

# INFORMATION TECHNOLOGY AND OPERATIONS MANAGEMENT

## Artificial Intelligence Courses

### Undergraduate Courses

#### **ISM 4421 – Artificial Intelligence and Digital Transformation for Business** *3 credits*

Students gain a business perspective of artificial intelligence (AI) as a driver of innovation and digital transformation in a wide array of industries. They learn how to plan, manage and maintain AI projects and how to address the digital transformation challenges and implications for the organization and society.

**ISM 4425 – Business Product Development with AI** *Approved by FS on Oct 7th, 2024* This course introduces a practical approach to building products that leverage AI for business success. By designing and developing AI-native applications using low-code/no-code tools, the participants will acquire the necessary knowledge to examine business opportunities, gain practical skills in managing the AI product development lifecycle, and navigate complexities associated with AI products in various verticals.

### Graduate Courses

**ISM 6427C – Business Innovation with Artificial Intelligence** *3 credits* Students gain a business perspective of artificial intelligence (AI) and other emerging technologies as drivers of innovation in businesses. They learn how AI is used in practice across organizations and industries, how to plan, manage and maintain AI projects, and how to address the AI challenges and implications for the organization and society.

**MAN 7926 – Business Impact of Artificial Intelligence and Emerging Technologies** *3 credits* *Prerequisite: Admission to an FAU Ph.D. program or permission of instructor* This course provides students with an exposure to the major issues of business impact of artificial intelligence and other emerging technologies, including the Internet of Things and Service 4.0, and prepares students for academic research in this area.

**ISM 6426 – Managing Artificial Intelligence Product Development** This course introduces students to the practical methodologies of managing the development cycle of AI-based applications and services to enhance business success. By managing, designing and developing AI-native as well as adapting commercial applications that support low-code/no-code tools, the participants will acquire the necessary knowledge to explore opportunities for automation using AI and to acquire applied knowledge of managing the AI product development and deployment.

### **AI Integration in Various Classes**

**DrLeeGPT:** Developed an AI-powered syllabus assistant, allowing students to query syllabus using a GPT model for syllabus-related questions.

## **AI Topics and Use in Other ITOM Classes**

### **Graduate Classes**

- **ISM 6508** – Using AI in creating websites for e-commerce planning.
- **ISM 6328** – AI and intrusion detection system included in lectures and student term projects in Cybersecurity classes.
- **ISM 6328** – AI Deepfake as a topic for student term projects in Cybersecurity classes.
- **ISM 6427C** – Students build autograders and mental health AI services.
- **ISM 6427C** – Use AI to assist with module descriptions, assignment clarity, feedback, and student emails.
- **ISM 6427C** – Pilot automatic grading and question bank generation using FAU IT tools (LLM initiative).
- **ISM 6427C** – Introduce tools (LLMs, AutoAI, etc.) and guide students on usage.
- **ISM 6217 & ISM 6136** – Use AI-generative tools (OpenAI, Copilot, ChatGPT) for information retrieval in assignments/projects.
- **ISM 6217 & ISM 6136** – Create PowerPoint presentations using Canva in ChatGPT.
- **ISM 6217 & ISM 6136** – Use AI features in Power BI and Tableau for enhanced analysis and insights.
- **ISM 6217 & ISM 6136** – Utilize Google NotebookLM to simplify complex concepts and illustrate real-world applications.
- **ISM 6136** – Discuss and demonstrate NLP for text analysis.
- **ISM 6026** – One full lecture dedicated to AI and generative AI with hands-on marketing material generation.

### **Undergraduate Classes**

- **ISM 2000** – Lecture covering:
  - Generative AI vs Conversational AI

- Machine Learning, Deep Learning
  - AI training, Chatbots
  - Prompt Engineering
  - NLP and tools like ChatGPT, Copilot, Gemini, Anthropic
- **ISM 3116** – Two modules on AI Concepts, Drivers, Major Technologies, and Business Applications including GenAI.
- **ISM 4133** – Students use Generative AI to create sample datasets tailored to career goals, visualized using Tableau or Power BI.
- **ISM 3011** –
  - AI-Assisted Problem Solving using NotebookLM
  - AI-Driven Learning Strategies using ChatGPT for explanations
  - One full lecture dedicated to AI and generative AI