uCertify

Course Outline

Certified Artificial Intelligence Practitioner (CAIP)

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1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary

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4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

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   Chapter 3: Collecting and Refining the Dataset

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   Chapter 7: Building Classification Models

   Chapter 8: Building Clustering Models

   Chapter 9: Building Decision Trees and Random Forests

   Chapter 10: Building Support-Vector Machines

   Chapter 11: Building Artificial Neural Networks

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Here's what you get

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1. Course Objective

Gain hands-on experience to pass the CertNexus AIP-110 exam with the Certified Artificial Intelligence Practitioner (CAIP) course and lab. The lab is cloud-based, device-enabled, and can easily be integrated with an LMS. Interactive chapters comprehensively cover the AIP-110 exam objectives and provide understanding on the topics such as problem formulation, applied artificial intelligence, and machine learning in business; data collection, comprehension, cleaning, and engineering; analyze a data set to gain insights, algorithm selection, and model training, model handoff, ethics and oversight; and more.

2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

3. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

4. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.

5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.

6. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

7. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

8. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

9. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
    1. Best Postsecondary Learning Solution

- **2015**
    1. Best Education Solution

2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**
    1. Best Virtual Learning Solution
    2. Best Education Cloud-based Solution
    3. Best College and Career Readiness Solution
    4. Best Corporate / Workforce Learning Solution
    5. Best Postsecondary Learning Content Solution
    6. Best Postsecondary LMS or Learning Platform
    7. Best Learning Relationship Management Solution

- **2017**
    1. Best Overall Education Solution
    2. Best Student Assessment Solution
    3. Best Corporate/Workforce Learning Solution
    4. Best Higher Education LMS or Learning Platform

- **2018**
    1. Best Higher Education LMS or Learning Platform
    2. Best Instructional Solution in Other Curriculum Areas
    3. Best Learning Relationship Management Solution

- **2019**
    1. Best Virtual Learning Solution
    2. Best Content Authoring Development or Curation Solution
    3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

10. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Introduction

- Course Description
- How to use this Course
- Course-Specific Technical Requirements

Chapter 2: Solving Business Problems Using AI and ML

- Topic A: Identify AI and ML Solutions for Business Problems
- Follow a Machine Learning Workflow
- Topic C: Formulate a Machine Learning Problem

Chapter 6: Building Linear Regression Models

- Topic A: Build Regression Models Using Linear Algebra
- Topic B: Build Regularized Regression Models Using Linear Algebra
- Topic C: Build Iterative Linear Regression Models
- Summary

Chapter 7: Building Classification Models

- Topic A: Train Binary Classification Models
- Topic B: Train Multi-Class Classification Models
- Topic C: Evaluate Classification Models
- Topic D: Tune Classification Models
- Summary

Chapter 8: Building Clustering Models

- Topic A: Build k-Means Clustering Models
- Topic B: Build Hierarchical Clustering Models
- Summary

Chapter 9: Building Decision Trees and Random Forests

- Topic A: Build Decision Tree Models
- Topic B: Build Random Forest Models
- Summary

Chapter 10: Building Support-Vector Machines

- Topic A: Build SVM Models for Classification
- Topic B: Build SVM Models for Regression
- Summary

Chapter 11: Building Artificial Neural Networks

- Topic A: Build Multi-Layer Perceptrons (MLP)
- Topic B: Build Convolutional Neural Networks (CNN)
- Topic C: Build Recurrent Neural Networks
- Summary

Chapter 12: Promoting Data Privacy and Ethical Practices

- Topic A: Protect Data Privacy
- Topic B: Promote Ethical Practices

- Topic C: Establish Data Privacy and Ethics Policies
- Summary

Chapter 13: Appendix A

- Mapping Certified Artificial Intelligence (AI) P...oner (Exam AIP-110) Objectives to Course Content

11. Practice Test

Here's what you get

50	2	50
PRE-ASSESSMENTS QUESTIONS	FULL LENGTH TESTS	POST-ASSESSMENTS QUESTIONS

Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

12. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

Lab Tasks

Collecting and Refining the Dataset

- Examining the Structure of a Machine Learning Dataset
- Loading the Dataset
- Exploring the General Structure of the Dataset
- Analyzing a Dataset Using Statistical Measures
- Module 1 Lab
- Splitting the Training and Testing Datasets and Labels

Setting Up and Training a Model

- Setting Up a Machine Learning Model
- Dealing with Outliers

- Scaling and Normalizing Features
- Module 2 Lab

Building Linear Regression Models

- Building a Regression Model using Linear Algebra
- Building a Linear Regression Model to Predict Diabetes Progression
- Building a Regularized Linear Regression Model
- Building an Iterative Linear Regression Model

Building Classification Models

- Creating a Logistic Regression Model to Predict Breast Cancer Recurrence
- Training Binary Classification Models
- Training a Multi-Class Classification Model
- Evaluating a Classification Model
- Tuning a Classification Model

Building Clustering Models

- Building a k-Means Clustering Model
- Building a Clustering Model for Customer Segmentation
- Building a Hierarchical Clustering Model

Building Decision Trees and Random Forests

- Building a Decision Tree Model
- Building a Random Forest Model

Building Support-Vector Machines

- Building an SVM Model for Classification
- Building an SVM Model for Regression

Building Artificial Neural Networks

- Building an MLP

Here's what you get

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LIVE LABS

13. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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