curriculum</p> <p>List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list.</p> <p>Associate degree programs must provide a semester by semester program layout.</p>	<p>Course list:</p> <p>CIS 120: Linux/UNIX I: Fundamentals (3 credits)</p> <p>CPS 141: Introduction to Programming Using Python (4 credits)</p> <p>CIS 282: Database Principles and Application (3 credits)*</p> <p>CPS 242: AI Agent Development (4 credits)**</p> <p><i>* CIS 282 requires CPS 141 as a prerequisite.</i></p> <p><i>** CIS 282 is a prerequisite for CPS 242 (can be taken concurrently).</i></p> <p>Minimum credits required: 14 credits</p>		
<p>Budget</p> <p>Specify program costs in the following areas, per academic year:</p>		<p>START-UP COSTS</p>	<p>ONGOING COSTS</p>
	<p>Faculty</p>	<p>\$.</p>	<p>\$.</p>
	<p>Training/Travel</p>	<p>.</p>	<p>.</p>
	<p>Materials/Resources</p>	<p>.</p>	<p>.</p>
	<p>Facilities/Equipment</p>	<p>.</p>	<p>.</p>
	<p>Other</p>	<p>.</p>	<p>.</p>
	<p>TOTALS:</p>	<p>\$.</p>	<p>\$.</p>
<p>Program Description for Catalog and Web site</p>	<p>The Certificate in AI Applications provides students with hands-on training to design and build intelligent software systems using Python, Linux, databases, and modern AI tools. Through project-based coursework, students learn to integrate AI features into secure, full-stack web applications. The program prepares students for entry-level roles in software and AI development, supports upskilling for working professionals, and offers a stackable pathway that can later be applied toward related IT and programming degrees at WCC.</p>		
<p>Program Information</p>	<p>Accreditation/Licensure -</p> <p>Advisors – Jing Bai and Scott Shaper</p> <p>Advisory Committee -</p> <p>Admission requirements – Academic reading and writing levels of 6 and academic math level 3 are required to enroll in CPS 141: Introduction to Programming Using Python</p> <p>Articulation agreements -</p>		

	Continuing eligibility requirements -
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Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
Use the Linux/UNIX command line interface (CLI) to accomplish standard tasks.	Outcome-related lab assignments	Every three years	CIS 120: Linux/UNIX I: Fundamentals	All students from all sections.
Apply techniques of data management.	Outcome-related final exam questions	Every three years	CIS 282: Database Principles and Application	All students from all sections.
Develop secure and functional AI-driven applications using Python and industry-standard AI model APIs.	Outcome-related programming Project	Every three years	CPS 242: AI Agent Development	All students from all sections.

Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally-developed rubric, external evaluation, other). Attach the rubric.

The above assessments will be scored and evaluated using answer keys and departmentally-developed rubrics.

2. Indicate the standard of success to be used for this assessment.

Outcome 1 (CIS 120): 70% of students will score 75% or higher.
 Outcome 2 & 3 (CIS 282 & CPS 242): 70% of students will score 70% or higher.

3. Indicate who will score and analyze the data.

Departmental faculty.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	Ed Szurek	<i>Ed Szurek</i>	11/19/2025
Dean	Eva Samulski	<i>Eva Samulski</i>	Nov. 19, 2025
Please return completed form to the Office of Curriculum and Assessment (SC 257) or by email to curriculum.assessment@wccnet.edu. Once reviewed by the appropriate faculty committees, we will secure the signature of the VPI and President.			
Curriculum Committee Chair	Randy Van Wagnen	<i>Randy Van Wagnen</i>	1/22/26
Assessment Committee Chair	Jessica Hale	<i>J. Hale</i>	1/22/26
Executive Vice President for Instruction <input type="checkbox"/> Approved for Development <input checked="" type="checkbox"/> Final Approval	Dr. Brandon Tucker	<i>Brandon Tucker</i>	2/16/26
President	Dr. Rose B. Bellanca	<i>Rose Bellanca</i>	2/17/26
Board Approval			3/26/2026