KAIZENOVA TECHNOLOGIES LLC d/b/a TEK2KAREER

Module Catalog

Module 2 — Automation with Python (96 Hours)

This module is an instructional component of the **Software Quality Assurance & Automation Specialist Certificate** program.
It is **not** a stand-alone licensed program.
A state-licensed certificate is awarded **only after successful completion of both Module 1 and Module 2**.

MODULE OVERVIEW

Module 2 builds on the foundations developed in Module 1 and transitions students into automated testing using Python, Selenium, API scripting, version control, and CI/CD pipelines.

Students will learn:

- Python programming for testing

- Object-oriented scripting

- Automation frameworks (PyTest/Selenium)

- API test automation

- CI/CD workflows with GitHub Actions/Jenkins

- Automation planning, execution, and reporting

This module concludes with an **Automation Framework Capstone Project**, where students build a working automation suite for a sample application—including reusable page objects, automated regression suites, test reports, and GitHub integration.

MODULE OBJECTIVES

At the end of this 96-hour module, students will be able to:

Python for Test Automation

✓ Write scripts using Python fundamentals
✓ Use OOP to design reusable automation components
✓ Work with files, JSON, XML, CSV, and APIs

Automation Framework Development

✓ Create automated test scripts using Selenium WebDriver
✓ Build and run tests using PyTest
✓ Capture logs, screenshots, and test reports

API Automation

✓ Understand REST principles
✓ Automate API tests using Python requests library
✓ Validate JSON responses and status codes

CI/CD & Version Control

✓ Use Git and GitHub for managing automation code
✓ Configure GitHub Actions or Jenkins to run automated pipelines
✓ Interpret build failures and debug automation

Automation Project Execution

✓ Structure page objects and test suites
✓ Use data-driven and keyword-driven automation
✓ Create automated regression runs
✓ Integrate automation reports with testing dashboards

DETAILED COURSE OUTLINE (96 HOURS)

Week	Topic	Skills / Tools Covered
1–2	Python Review & OOP Fundamentals	Classes, objects, functions, error handling
3–4	File Handling & Data Parsing	JSON, CSV, API payloads
5–6	Selenium WebDriver Basics	Locators, actions, waits
7–8	Selenium Advanced	Page Object Model, test design
9–10	PyTest Automation Framework	Fixtures, asserts, reporting
11–12	API Automation	Python requests, payload validation
13–14	Version Control (Git/GitHub)	Branching, merging, pull requests
15–16	CI/CD Integration	GitHub Actions or Jenkins
17–18	Debugging & Maintenance	Logs, screenshots, framework optimization

Week	Topic	Skills / Tools Covered
19–24	Automation Framework Capstone	Final project + presentation

MODULE LENGTH & SCHEDULE

- **Total Hours:** 96 hours

- **Length:** 24 weeks

- **Schedule:** 2 days/week × 2 hours/session

- **Format:** Online instruction + automation project

- **Capstone Presentation:** Required

TUITION & FEES

Item	Cost
Module 2 Tuition	$5,000
Registration Deposit (required)	$1,000

Payment Plan Options

Remaining balance divided into monthly installments during the module.

Accepted Payment Methods

Zelle, Venmo, PayPal, Stripe, Square, Credit/Debit.

REFUND POLICY (LEO-Compliant)

Timing	Refund
7+ days before module start	100%
After 1–2 months	50%
After 3–4 months	25%
After 4 months	No refund

Refund requests must be emailed to **info@tek2kareer.com** and processed within **14 business days**.

ADMISSION REQUIREMENTS

To enroll in this module, a student must:

- Hold a high school diploma, GED, or equivalent

- Demonstrate proficiency in basic computer operations

- Have completed **Module 1 — Software Quality Assurance**, or show proficiency via placement assessment

- Possess English literacy skills

- Provide government-issued ID

- Complete Enrollment Agreement

ATTENDANCE POLICY

- 80% attendance minimum

- More than 20% absences may result in removal

- Tardiness exceeding 15 minutes may be counted as partial absence

- Absences due to documented emergencies may be excused

- Students are responsible for missed work

GRADING POLICY

Component	Weight
Weekly Coding Assignments	35%
Practical Exercises	25%
Automation Framework Capstone	40%

Minimum passing grade: 70%

COMPLETION REQUIREMENTS

To complete this module successfully, students must:

✓ Attend at least 80% of classes

✓ Submit all Python automation assignments

✓ Complete and present the Automation Framework Capstone

✓ Participate in Projects and reviews

✓ Maintain a minimum 70% final grade

✓ Fulfill tuition obligations

Completion of this module **alone** does NOT result in a state-licensed certificate.
Both **Module 1 and Module 2** must be completed.

TOOLS & RESOURCES PROVIDED BY SCHOOL

Students will gain access to:

- Tutor LMS platform

- Zoom for live sessions

- Python IDE (PyCharm or VS Code)

- Selenium WebDriver

- GitHub repository access

- GitHub Actions / Jenkins pipeline

- Jira & TestRail for automation assignment integration

- Sample web apps for test automation

Student Equipment Requirements

- Laptop/desktop capable of running automation tools

- Webcam + microphone for presentations

- Stable internet connection

INSTRUCTOR QUALIFICATIONS

Automation instructors meet LEO and industry expectations:

- 5+ years experience in test automation

- Proficiency with Python, Selenium, PyTest, CI/CD

- Practical experience building automation frameworks

- Teaching, mentoring, or corporate training background

- Bachelor's degree or equivalent industry experience

DISCLAIMER

This program is a Michigan LEO-authorized **Software Quality Assurance & Automation Specialist Certificate** program. Modules may be taken individually for skill enhancement; however, completion of both modules is required to earn the certificate. Completion of this program does not guarantee employment but prepares students for industry-recognized software quality assurance and automation roles.

Students must complete both **Module 1 and Module 2** to earn the state-authorized certificate.