Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

Arrow Enterprise Computing Solutions Ltd, Part 1st Floor, Suite 1D/1, Central House, Otley Road, Harrogate, HG3 1UG

Email: education.ecs.baltic@arrow.com
Phone: 0870 251 1000

AI+ Vibe Coder™

CODE:	LENGTH:	PRICE:
AIC_AP-111	4 Hours	€100.00

Description

Supercharge coding with AI+ Vibe Coder™ for smarter, faster creation

- **Beginner-Friendly Approach:** Designed for aspiring creators eager to explore AI-assisted coding with ease and confidence
- **Interactive Learning Journey:** Blends core coding concepts, intuitive AI tools, and hands-on practice to build real problem-solving skills
- **Project-Driven Growth:** Provides guided exercises and practical projects to help you build, refine, and showcase your AI-powered coding talents

Why This Certification Matters

- **Empowers Intelligent Development:** Learn to integrate AI into coding workflows to build smarter, more adaptive applications.
- **Boosts Productivity:** Automate repetitive programming tasks and streamline software development using AI-driven tools and assistants.
- **Bridges Creativity and Code:** Combine technical expertise with creative problem-solving to design innovative, human-centered digital experiences.
- **Future-Proofs Your Career:** Gain in-demand AI coding skills that are reshaping industries and redefining the developer's role.
- **Prepares for Real-World Impact:** Apply AI in real coding environments to develop scalable, intelligent, and efficient solutions for diverse domains.

At a Glance: Course + Exam Overview

- Included: Self-paced course + Official exam + Digital badge
- Delivery: Hands-on, projects, case studies
- Outcome: Industry-recognized credential + hands-on experience

The following tools will be explored in this course:

- Python
- TensorFlow
- PyTorch
- GitHub Copilot
- OpenAI Codex
- Hugging Face Hub
- LangChain
- FastAPI
- VS Code
- Jupyter Notebooks
- Pandas
- NumPy
- Scikit-learn
- Docker
- Streamlit
- API Integration Tools

- Prompt Engineering Frameworks
- Automation SDKs
- Version Control Systems (Git)

What's Included (One-Year Subscription + All Updates):

- High-Quality Videos, E-book (PDF & Audio), and Podcasts
- AI Mentor for Personalized Guidance
- Quizzes, Assessments, and Course Resources
- Online Proctored Exam with One Free Retake
- Comprehensive Exam Study Guide

Objectives

- AI-Powered Programming
- Machine Learning Integration
- Generative Code Development
- Natural Language Coding
- Automated Debugging and Testing
- Data-Driven Application Design
- Prompt Engineering
- Algorithm Optimization
- AI Workflow Automation
- Ethical and Responsible AI Development

Audience

- Aspiring Programmers: Beginners eager to start their coding journey with the power of AI-driven learning and automation.
- Tech Enthusiasts: Individuals fascinated by how AI transforms coding, app development, and digital innovation.
- Students and Graduates: Learners seeking a practical foundation in programming enhanced by real-world AI applications.
- Career Switchers: Professionals from non-technical backgrounds looking to enter the tech industry through AI-assisted coding.
- Entrepreneurs and Creators: Innovators aiming to build smarter products, automate processes, and bring AI-powered ideas to life.

Prerequisites

- Basic Computer Skills: Comfortable with operating systems and files.
- Mathematics Fundamentals: Understanding of algebra and basic statistics.
- Logical Thinking: Ability to approach problems step by step.
- Programming Curiosity: Interest in learning coding from scratch.
- English Proficiency: Ability to follow technical instructions clearly.

Programme

What You'll Learn

Module 1: Introduction to Vibe Coding & AI Tools

1.1 What is Vibe Coding?
1.2 Evolution of AI in Software Development – Low Code vs No Code vs Vibe Coding
1.3 Overview of Common AI Coding Tools by Functionality
1.4 SDLC for a Vibe Coding Product
1.5 Hands-on Lab: Familiarizing Learners with Multiple AI Coding Tools
1.6 Case Studies

Module 2: Prompting for Code – Basics & Best Practices

2.1 Anatomy of a Good Prompt
2.2 Prompt Types – Instructive, Descriptive, Iterative
2.3 Prompting Patterns – Zero-Shot, Few-Shot, Chain-of-Thought
2.4 Hands-on Lab: Practice Zero-Shot, Few-Shot, and Chain-of-Thought Prompting
2.5 Use-Case 1: Creating a Python Calculator
2.6 Use-Case 2: Optimizing AI-generated Code Using Different Prompt Types

Module 3: Debugging & Testing via AI

3.1 Reviewing and Refining AI-generated Code
3.2 Prompting for Bug Fixes and Test Coverage
3.3 Using AI-generated Unit Testing
3.4 Detecting Hallucinations and Unsafe Code
3.5 Hands-on Lab: AI-Assisted Debugging and Unit Testing
3.6 Activity Section

Module 4: Building a Simple Full-Stack App with Prompts

4.1 Planning the App: Frontend + Backend
4.2 Using IDEs and Code Generators to Scaffold Code
4.3 Connecting Components Using Natural Language
4.4 Deploying and Testing the MVP in Simulated Environment
4.5 Hands-on Lab: Building and Connecting the Frontend and Backend for Contact Form Submission
4.6 Hands-on Lab: Building a Standalone Desktop Calculator Application Using Tkinter
4.7 Hands-on Assignment 1: Task Management System – Full-Stack Development Using Prompts

Module 5: Code Ethics, Security, and AI Limits

5.1 AI Limitations and Biases
5.2 Prompt Injection and Mitigation Strategies
5.3 Data Privacy and Secure Coding
5.4 Responsible Use of AI in Production
5.5 Hands-on Lab: Build Awareness of AI Limitations and Responsible Practices

Module 6: Capstone Project – Prompt-Driven App

6.1 Apply All Learned Skills in a Real-World Project
6.2 Collaborate and Iterate Using AI Tools
6.3 Demonstrate End-to-End Development Using Prompts
6.4 Capstone Project Use Case: AI-Powered To-Do List Application
6.5 Capstone Project Use Case: AI-Powered Note-Taking Desktop App
6.6 Assignments

Test and Certification

Exam Details

- Duration: 90 minutes
- Passing Score: 70% (35/50)
- Format: 50 multiple-choice/multiple-response questions
- Delivery Method: Online via proctored exam platform (flexible scheduling)

Exam Blueprint:

- Introduction to Vibe Coding & AI Tools – 15%
- Prompting for Code – Basics & Best Practices – 15%
- Debugging & Testing via AI – 15%
- Building a Simple Full-Stack App with Prompts – 20%
- Code Ethics, Security, and AI Limits – 20%
- Capstone Project – Prompt-Driven App – 15%

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
01 Jan 0001			English	Self Paced Training		€100.00

Additional Information

This training is also available as onsite training. Please contact us to find out more.