AI, CYBER AND COMPUTING (AICC)

AI, Cyber and Computing (AICC) Courses

AICC 1003. Introduction to Artificial Intelligence. (3-0) 3 Credit Hours.
This course provides a broad introduction to the foundational concepts, tools, and applications of artificial intelligence for students across all disciplines. No prior programming or technical experience is required. Students will explore the key ideas around artificial intelligence, including machine learning, neural networks, and large language models, and examine how these technologies are shaping every field, from the sciences to the arts. The course traces AI from the hardware that powers it to the software and data that drive it, giving students a holistic understanding of how intelligent systems are built and deployed in the real world. Students will also apply these concepts to the ethical, societal, and policy questions AI raises, including bias and fairness, privacy, and security. Course Fee: DL01 $75; LRAI $46.20; STAS $21.60; IUCA $45.

AICC 1100. CAICC Signature Experience - Professional and Leadership Development. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. Participation in semester-long professional or leadership development program that enhances student's academic training, career and leadership readiness, and marketability. May be repeated.

AICC 1101. AI and Hardware. (1-0) 1 Credit Hour.
Prerequisite: MAT 1073. This course introduces students to the relationship between AI algorithms and modern computing hardware. Students will examine how hardware architectures, including CPUs, GPUs, TPUs, and specialized AI accelerators, influence the performance, efficiency, and scalability of AI systems. Topics include parallel computing, memory hierarchies, and data movement, as well as emerging paradigms such as edge AI and neuromorphic computing. Through modern case studies and practical exercises, students learn how to assess and optimize AI systems with respect to hardware constraints, energy efficiency, scalability, and system-level design considerations. Course Fee: LRAI $15.40; DL01 $25; STAS $7.20; IUCA $15.

AICC 1200. CAICC Signature Experience - Internship. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. The opportunity for semester-long work experience in a private business or public agency related to the student's field of study. May be repeated.

AICC 1300. CAICC Signature Experience - Research. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. Supervised research mentored by a faculty member engaged in active research within the student's major field. May be repeated.

AICC 1400. CAICC Signature Experience - Study Abroad. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a course or consent of the Department Chair. An international experiential opportunity that allows students to obtain valuable knowledge relevant to their field of study. May be repeated.

AICC 1500. CAICC Signature Experience - Community Outreach and Service-Learning. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. A community outreach or service-learning opportunity in which students actively engage in the local and greater university community to promote the AI, Cyber, and Computing fields to a broader population. May be repeated.

AICC 3003. Applied Large Language Models. (3-0) 3 Credit Hours.
Prerequisite: ISC 2063, ISC 2083, CS 2113, EE 3223, or CPE 3223, or their equivalents. This course introduces students to the practical design and application of large language models (LLMs) and multimodal AI systems. The focus is on learning how to effectively use, evaluate, and build with modern AI tools. Topics include prompt design for language and vision-language models, structured prompting for tasks such as classification, information extraction, summarization, and multimodal question answering, and the fundamentals of agent-based systems that plan, reason, and use tools. Through hands-on projects, students create real-world AI solutions while developing an understanding of model behavior, reliability, limitations, and responsible use. No prior machine learning experience is required. This course has Differential Tuition. Course Fee: DL01 $75; LRAI $46.20; STAS $21.60; IUCA $45.

AICC 3103. AI and Human Computer Interaction. (3-0) 3 Credit Hours.
This course investigates how intelligent software and hardware systems can be designed to facilitate and support human experiences. Students will learn the foundations of human-computer interaction, including usability, user experiences, user-centered design, and interaction design within the context of AI-driven systems. This course has Differential Tuition. Course Fee: DL01 $75; LRAI $46.20; STAS $21.60; IUCA $45.

AICC 3203. AI and Education. (3-0) 3 Credit Hours.
This course examines the role that AI plays in K-12 and higher education with respect to: 1) how AI has impacted teaching, learning, and policies across the disciplines, 2) how AI has affected curricula and career-readiness development of students, and 3) tools and teaching approaches to introduce AI concepts and integrate AI topics in existing curricula for students. This course has Differential Tuition. Course Fee: DL01 $75; LRAI $46.20; STAS $21.60; IUCA $45.

AICC 4100. CAICC Signature Experience - Professional and Leadership Development. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. Participation in semester-long professional or leadership development program that enhances student's academic training, career and leadership readiness, and marketability. May be repeated.

AICC 4200. CAICC Signature Experience - Internship. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. The opportunity for semester-long work experience in a private business or public agency related to the student's field of study. May be repeated.

AICC 4300. CAICC Signature Experience - Research. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. Supervised research mentored by a faculty member engaged in active research within the student's major field. May be repeated.

AICC 4400. CAICC Signature Experience - Study Abroad. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a course or consent of the Department Chair. An international experiential opportunity that allows students to obtain valuable knowledge relevant to their field of study. May be repeated.

AICC 4500. CAICC Signature Experience - Community Outreach. (0-0) 0 Credit Hours.
Prerequisite: Co-enrollment in a linked course or consent of the Department Chair. A community outreach or service-learning opportunity in which students actively engage in the local and greater university community to promote the AI, Cyber, and Computing fields to a broader population. May be repeated.

AICC 4803. Capstone. (3-0) 3 Credit Hours.
Prerequisite: Senior standing. This course serves as the culminating experience of the Bachelor of Science in Artificial Intelligence, bringing together the technical, mathematical, and ethical foundations students have developed throughout the program. Students will design, develop, and present a substantive AI-related project that addresses a real-world problem in their area of specialization. Projects are grounded in the principles of machine learning, deep learning, and intelligent systems, and reflect the tools and methodologies of the student's chosen track. Students will communicate their work through written reports and oral presentations, demonstrating both technical proficiency and an informed awareness of the ethical, societal, and policy implications of their solutions. This course should be taken in the final semester. This course has Differential Tuition. Course Fee: DL01 $75; LRAI $46.20; STAS $21.60; IUCA $45.

AICC 4811. Senior Projects for Hardware and Systems. (1-0) 1 Credit Hour.
Prerequisite: Senior standing. Students will self-organize into teams, prepare/propose project scope, gather requirements, produce specifications, analyze security and other risk factors, and present their designs. Cannot be repeated for credit. This course has Differential Tuition. Course Fee: LRAE $15.40; DL01 $25.00; STAS $7.20; IUCA $15.