

API Development with Python

Applied Technology Academy

Learn how to design and build APIs that are easy to consume, test, and maintain. The course focuses on clear contracts, validation, and practical service behavior. AI-assisted endpoint design, documentation, and test generation are included where appropriate.

LEVEL	DURATION	COURSE CODE	DELIVERY
Intermediate	3–5 days	MA-55-2	Instructor-led

Course Overview

- Practical API development for services and application integration.
- Clear contracts, validation, and service behavior across languages and platforms.

Course Outline

- **Unit 1: Foundations:**
 - core concepts and terminology
- **Unit 2: Application:**
 - guided practice and labs
- **Unit 3: Handoff:**
 - troubleshooting, review, and next steps

Prerequisites

Participants should have:

- working familiarity with the target language, framework, or platform
- experience reading and modifying existing code is helpful
- basic troubleshooting skills
- access to the required tools or accounts before class

Who Should Attend

- Developers building services and backend APIs.
- Teams that need consistent service patterns.
- Learners who want practical contract and integration skills.

What You'll Learn

By the end of this course, participants will be able to:

- design and implement practical APIs
- apply validation, versioning, and error handling consistently
- document services clearly for internal and external consumers
- test and troubleshoot service behavior effectively
- adapt the same API patterns across languages and teams

What the Course Covers

In Scope:

- REST API design
- validation and versioning
- error handling and documentation
- service testing and troubleshooting

Not Covered:

- UI design beyond API consumer needs
- full product architecture consulting
- infrastructure administration

Hands-On Work

Representative Labs:

- build a REST endpoint
- add validation and error handling
- document the API
- write tests against the contract

Practice and Discussion:

- Guided practice with checkpoints
- Scenario discussion using realistic examples
- Review of trade-offs and next steps

Environment and Tools

- Language runtime and editor
- API testing tool
- Sample backend project

- Optional container or cloud target

Customization Options

- role-based track variations
- industry or domain-specific examples
- mixed-experience pacing adjustments
- accelerated or extended delivery formats

Next Steps

- cloud deployment follow-on
- security hardening path
- full-stack web specialization
- team-specific service architecture workshop

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.