

LEVEL I CERTIFICATE, PRACTICAL AI AND INTELLIGENT AUTOMATION

Additional information: Reference the SHSU Polytechnic College (<https://sam.edu/>) page for additional information.

Program Description

Jumpstart your career with in-demand AI and automation skills. This program is crafted for those looking to quickly gain the practical knowledge needed for high-impact roles such as AI Technician or Automation Specialist.

As AI and automation become essential across industries, this certificate equips you with versatile, future-focused skills that open doors in the fast-evolving tech landscape. Stand out in today’s job market as a forward-thinking professional ready to shape the future.

This Undergraduate Certificate is eligible to receive Title IV funding – Direct Loans, Pell Grant, SEOG Grant, and Federal Work Study. To be considered for aid, students need to submit a Free Application for Federal Student Aid (FAFSA).

Statewide Industry Highlights

- Current Workforce: 88,072 employed
 - Average Salary: \$56,400
 - Open Positions: 9,148
- Data provided by Lightcast, 2024.

Code	Title	Hours
Level I Certificate, Practical AI and Intelligent Automation		
ITAI 1370	AI Fundamentals & Platforms	3
ITAI 1371	AI Ethics and Society	3
ITAI 1372	AI in Industry	3
ITAI 1373	Data Analysis & Visualization	3
ITAI 1374	Automating Workflows	3
ITAI 1375	AI-Powered Data Insights	3
ITAI 2370	AI for Customer Service	3
ITAI 2371	Natural Language Processing	3
ITAI 2372	Image and Text Analysis	3
ITAI 2373	Predictive Analytics	3
ITAI 2374	Automating Customer Insights	3
ITAI 2375	Capstone Project	3
Total Hours		36

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First Year

Fall	Hours	Spring	Hours
Term 1		Term 3	
ITAI 1370		3 ITAI 2370	3
ITAI 1371		3 ITAI 2371	3
ITAI 1372		3 ITAI 2372	3
Term 2		Term 4	
ITAI 1373		3 ITAI 2373	3
ITAI 1374		3 ITAI 2374	3
ITAI 1375		3 ITAI 2375	3
		18	18

Total Hours: 36

Note: All courses are scheduled for 7.5 weeks in length.

The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The Level I Certificate Program in Practical AI and Intelligent Automation is designed to provide graduates with the following marketable skills:

- Machine Learning
- Artificial Intelligence
- Computer Science
- Software Development
- Data Analysis
- Microsoft Azure
- Automation
- Business Intelligence

Artificial Intelligence

ITAI 1370. AI Fundamentals & Platforms. 3 Hours.

Students acquire a foundational understanding of AI, its applications, and how to access and use AI platforms without requiring advanced technical knowledge.

ITAI 1371. AI Ethics and Society. 3 Hours.

Students are introduced to the ethical implications of AI technologies, including issues of bias, privacy, and social impacts of AI deployment.

ITAI 1372. AI in Industry. 3 Hours.

Students explore how AI is being applied across different industries and identify potential opportunities for AI integration.

ITAI 1373. Data Analysis & Visualization. 3 Hours.

Students learn the basics of data analysis and visualization, focusing on turning raw data into actionable insights accessible tools.

ITAI 1374. Automating Workflows. 3 Hours.

Students are introduced to the fundamentals of Robotic Process Automation (RPA) and learn how to automate repetitive tasks using UiPath.

ITAI 1375. AI-Powered Data Insights. 3 Hours.

Students generate AI-driven insights from data using Microsoft Power Bi.

ITAI 2370. AI for Customer Service. 3 Hours.

ITAI 2371. Natural Language Processing. 3 Hours.

Students explore Natural Language Processing (NLP) and use IBM Watson to analyze and process text data.

ITAI 2372. Image and Text Analysis. 3 Hours.

Students employ Google Cloud AI's tools for analyzing images and text, enabling students to leverage advanced AI capabilities for media analysis.

ITAI 2373. Predictive Analytics. 3 Hours.

Students implement predictive analytics models using Microsoft Azure AI, enabling students to forecast outcomes based on data.

ITAI 2374. Automating Customer Insights. 3 Hours.

Students use IBM Watson Discovery to automate the extraction of insights from customer data, enhancing data-driven decision-making processes.

ITAI 2375. Capstone Project. 3 Hours.

Students apply the knowledge and skills acquired throughout the course to solve a real-world problem using AI technologies.