

## **Artificial Intelligence (AI) Readiness Skills for the Workforce at Miami Dade College**

Standard 7.2: (a) has a topic identified through its ongoing, comprehensive planning and evaluation process.

In early 2023, Miami Dade College (MDC) launched the selection process and development of a Quality Enhancement Plan (QEP), where the topic of enhancing students' artificial intelligence (AI) readiness skills emerged. In keeping pace with the advancements in technology and the demands of digital transformation in both higher education and the workforce, students' AI readiness skills were identified as a priority area for the Quality Enhancement Plan at the College. MDC defines AI readiness as a student's ability to effectively engage with and adapt to artificial intelligence (AI) technologies.

The QEP goal, to enhance students' AI readiness skills to better prepare them for the workforce, resulted from Miami Dade College's ongoing, comprehensive planning and evaluation processes and aligns with the college's 2021-2026 strategic plan: *Engage! Empower! Elevate!*. As part of the strategic planning process, the college hosted 11 roadshows with 245 individuals and 31 workshops with 100+ individuals and administered surveys that produced over 2500 responses from students, faculty, and staff combined. Based on the data compiled from the strategic planning process and the plan's finalized goals and high-impact strategies, the college's Center for Institutional and Organizational Learning (CIOL) facilitated a QEP-focused design thinking session with the Institutional Effectiveness Committee that resulted in the identification of the initial QEP themes for consideration.

After identifying the QEP themes, the Office of the Executive Vice President and Provost and the Division of Strategy and Institutional Effectiveness – Accreditation Office - administered the QEP Theme Selection Survey to the college community—students, faculty, staff, administrators, and workforce programs advisory board members. College stakeholders were asked to select up to five themes that they believed would have the greatest impact on enhancing student learning and/or student success. Based on the 827 individual responses, the top five emerging themes were (1) Work-based Learning, (2) Affordable Learning Materials, (3) Accelerated Learning Opportunities, (4) Teaching Students to be Better Students, and (5) Digital Literacy and the Future of Learning and Work.

The next phase of the QEP selection process was the facilitation of ten town hall meetings, one at each of the college's eight campuses, one virtual town hall for faculty, staff, and administrators, and one virtual town hall for students. A total of 438 stakeholders participated. In small groups, college stakeholders were asked to collectively identify one-to-two themes that best addressed MDC's institutional and student needs and to discuss why the selected theme(s) was the best option for MDC's QEP topic. The ranking of themes selected by the groups were (1) Work-based learning, (2) Teaching Students to be Better Students, (3) Digital Literacy and the Future of Learning and Work, (4) Accelerated Learning Opportunities, and (5)

Affordable Learning Materials. After identifying the theme(s), students, faculty, staff, and administrators were asked exploratory questions to collect qualitative data and help narrow the QEP themes to a QEP topic. It was during these discussions that the concept of “AI readiness” emerged as a focal point, primarily within two of the three top-ranked QEP themes, *Work-based Learning* and *Digital Literacy and the Future of Learning and Work*. Along with the enthusiastic and thought-provoking town hall conversations about the growing importance of artificial intelligence, the coding and analysis of the qualitative data confirmed that artificial intelligence emerged as a critical area, combining elements of digital literacy and the world of work. Further conversations with faculty, administration, and staff, as well as the QEP Steering Committee, Institutional Effectiveness Committee, and the Academic Resource Team, confirmed the importance and value of artificial intelligence and students’ readiness as the college’s QEP topic.

Standard 7.2: (c) focuses on improving specific student learning outcomes and/or student success.

Prior to determining the specific QEP goal, objectives, and outcomes, the QEP Steering Committee reviewed progress updates on the college's 2021-2026 strategic plan: *Engage! Empower! Elevate!*; conducted an inventory of the college's existing AI programs and initiatives; and reviewed the literature and promising practices. As a result, Miami Dade College's Quality Enhancement Plan (QEP) goal is to *enhance students' artificial intelligence (AI) readiness skills to better prepare them for the workforce*. To achieve the QEP's goal, the college has identified four primary objectives:

1. The incorporation of innovative teaching and learning practices in MDC's Computer Technology and Applications course (CGS1060C).
2. The content examination of MDC's General Education Learning Outcome #8: *Use computer and emerging technologies effectively* and redesign of assessment tasks.
3. The creation of an AI readiness model module as a framework to support AI readiness outcomes in MDC general education gateway courses, in disciplines, and in programs.
4. The design of co-curricular activities and applied learning experiences to enhance students' AI readiness skills.

Success in achieving the QEP goal and objectives will be supported by the following student-centered AI readiness outcomes:

- a. Students will be able to identify and explain fundamental concepts of AI.
- b. Students will develop an awareness of how AI is applied in the learning environment and various industries.
- c. Students will critically analyze and discuss the ethical challenges and responsible use of AI.
- d. Students will apply AI technologies in the learning environment and in the workplace.

For each of the four overarching objectives, the college has established interdisciplinary and interdepartmental working groups comprised of faculty, staff, and administrators representing the eight MDC campuses. Following is a brief description of each working group's purpose:

- The *incorporation of innovative teaching and learning practices in MDC's Computer Technology and Applications course (CGS1060C)* working group will collaborate with discipline and program faculty to adopt innovative teaching practices and learning experiences, as well as developing and aligning assessment methods specifically tailored to assess AI readiness outcomes effectively. The working group will also collaborate with the college's Center for Institutional and Organizational Learning (CIOL) to ensure continuous and current professional development is offered to support the QEP goal.

- The *content examination of MDC's General Education Learning Outcome #8: Use computer and emerging technologies effectively, and redesign of assessment tasks* working group will examine the college's general education outcome that focuses on the effective use of computers and emerging technologies. Drawing on relevant literature, effective practices, and labor market data, they will review the general education learning outcome to incorporate AI readiness skills, along with other emerging technologies and then develop assessments to ensure students are proficient prior to graduation.
- The *creation of an AI readiness model module as a framework to support AI readiness outcomes in MDC general education gateway courses, in disciplines, and in programs* working group will develop a framework for the model module that will encompass key topics, such as the fundamental principles of AI, its applications across various industries, ethical considerations, and practical applications in the learning environment and the workplace. The model module will act as a core framework, allowing faculty from various disciplines or programs to supplement the model module with learning resources tailored to their student-specific needs and AI readiness outcomes. Designed for seamless integration across the college's disciplines and programs, the model module will facilitate a cohesive and interdisciplinary approach to enhance students' AI readiness skills. Furthermore, the working group will engage the college's Center for Institutional and Organizational Learning (CIOL) to ensure that faculty have access to relevant professional development opportunities.
- The *design of co-curricular activities and applied learning experiences to enhance students' AI readiness skills* working group will perform a comprehensive inventory across the college. This inventory aims to identify existing activities and co-curricular learning experiences that currently support or have the potential to support the QEP's goal and AI readiness outcomes. Drawing on the group's findings, relevant literature, and effective practices, they will work with college stakeholders to create and refine co-curricular activities and learning experiences that promote AI readiness outcomes. This will also involve selecting appropriate assessment methods to measure effectiveness. Additionally, the working group will collaborate with the college's Center for Institutional and Organizational Learning (CIOL) to pinpoint and provide necessary professional development opportunities for staff, faculty, and administrators focused on supporting the QEP goal.

With guidance from the College QEP Steering Committee, the working groups will guide the college-wide actions taken to achieve the QEP goal and support the AI readiness outcomes, which will be continuously assessed by direct and indirect measures, such as student surveys; student, faculty, and staff participation; exam questions; and authentic assessments.