

University of Hawai'i at Manoa, Shidler College of Business, Fall 2026**Professor:** TBD**Office Hours:** TBD**Class Time :** TBD

Day	Time	Room
TBD	TBD	TBD

Overview and Course Objectives

ITM TBD: Applied Artificial Intelligence for Business Implementation is an elective course for the MIS and MSIS programs. Modern enterprises increasingly rely on AI-driven systems to optimize workflows, enhance decision-making, and generate measurable business value. To successfully implement AI solutions, IT and business professionals must understand not only the technical underpinnings of AI technologies but also the data infrastructure, deployment environments, and governance frameworks that support them.

This course provides a strong conceptual and applied foundation in artificial intelligence, suitable for organizations integrating machine learning, neural networks, agentic AI, and other advanced models into operational and strategic processes. Topic areas include AI architectures, data pipelines, feature engineering, vector databases, cloud-based AI platforms, security and bias considerations, and responsible AI governance. The course emphasizes hands-on exercises, case studies, and collaborative projects to simulate real-world AI initiatives within enterprise environments.

Learning objectives:

- Evaluate and communicate how AI initiatives can be aligned with business objectives, operational workflows, and financial outcomes to justify investment and support long-term organizational transformation
- Learn how to explain core artificial intelligence concepts and architectures, including machine learning, neural networks, tokenization, and agentic AI, with an emphasis on practical business applications
- Understand how organizations successfully implement AI technologies by examining real-world case studies, cloud-based AI tools, and documented industry outcomes that demonstrate measurable return on investment

- Identify organizational data requirements for AI initiatives, including data labeling, taxonomy design, data pipelines, feature engineering, vector databases, and the use of synthetic data to support model development
- Learn how to develop, evaluate, and write organizational AI policies and governance guidelines that define acceptable use, risk management practices, data stewardship, and compliance requirement

Textbook and Resources

Given the rapidly evolving nature of artificial intelligence, a traditional textbook would quickly become outdated, as new tools, research, and industry practices emerge on a weekly basis. To ensure course content remains current and relevant, all instructional materials for this class will be provided through the course website (Lamaku)

Course materials will draw from a variety of up-to-date sources, including:

- Peer-reviewed academic research
- Newspaper and reputable media articles
- Industry case studies and business and technical reports

Grading

Item	Percentage
In-class exercises	10%
Applied AI Strategy and Implementation Plan	30%
Five Minute Presentation	10%
Midterm Exam	15%
Final Exam	20%
Participation	10%

Assignments

In class exercises (20%)

In-class exercises will include discussion posts, hands-on activities designed to develop technical skills (often using cloud software platforms), and occasional quizzes. These exercises are

intended to reinforce course concepts, encourage engagement with AI tools, and provide opportunities for applied learning in a collaborative environment. Students are expected to actively participate and contribute to both individual and group-based activities

Applied AI Strategy and Implementation Plan (30%)

Over the course of the semester, students will be assigned to groups of 3–5 and each group will be randomly assigned a simulated business. Groups will collaborate to create a theoretical plan for implementing AI in their assigned organization, with a focus on practical strategy, technical infrastructure, data requirements, responsible AI practices, and potential ROI.

The project will be evaluated based on the following components:

- **Final Written Report (10%):** 10 pages, double-spaced, detailing the AI implementation plan.
- **Final Presentation (10%):** 20-minute group presentation summarizing findings and recommendations.
- **Discussion Contributions & AI Policy (5%):** Students will actively participate in class discussions, submit short artifacts demonstrating application of course content, and draft an AI policy tailored to the regulatory, ethical, and operational context of their assigned business.
- **Peer Reviews (5%):** Students will review group members' contributions at the end of the semester.

This project is designed to integrate technical knowledge, business strategy, and responsible AI practices, providing a hands-on experience in developing realistic AI implementation strategies

Five Minute Presentation (5%)

During the semester, each student will prepare a brief presentation highlighting recent developments in AI technology. Students will select a current news article, business case, or academic paper as the basis for their presentation. The student is expected to:

- Summarize the article and explain why it is significant or interesting in the context of AI applications, trends, or business impact
- Create a short PowerPoint of no more than five slides to support the presentation
- Present to the class in a concise, engaging manner within a five-minute timeframe

This exercise provides an opportunity for students to explore and discuss recent AI technologies, helping them stay up to date in a rapidly evolving field while analyzing developments, communicating key insights, and connecting technical concepts to real-world applications.

Midterm and Final Exams (35% in total)

The midterm and final exams will be taken in person and will cover lecture content presented in class. **Both exams are closed book and closed note; the use of any outside resources, including generative AI tools, is strictly prohibited.** Exams will be handwritten and designed to assess students' understanding of technical concepts, practical applications, and key course material.

Class participation (10%)

All students are expected to attend every class in person. In-person participation is essential, as the course emphasizes developing soft skills such as communication, teamwork, and problem-solving. These skills can only be cultivated through active engagement in discussions, hands-on exercises, and collaborative group work. Students should review assigned materials prior to class and come prepared to contribute meaningfully to the learning experience.

Generative AI use

Unless explicitly stated otherwise, students are welcome to use generative AI tools for all assignments in this course. However, access to these tools comes with the expectation of producing high-quality, thoughtful work. AI can generate content that is verbose or superficial, so submissions must demonstrate critical thinking, clarity, and meaningful engagement with the topic. All submitted work will be reviewed carefully, and students may be asked questions to ensure understanding. **While AI can support your work, submitting low-quality or AI-generated "slop" will not meet course standards.**

ITM TBD: APPLIED ARTIFICIAL INTELLIGENCE FOR BUSINESS IMPLEMENTATION

#	Date	Topics Covered	Reading and Assignments
1		Course introduction <ul style="list-style-type: none"> Overview of course structure, grading, and assignments What is AI? A brief history of AI tools and their evolution 	
2		Core AI concepts <ul style="list-style-type: none"> Machine learning, neural networks, tokenization Generative AI 101 Group formation 	Groups created
3		Current successes in AI <ul style="list-style-type: none"> Case studies of successful AI implementation The AI learning gap and MIT study discussion 	Reading (Due before class): MIT state of AI in business
4		Data fundamentals <ul style="list-style-type: none"> AI and enterprise data management Local business AI implementation review 	Reading (Due before class): McKinsey – "The state of AI in 2025: Agents, innovation, and transformation"
5		5-Minute Presentations	
6		Security and biases in AI <ul style="list-style-type: none"> Data governance and responsible AI (RAI) frameworks Common AI risks: spearphishing, malware, bias Case examples of bias and ethical concerns 	Reading (Due before class): (TBD – recent case study)
7		<ul style="list-style-type: none"> Policy feedback and guidance Midterm review 	Due: Applied AI Strategy and Implementation Plan (Policy framework)
8		Midterm Exam	
9		Security and biases in AI (Part 2) <ul style="list-style-type: none"> Advanced threats: red teaming, model jailbreaking, data poisoning AI in cybersecurity: deepfake detection, AI-driven intrusion detection Image generation exercise 	Bring to class: Professional photo of yourself (.jpg or .png)
10		AI soft skills for successful implementation <ul style="list-style-type: none"> Small wins and workflow integration strategies (MIT study insights) Group discussion and strategy refinement for final project 	Reading (Due before class): "Organizational Readiness for AI Adoption" (Journal of Business Research, 2022)
11		AI infrastructure and cloud deployment <ul style="list-style-type: none"> Overview of GPUs, TPUs, and distributed training APIs and AI-as-a-service platforms (AWS, Azure, GCP, OpenAI) Salesforce and enterprise AI platforms 	Due: Final report draft
12		Lecture: Responsible AI use <ul style="list-style-type: none"> Final report feedback Final exam review 	
13		Final Project Presentations (Groups 1-3)	Due before class: Final reports
14		Final Project Presentations (Groups 4-6)	
15		Final Exam	

Academic Integrity

We are **ALL responsible** for creating the world we live in today and in the future. The University expects students to:

- Maintain standards of personal integrity that align with the educational goals of this institution.
- Respect the rights, privileges, and property of others.
- Observe national, state, and local laws as well as University regulations.

The following are examples of behaviors that conflict with the community standards valued and expected of students. Engaging in or attempting to engage in any of these behaviors subjects a student to the disciplinary process and sanctions on each campus.

Acts of dishonesty include, but are not limited to, the following:

Cheating:

Includes, but is not limited to, giving or receiving unauthorized assistance during an examination; obtaining unauthorized information about an examination before it is given; submitting another's work as one's own; using prohibited sources of information during an examination; fabricating or falsifying data in experiments and other research; altering the record of any grade; altering answers after an examination has been submitted; falsifying any official University record; or misrepresenting facts in order to obtain exemptions from course requirements.

Plagiarism:

Includes, but is not limited to, submitting, in fulfillment of an academic requirement, any work that has been copied in whole or in part from another individual's work without attributing that borrowed portion to the individual; neglecting to identify as a quotation another's idea and particular phrasing that was not assimilated into the student's language and style; paraphrasing a passage so that the reader is misled as to the source; submitting the same written, oral, or artistic material in more than one course without obtaining authorization from the instructors involved; or "drylabbing," which includes obtaining and using experimental data and laboratory write-ups from other sections of a course or from previous terms.

The UH Student Code of Conduct is available at: [Student Conduct Code | Division of Student Success - University of Hawaii at Manoa](#)

Kokua & Accommodations for Students with Special Needs

Any student in this class who has a documented visual or physical impairment, learning disability, or any other disability covered by the University's KOKUA program should contact me during the first week of class. I will be glad to discuss and arrange any instructional accommodations that may be necessary.

Withdrawal Policy

The last day to drop the course without a "W" is **TBD**

Academic Integrity

We are ALL responsible for creating the world we live in today and in the future. The University conduct code states that cheating, plagiarism, or other forms of academic dishonesty are in violation of the Student Conduct Code. Dishonesty and cheating in this course will be prosecuted vigorously and can result in penalties of an F in the course. All cases will be referred to the Office of Judicial Affairs for further investigation. You are encouraged to report any cheating incident to me and the appropriate officials in the Shidler College of Business.