



Presentation to the Senate – April 2022

QEP: AI Across the Curriculum Highlights

April 7th, 2022

QEP Taskforce

Co-Chairs: Dr. Kati Migliaccio, Chair ABE & Dr. Jane Southworth, Chair Geography

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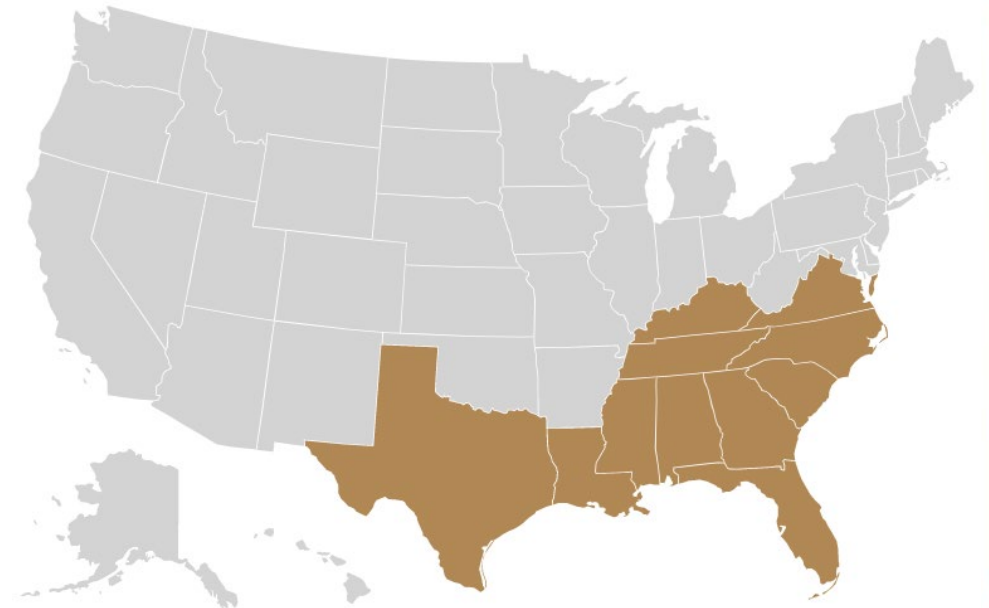
The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)?

The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) is the body for the accreditation of degree-granting higher education institutions in the Southern states.

The SACSCOC is an institutional accreditation commission authorized by the US Department of Education

Accreditation is reaffirmed every ten years, and checked at the five-year point in a Fifth Year Review

WHAT IS SACSCOC?



<https://sacscoc.org/>

WHAT IS SACSCOC?

Why is SACSCOC important?

- Accreditation is required for students to be eligible for **federal financial aid**, around \$400M per year, and **federal grants**, \$679.4M in 2021
- Accreditation is a peer-review process whereby member institutions seek to meet a set of 85 standards in 14 categories established by the commission with the approval of its members
- A measure of institutional quality determined by peers

WHY IS SACSCOC IMPORTANT?



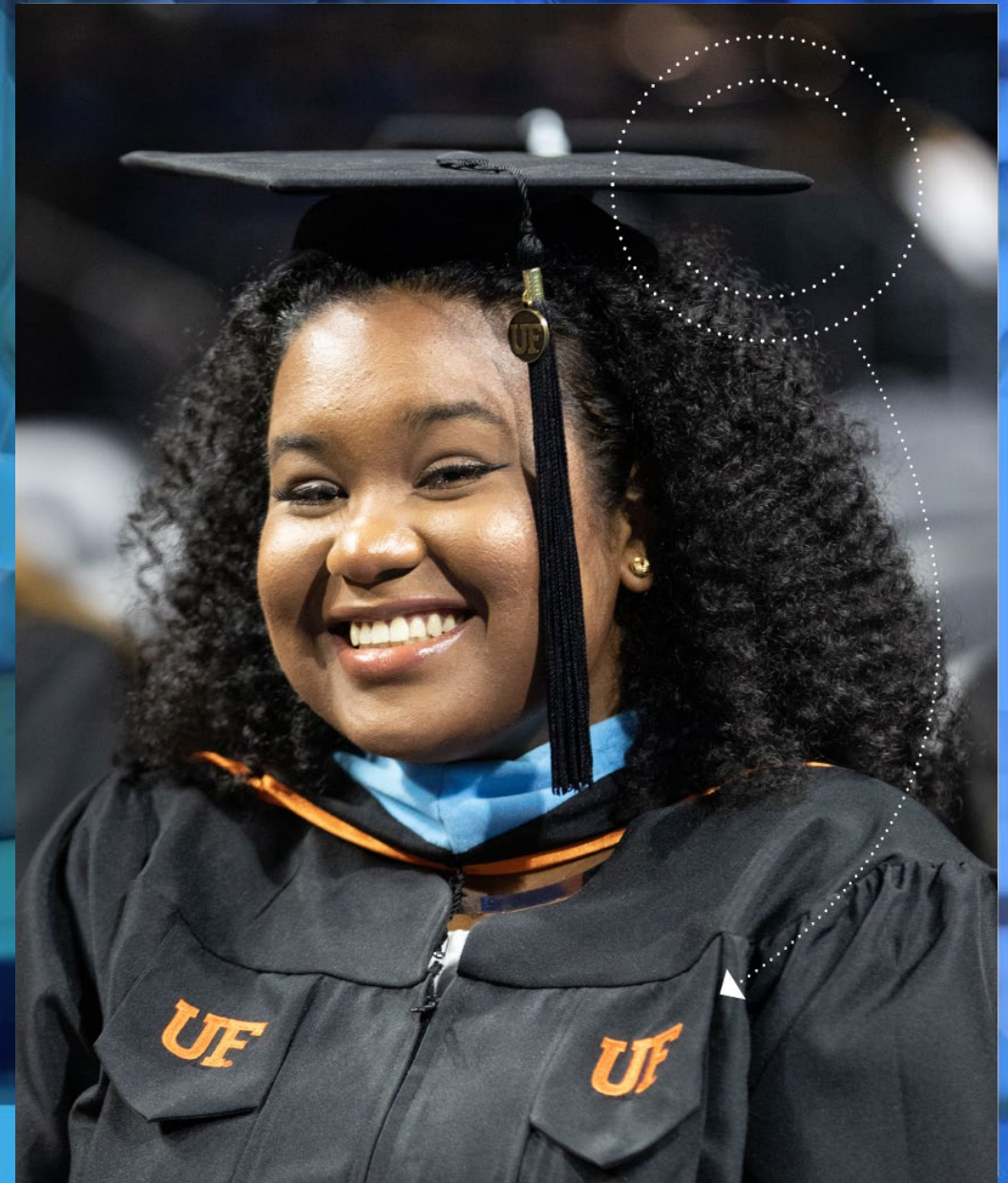
WHY IS SACSCOC IMPORTANT?

Quality Enhancement Plan

The institution has a Quality Enhancement Plan that has

- a topic identified through its ongoing, comprehensive planning and evaluation processes;
- has broad-based support of institutional constituencies;
- focuses on improving specific student learning outcomes and/or student success;
- commits resources to initiate, implement, and complete the QEP; and
- includes a plan to assess achievement.

QUALITY ENHANCEMENT PLAN



QUALITY ENHANCEMENT PLAN

Why AI Across the Curriculum?

The Fourth Industrial Revolution represents a fundamental change in the ways that we live and work:

- merging the physical, digital, and biological worlds and fusing technologies in ways that create both promise and peril.
- The speed, breadth, and depth of this revolution has forced us to rethink how countries should develop, how organizations create value, and how people from all walks of life can benefit from innovation.
- Now, as the world grapples with COVID-19, there is an opportunity to further embrace this revolution in ways that create a more inclusive, human-centred global economy.

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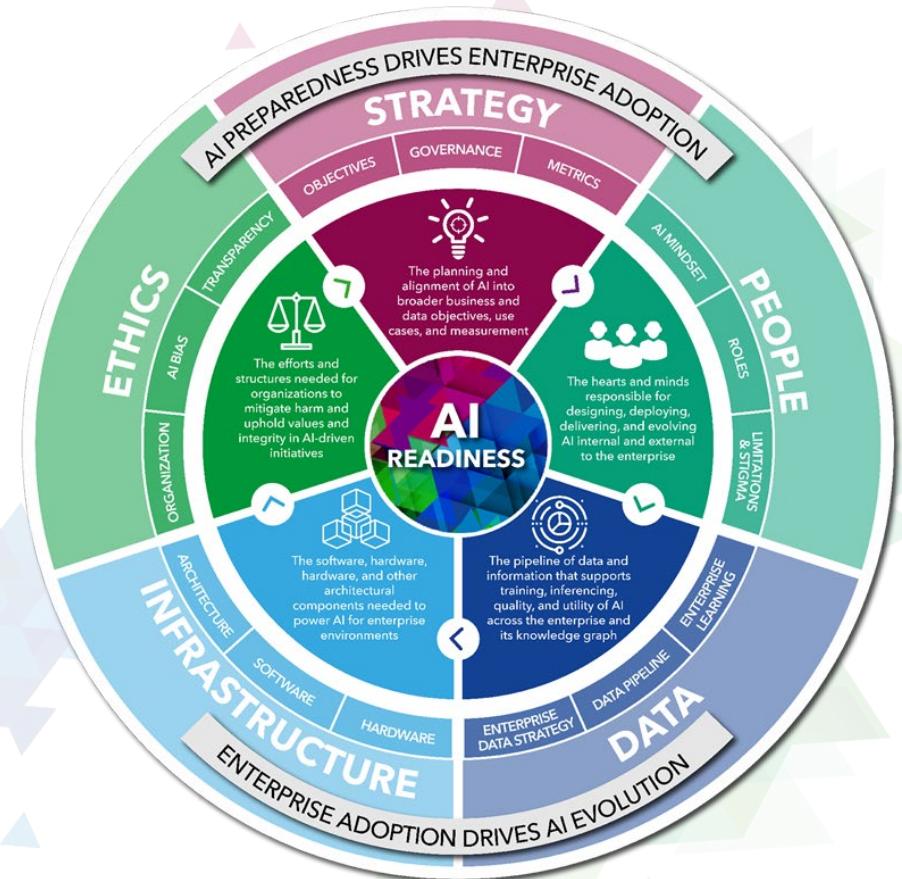
WORKFORCE READINESS

The 2021 National Security Commission on Artificial Intelligence Final Report noted that *“big decisions need to be made now to accelerate AI innovation to benefit the United States and to defend against the malign uses of AI.”*

The report also identifies human talent as the *“most conspicuous AI deficit and the single greatest inhibitor to.... AI-enabled technologies for national security purposes.”*

The report further outlines the need to develop a digitally-literate workforce with AI readiness by 2025 (NSCAI, 2021).

FIGURE 2 THE FIVE AREAS OF AI READINESS



Kaleido Insights, "AI Readiness: Five Areas Businesses Must Prepare for Success in Artificial Intelligence" September, 2018.

21st Century Skills

How today's students can stay competitive in a changing job market

Learning Skills



critical thinking



creativity



collaboration



communication

Literacy Skills



information



media



technology

Life Skills



flexibility



leadership



initiative



productivity



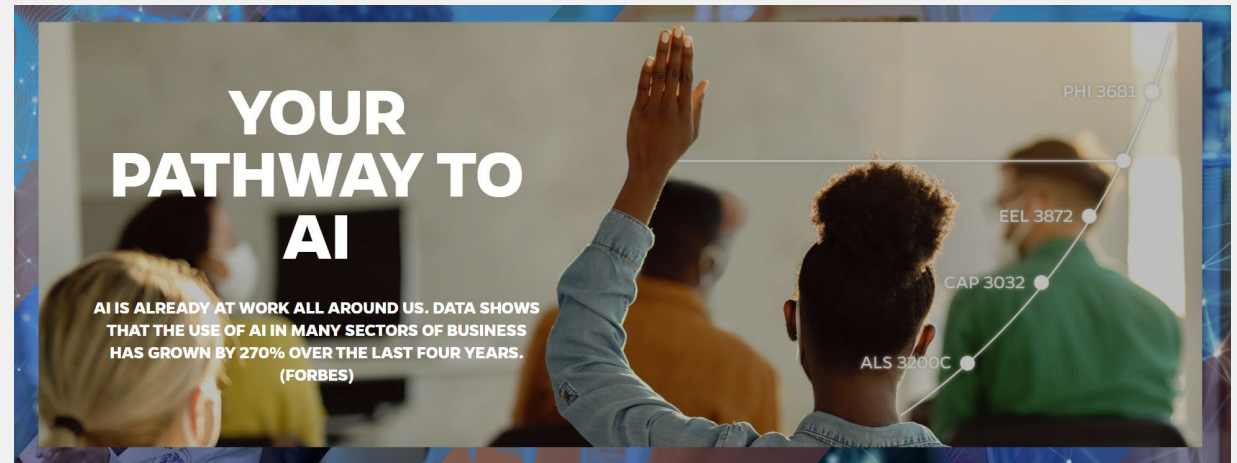
social skills

 Applied
educational systems

CAPITALIZE ON EXISTING UF INVESTMENT IN AI

Existing UF investment [\$70 MILLION]:

- \$25 million from UF alumnus Chris Malachowsky and \$25 million in hardware, software, training and services from NVIDIA, the Silicon Valley-based technology company he cofounded and a world leader in AI and accelerated computing.
- \$20 MILLION FROM UF:
 - 100 faculty hires across campus, all in AI
 - HiPerGator



<https://news.ufl.edu/2020/07/nvidia-partnership/>

QUALITY ENHANCEMENT PLAN (QEP)



Quality Enhancement Plan (QEP)

- provide students with the opportunity to acquire knowledge, skills, and applications in Artificial Intelligence (AI).

AI Across the Curriculum (QEP, 2024-29)

- focused on helping students become *successful digital citizens* and *global collaborators* (Zimmerman, 2018).

YOUR PATHWAY TO AI



“Your Pathway to AI” (University of Florida, 2021a)

- places AI at the center of a major, long-term initiative combining world-class research infrastructure and cutting-edge research with a transformative curriculum.

QEP TASK FORCE



The co-chairs and task force members were charged in November 2021.

This QEP will create campus wide opportunities and experiences for:

- Exploring AI and Data Science
- AI awareness and general knowledge
- Employing ethical and equitable AI
- AI application and use in different disciplines
- AI foundational development and expertise

GOAL 1

- Identify opportunities to engage with AI across campus

GOAL 2

- Design initiatives to support AI integration in all programs
- Develop student learning outcomes for these initiatives
- Develop measures for assessing student learning
- Evaluate the university's progress toward successful implementation

GOAL 3

- Implement these initiatives
- Assess their effectiveness annually
- Analyze assessment results
- Revise initiatives as needed.



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- #1. AI ACADEMIC INITIATIVES CENTER
 - #2. CURRICULUM DEVELOPMENT
 - #3. CERTIFICATE PROGRAMS
 - #4. AI SCHOLARS
 - #5. CAREER CENTER & WORKFORCE DEVELOPMENT

1. CENTER FOR AI AT UF

- The creation of a campus-wide center for AI is seen as a critical first step in the **AI Across the Curriculum Initiative**
- The Provost has recognized this need and has created the **Artificial Intelligence Academic Initiative [AI²] Center** with a Director to lead the effort.
- Center will manage the coordination, development, assessment, and reporting needs of all the AI programs across campus, including those developed in the QEP.

NOTE: future QEP task force work will be coordinated with new AI² Center Director

UF announces Artificial Intelligence Academic Initiative Center



The new Artificial Intelligence Academic Initiative Center will be the campus focal point for academic activity at the university related to AI and data science.

In its latest step to promote artificial intelligence (AI) and data science and integrate AI across the curriculum, the University of Florida announced today it will create an Artificial Intelligence Academic Initiative Center.

The new center, led by Associate Provost for Strategic Initiatives David Reed, will be the campus focal point for academic activity at the university related to AI and data science, including the coordination and development of programs and certificates; the identification of opportunities for faculty and students to engage with AI; the co-organization of seminars and conferences; the development of an AI Scholars



2. CURRICULUM DEVELOPMENT

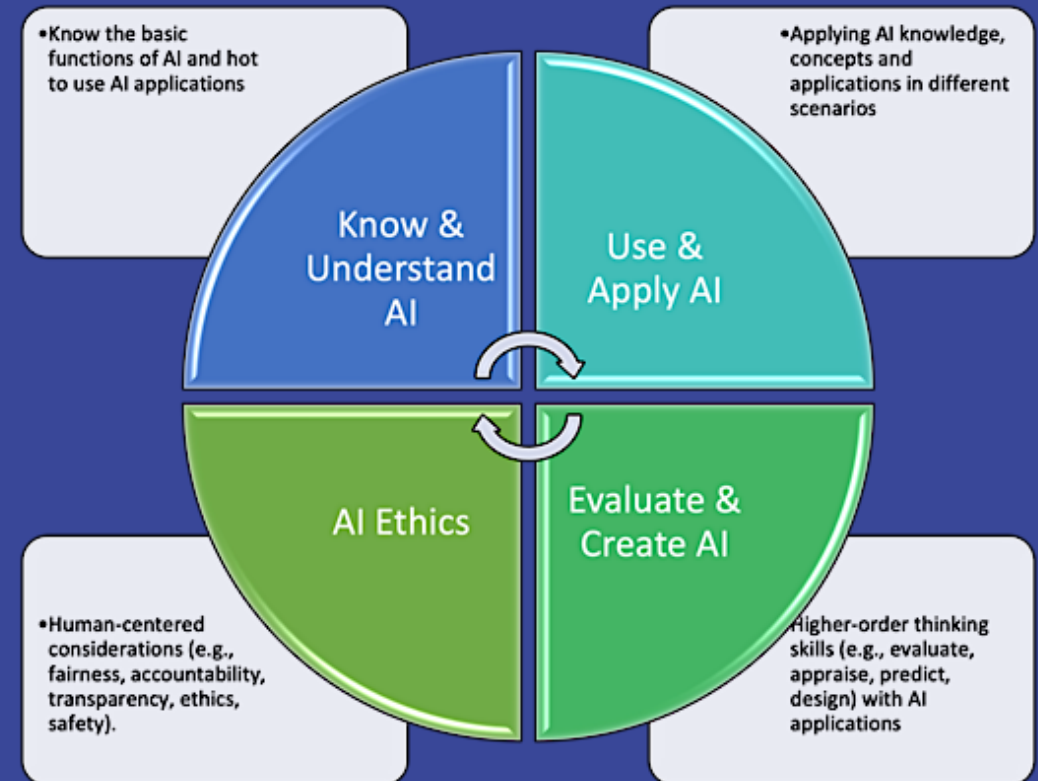
CONCEPTUALIZING AI LITERACY

- To focus the plan on student learning and the conditions that enhance student learning, four AI competencies were selected to develop and measure. These concepts were validated in the literature and matched to the goals of the **AI Across the Curriculum** Initiative.
- Managed via an AI university committee, within the process of existing UCC and GCC review, similar to Gen Ed's [*determine where in process to review*]
- AI CC sub-committee will review, evaluate and tag the type of AI skills within the course, once approved at UCC. *Link to SLO's & Assessment types/rubrics*
- This will indicate level of technology and proficiency expected at the end of the course and will be linked to course SLOs. 4 AI literacy types identified:
 1. Know and understand AI
 2. Use and Apply AI
 3. Evaluate and Create AI
 4. AI Ethics

Ng et al., 2021, *Conceptualizing AI literacy: an exploratory review*, in *Computers and Education: Artificial Intelligence*, 2

SEED GRANTS

- Seed Grants for course development of new courses on AI or existing courses to add an AI component (use model for Internationalizing curriculum) .





3. CERTIFICATE PROGRAMS

A series of differing certificate programs, some of which are already underway, will be developed and advertised/managed through the UF AI Center.

These certificate programs will focus on campus wide certificates, discipline specific initiatives, and application-based certificate programs, and will be for a suite of different audiences:

- **Undergraduate students (on campus and UFO)**
- Graduate Students
- Professional Students
- Faculty
- UF and beyond

QEP focus will be on undergraduate certificate programs

4. AI SCHOLARS PROGRAM

Program modeled on existing UF Scholars program:

- **Undergraduates - Application process to work on AI related research project with a faculty member, same as current program but must have an AI focus. Link to Quest 3 program directly . QEP focuses on this program**
- Graduates/Professional - make a summer fellowship Scholars program. Content/focus on AI research.
- Faculty – Pair an AI expert with a non-AI faculty to develop a new research initiative for submission to national funding agency

AI Scholars Medallion Programs

Undergraduate students compete a series of courses, attend activities/speakers etc. on AI managed by the Center, and is an AI Scholar recipient then they receive an AI Medallion.

AI Scholars will be showcased during conferences and other professional events held by the AI Center.



5. CAREER CENTER AI SPECIALIZATION

UF's AI initiative will have far-reaching impacts for the university, its students and its faculty

Equally important, the AI initiative at the University of Florida will play a crucial role in the transformation of the state's economy into a diversified, technology-driven, high-wage environment

Link to Career Ready Competencies (CRC, State Legislation)

Develop partnerships with industry & companies

Career Center will help link students with internships (Quest 3), job opportunities and career development.

Personalize the Pathway in AI: programs should develop milestones or pathways for students

Development at Career Center of Data Science job expertise and network development for student opportunities

- across campus
- across state
- across industry

AI-based expertise is unique and UF may benefit from companies that specialize in this job market
e.g., 'Interview Query'

State University System of Florida: Task Force on Academic and Workforce Alignment

CAREER CENTER AI SPECIALIZATION

UNIVERSITY OF FLORIDA



UNIVERSITY OF FLORIDA

CAREER CENTER AI SPECIALIZATION

QEP TASK FORCE NEXT STEPS

Taskforce members present QEP Initiatives across campus for feedback. Online Survey for tool in Qualtrics developed for feedback from:

- Undergraduate students
- Graduate students/ Professional students
- Faculty
- Staff
- Leadership



COMMENTS?

QUESTIONS?

