Wayne Community College
Program Review – 2021-2022

Name of Program: AI and Cloud Technologies

Section 1: Program Overview

Mission/Purpose: *As part of the review cycle, programs are asked to formally evaluate their mission/purpose statement.*

Please provide your current mission/purpose statement.

The mission of the Information Systems Technology Department is to provide graduates with the skills for employment in diverse computer technology environments.

Are you planning to revise your mission/purpose statement? If so, please provide your revised mission/purpose statement and reason for the change.

Not applicable.

Describe how the program's mission aligns with the College's vision, mission, core values, and strategic goals. Identify which Institutional Goal(s) best align with your program and explain why.
  Goal 1: Increase Student Access
  Goal 2: Ensure Program Excellence
  Goal 3: Improve Student Success
  Goal 4: Ensure Institutional Quality

The program mission statement reflects the mission statement of the college: the goal is to prepare students to enter the workforce by equipping them with skills needed in the industry. Goal 3 best aligns with the program, as we strive to create successful graduates.

Associates, Diplomas, Certificates, and Pathways Offered: Please list all associates, diplomas, certificates, and pathways offered in the table below.

Program Type (Associate, Diploma, Certificate, or Pathway)	Program Title
Associate	AI and Cloud Technologies Degree
Certificate	Artificial Intelligence Consultant 1 Certificate
Certificate	Artificial Intelligence Consultant 2 Certificate
Certificate	Artificial Intelligence Fundamentals Certificate
Certificate	Chatbot Development Certificate
Certificate	Network Systems Certificate
Certificate	Systems and Hardware Support Certificate
Certificate	Virtualization Support Certificate
Certificate	Virtualization Technologies Certificate

Activities to ensure program is current (2019-20; 2020-21; 2021-22 – Academic Year, Fall, Spring, Summer)
List program curriculum changes, revisions, and/or deletions.

Curriculum Changes	Date – Updated / Revised / Deleted
Changed program name, added new classes & certificates, deleted some classes, changed course sequence.	2021-2022 Fall

Provide an overview of the significance of the program changes and improvements that occurred over the past three years. *(What were the program's / discipline's goals and rationale for expanding and improving student learning, including new courses, program degrees, certificates, diplomas, and/or delivery methods?)*

This change was a massive overhaul of the program, which had previously been called "Cloud Computing." This change added A.I. classes to the program to make it more marketable and relevant to current industry needs.

Advisory Committee: dates, summary of minutes, activities (2019-20; 2020-21; 2021-22 – Academic Year – Fall, Spring, Summer)

Summary of Advisory Committee Activities

Year	Meeting Dates	Recommendations / Activities
2019-2020	October 29, 2019	The fall meeting covered recommended hard skills for courses related to service desk, tech support, system admin, cybersecurity, storage, and virtualization. During the webinar, there was discussion about the need for updated motion capture technology. Refer to the meeting minutes on file for more details.
2020-2021	Spring 2020 cancelled because of the pandemic	Not applicable.
2021-2022	March 31, 2021	The meeting focused on being productive and successful in IT now that the workplace has changed because of the pandemic.

(Ensure that Advisory Committee Meeting Minutes are filed in the IE Shared Program Folder.)

Provide narrative for analysis of trends in the field or industry (emerging needs) that contribute to maintaining program relevance. *(Based on advisory committee suggestions, environmental scans, industry demands, and other sources external to the program/discipline, how well is the program/discipline responding to the current and emerging needs of the industry and/or community? What resources might your program need?*

A.I. is an ever-growing discipline that touches countless industries, information systems technology being particularly affected. It is logical and needful to give students in IST programs some exposure to A.I. concepts and skills.

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Section 2: Program Outcomes

Outcome #1: Enrollment *(unduplicated)*

Baseline: **2** # (*Average of total enrollment for the last three years – 2018-19; 2019-20; 2020-21*)
Standard: **3** #
Target: **4** #

Program Enrollment

Program Enrollment (unduplicated)	
Academic Year (Fall, Spring, Summer)	**Enrollment**
2018-2019	1
2019-2020	2
2020-2021	2

Enrollment by Ethnicity, Gender, and Age

Ethnicity & Gender	2018-2019		2019-2020		2020-2021	
	N	%	N	%	N	%
African American, Female	0	0.0%	0	0.0%	0	0.0%
American Indian/Alaskan Native, Female	0	0.0%	0	0.0%	0	0.0%
Asian, Female	0	0.0%	0	0.0%	0	0.0%
Caucasian, Female	0	0.0%	0	0.0%	0	0.0%
Hawaiian/Other Pacific Islander, Female	0	0.0%	0	0.0%	0	0.0%
Hispanic/Latino, Female	0	0.0%	0	0.0%	0	0.0%
Two or More Races, Female	0	0.0%	1	50.0%	0	0.0%
Unknown, Female	0	0.0%	0	0.0%	0	0.0%
Female Total	0	0.0%	1	50.0%	0	0.0%
African American, Male	0	0.0%	0	0.0%	1	50.0%
American Indian/Alaskan Native, Male	0	0.0%	0	0.0%	0	0.0%
Asian, Male	0	0.0%	0	0.0%	0	0.0%
Caucasian, Male	0	0.0%	0	0.0%	1	50.0%
Hawaiian/Other Pacific Islander, Male	0	0.0%	0	0.0%	0	0.0%
Hispanic/Latino, Male	1	100.0%	1	50.0%	0	0.0%
Two or More Races, Male	0	0.0%	0	0.0%	0	0.0%
Unknown, Male	0	0.0%	0	0.0%	0	0.0%
Male Total	1	100.0%	1	50.0%	2	100.0%
Total	1	100.0%	2	100.0%	2	100.0%

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Ethnicity & Age Range	2018-2019		2019-2020		2020-2021	
	N	%	N	%	N	%
African American, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
American Indian/Alaskan Native, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
Asian, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
Caucasian, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
Hawaiian/Other Pacific Islander, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
Hispanic/Latino, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
Two or More Races, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
Unknown, Under the age of 18	0	0.0%	0	0.0%	0	0.0%
Under the age of 18 Total	0	0.0%	0	0.0%	0	0.0%
African American, 18-24	0	0.0%	0	0.0%	1	50.0%
American Indian/Alaskan Native, 18-24	0	0.0%	0	0.0%	0	0.0%
Asian, 18-24	0	0.0%	0	0.0%	0	0.0%
Caucasian, 18-24	0	0.0%	0	0.0%	0	0.0%
Hawaiian/Other Pacific Islander, 18-24	0	0.0%	0	0.0%	0	0.0%
Hispanic/Latino, 18-24	0	0.0%	0	0.0%	0	0.0%
Two or More Races, 18-24	0	0.0%	1	50.0%	0	0.0%
Unknown, 18-24	0	0.0%	0	0.0%	0	0.0%
18-24 Total	0	0.0%	1	50.0%	1	50.0%
African American, 25-44	0	0.0%	0	0.0%	0	0.0%
American Indian/Alaskan Native, 25-44	0	0.0%	0	0.0%	0	0.0%
Asian, 25-44	0	0.0%	0	0.0%	0	0.0%
Caucasian, 25-44	0	0.0%	0	0.0%	0	0.0%
Hawaiian/Other Pacific Islander, 25-44	0	0.0%	0	0.0%	0	0.0%
Hispanic/Latino, 25-44	1	100.0%	1	50.0%	0	0.0%
Two or More Races, 25-44	0	0.0%	0	0.0%	0	0.0%
Unknown, 25-44	0	0.0%	0	0.0%	0	0.0%
25-44 Total	1	100.0%	1	50.0%	0	0.0%
African American, 45-64	0	0.0%	0	0.0%	0	0.0%
American Indian/Alaskan Native, 45-64	0	0.0%	0	0.0%	0	0.0%
Asian, 45-64	0	0.0%	0	0.0%	0	0.0%
Caucasian, 45-64	0	0.0%	0	0.0%	1	50.0%
Hawaiian/Other Pacific Islander, 45-64	0	0.0%	0	0.0%	0	0.0%
Hispanic/Latino, 45-64	0	0.0%	0	0.0%	0	0.0%
Two or More Races, 45-64	0	0.0%	0	0.0%	0	0.0%
Unknown, 45-64	0	0.0%	0	0.0%	0	0.0%
45-64 Total	0	0.0%	0	0.0%	1	50.0%
African American, 65+	0	0.0%	0	0.0%	0	0.0%
American Indian/Alaskan Native, 65+	0	0.0%	0	0.0%	0	0.0%
Asian, 65+	0	0.0%	0	0.0%	0	0.0%
Caucasian, 65+	0	0.0%	0	0.0%	0	0.0%
Hawaiian/Other Pacific Islander, 65+	0	0.0%	0	0.0%	0	0.0%
Hispanic/Latino, 65+	0	0.0%	0	0.0%	0	0.0%
Two or More Races, 65+	0	0.0%	0	0.0%	0	0.0%
Unknown, 65+	0	0.0%	0	0.0%	0	0.0%
65+ Total	0	0.0%	0	0.0%	0	0.0%
Total	1	100.0%	2	100.0%	2	100.0%

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Provide narrative for analysis of program enrollment. *(Is enrollment increasing or decreasing? What are possible reasons for increase/decrease? Describe any action plans to improve or increase program enrollment.)*

Enrollment has stayed low for several years. The large curriculum change in 2021 was the effort to increase enrollment. The goal was to increase student interest and skill marketability by adding Artificial Intelligence content.

Identify Enrollment Action Items

Item	Action Items *(What actions can be taken to increase enrollment in your program?)*	Assessment of Action Items *(How will you assess the results of action items?)*
1	Advertise the program at college recruitment events.	Track the enrollment in the program after recruitment events.

Outcome #2: Retention

Baseline: **N/A** % (*Average of last three years – 2018-19; 2019-20; 2020-21; program retention*)
Unable to set baseline; Baseline will be established when 3 years of program data is achieved.
Standard: **2** %
Target: **3** %

Year	Program Retention Rate
2018-2019	
2019-2020	100%
2020-2021	100%

Disaggregated data for Retention s by Ethnicity, Gender, and Age are not available.

Provide narrative for analysis of program retention data. *(Based on the data, provide a narrative of your analysis of retention. Indicate factors that may have affected your retention. State any changes you plan to make to improve retention.)*

The few students enrolled were retained. The low enrollment may have been beneficial in this case, as the student-to-teacher ratio is low.

Identify Retention Action Items

Item	Action Items *(What actions can be taken to increase program retention?)*	Assessment of Action Items *(How will you assess the results of action items?)*
1	Build professional, individual rapport with students to encourage retention.	Observe the retention rates.

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Outcome #3: Completers *(unduplicated) (Degree level, highest level of attainment)*

Baseline: **N/A #** (*Average of total completers for the last three years – 2019-20; 2020-21; 2021-22*)
               Unable to set baseline; Baseline will be established when 3 years of program data is achieved.
Standard: **2 #**
Target: **3 #**

Number of Completers (*unduplicated*) – Graduation Year – Summer, Fall, Spring	
Graduation Year	**Total Completers**
2019-2020	
2020-2021	
2021-2022	2

Completers by Ethnicity, Gender, and Age

	2021-2022	
Ethnicity & Gender	N	%
African American, Female	1	50.0%
American Indian/Alaskan Native, Female	0	0.0%
Asian, Female	0	0.0%
Caucasian, Female	0	0.0%
Hawaiian/Other Pacific Islander, Female	0	0.0%
Hispanic/Latino, Female	0	0.0%
Two or More Races, Female	0	0.0%
Unknown, Female	0	0.0%
Female Total	1	50.0%
African American, Male	0	0.0%
American Indian/Alaskan Native, Male	0	0.0%
Asian, Male	0	0.0%
Caucasian, Male	0	0.0%
Hawaiian/Other Pacific Islander, Male	0	0.0%
Hispanic/Latino, Male	1	50.0%
Two or More Races, Male	0	0.0%
Unknown, Male	0	0.0%
Male Total	1	50.0%
Total	2	100.0%

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Ethnicity & Age Range Table	2021-2022	
	N	%
African American, Under the age of 8	0	0.0%
American Indian/Alaskan Native, Under the age of 18	0	0.0%
Asian, Under the age of 18	0	0.0%
Caucasian, Under the age of 18	0	0.0%
Hawaiian/Other Pacific Islander, Under the age of 18	0	0.0%
Hispanic/Latino, Under the age of 18	0	0.0%
Two or More Races, Under the age of 18	0	0.0%
Unknown, Under the age of 18	0	0.0%
Under the age of 18 Total	0	0.0%
African American, 18-24	0	0.0%
American Indian/Alaskan Native, 18-24	0	0.0%
Asian, 18-24	0	0.0%
Caucasian, 18-24	0	0.0%
Hawaiian/Other Pacific Islander, 18-24	0	0.0%
Hispanic/Latino, 18-24	1	50.0%
Two or More Races, 18-24	0	0.0%
Unknown, 18-24	0	0.0%
18-24 Total	1	50.0%
African American, 25-44	1	50.0%
American Indian/Alaskan Native, 25-44	0	0.0%
Asian, 25-44	0	0.0%
Caucasian, 25-44	0	0.0%
Hawaiian/Other Pacific Islander, 25-44	0	0.0%
Hispanic/Latino, 25-44	0	0.0%
Two or More Races, 25-44	0	0.0%
Unknown, 25-44	0	0.0%
25-44 Total	1	50.0%
African American, 45-64	0	0.0%
American Indian/Alaskan Native, 45-64	0	0.0%
Asian, 45-64	0	0.0%
Caucasian, 45-64	0	0.0%
Hawaiian/Other Pacific Islander, 45-64	0	0.0%
Hispanic/Latino, 45-64	0	0.0%
Two or More Races, 45-64	0	0.0%
Unknown, 45-64	0	0.0%
45-64 Total	0	0.0%
African American, 65+	0	0.0%
American Indian/Alaskan Native, 65+	0	0.0%
Asian, 65+	0	0.0%
Caucasian, 65+	0	0.0%
Hawaiian/Other Pacific Islander, 65+	0	0.0%
Hispanic/Latino, 65+	0	0.0%
Two or More Races, 65+	0	0.0%
Unknown, 65+	0	0.0%
65+ Total	0	0.0%
Total	2	100.0%

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Provide narrative for analysis of completers. *(Based on the data, provide a narrative of your analysis of completions. Indicate factors that may have affected your completions. How might you increase the number of completers in your program?)*

Both students completed. Again, the low enrollment may have been beneficial in this case, as the student-to-teacher ratio is low.

Identify Completer Action Items

Item	Action Items *(What actions can be taken to increase student completion in your program?)*	Assessment of Action Items *(How will you assess the results of action items?)*
1	Communicate frequently and effectively with advisees to encourage success.	Observing the number of graduates.

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Section 3: Other Assessments

Do you use other methods of assessment to evaluate the effectiveness of your program, *to include surveys, self-assessments, student licensure/certification, or third-party credentials? If so, please explain how information collected from the(se) assessments can be used to improve the program.)*

EvaluationKIT surveys are administered each semester, which allow students to give direct feedback relating to the courses. If a criticism is common, that is an indication something needs to be changed. Assessment of grades is also useful: Low grades overall indicate the curriculum needs improvement. Improving the quality of individual classes improves the quality of the program as a whole.

Planning Objectives (2019-20; 2020-21; 2021-22 – Fiscal Year, July 1-June 30)
Provide a summary of planning objectives submitted for the last three years, including the use of results of the planning objectives in the table provided.

Summary of Planning Objectives

Planning Year (Fiscal Year – July 1-June 30)	Objective(s) Submitted	Use of Results
2019-20	1) Information Systems Technology – Motion Capture Suit 2) Information Systems Technology – (9) SGD computers, with hardware that has the potential to support SGD activities 3) Information Systems Technology - (2) Laptops and (2) USB cameras	1) 2019-20 End-of-Year Status Report: Awaiting receipt. Unable to assess objective due to COVID campus shut-down, stay-at-home orders. Carry forward to the 2020-21 Plan to report assessment. 2020-21 End-of-Year Status Report and Use of Results: Because of COVID-19 protocols, the devices will not be used until conditions change. The devices will likely be put into service during Spring 2022 at the latest. Carry forward to 2021-22 Plan to report assessment. 2) 2019-20 End-of-Year Status Report: Awaiting receipt. Unable to assess objective due to COVID campus shut-down, stay-at-home orders. Carry forward to the 2020-21 Plan to report assessment. 2020-21 End-of-Year Status Report and Use of Results: Because of COVID-19 protocols, the devices will not be used until conditions change. The devices will likely be put into service during Spring 2022 at the latest. Carry forward to 2021-22 Plan to report assessment. 3) 2018-19 Status Report: The laptops were received at the end of the Fall 2018 semester, just prior to the holiday break. They have not been configured by Red Hat; those tasks must be completed before the laptops can be used for exam administration. The laptops required configurations from Red Hat. However, after months negotiating configuration start dates

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		with Red Hat, the company informed Glenn the laptops received were not of the correct specs. This was Dell's error. The correct laptops were requested in late April 2019 and received in April 2019. However, they have not been configured by Dell. Carry forward to the 2019-20 Plan/Budget to report assessment of the objective. 2019-20 Status Report: Submitted for purchase by Purchasing Director. Awaiting receipt. Unable to assess objective due to COVID campus shut-down, stay-at-home orders. Carry forward to the 2020-21 Plan to report assessment. 2020-21 Status Report: Because of COVID-19 protocols, the devices will not be used until conditions change. The devices will likely be put into service during Spring 2022 at the latest. 2020-21 Use of Results / Assessment: Carry forward to the 2021-22 Plan to report assessment.
2020-21	Information Systems Technology – Game Art and Animation, Game and Automation Programming – HoloLens Device Units	2020-21 End-of-Year Status Report: The devices were received about two weeks before the end of the fall semester. However, because of COVID-19 protocols, the devices will not be used until conditions change. The devices will likely be put into service during Spring 2022. Carry forward to 2021-22 Plan to report assessment. 2021-22 Use of Results / Assessment: Because of COVID-19 and transitioning SGD instructors, the technology will not be implemented until the 2022-23 academic year.
2021-22	Information Systems Technology – Cybersecurity – 15 Cyberbit cyber range licenses	Because of the delayed arrival of the licenses associated with the delayed state budget, the technology was not implemented during Spring 2022 as planned. The technology will be used during the 2022-23 academic year. Carry forward to 2022-23 Plan to report assessment.

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What planning objectives (equipment, supplies, software, etc.) do you anticipate needing over the next three years? Justify the need.

Where extant, educational licenses for cloud computing platforms such as AWS, Azure, Google Cloud, etc. Would be useful for students. The licenses would mean the students would not need to acquire their own subscription: this increases student access and satisfaction.

What positions (faculty and/or staff) do you anticipate needing over the next three years? Justify the need.

The number of faculty, as it is now, should be sufficient to teach the program.

Provide narrative for your program facility needs over the next three years. If facilities are adequate, please confirm.

Facilities are adequate.

Provide narrative for academic / student support services needs over the next three years. *(Are services adequate for your program/service?)*

The AICT program, as well as all IST programs, would benefit greatly from Computer Literacy support. Many students enrolled in IST programs lack rudimentary computing skills (Navigating file systems, saving and loading data, keyboarding, etc.) which slows progress in class and causes frustration. A support class and/or tutor in the Academic Skills Center to help raise computer literacy would be a great benefit.

Provide narrative for analysis of the program's / discipline's strengths, weaknesses, and opportunities.

The program's biggest weakness is lack of interest from potential students. The program's name and course material were updated to include "Artificial Intelligence," to create interest and maintain relevancy. With continued advertising at recruitment events, the program will hopefully grow in enrollment. The program's biggest strength is its A.I. focus: not only is the topic interesting to the public, A.I. skills are highly marketable and will be a boon to students.

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Review prepared and submitted by: (*Please list name(s) and titles***)**

Cynthia Jeane Kaye, Emerging Technologies Instructor

Approvals
1. Using DocuSign (electronic signature), the Office of Institutional Effectiveness (IE) will review and approve the Program/Service Review when completed by the responsible program/service personnel.
2. Using DocuSign (electronic signature), appropriate Division Dean, Director, or AVP is asked to read and approve the Review.
3. Using DocuSign (electronic signature), appropriate Vice President/Associate Vice President is asked to read and approve the Review.

IE Acceptance / Date: _____Dorothy Moore_____ 10/27/2022

Dean, Director, or AVP / Date: _____Tracy M. Schmeltzer_____ 10/27/2022

Administrator Approval / Date: _____Dr. Brandon M. Jenkins_____ 1/13/2023

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