

Introduction to Python Programming Fundamentals (3 days)

Course Title / Code: TTEY101 introduction to Python Fundamentals

Duration: 3 days

Skill Level: Intermediate+

Audience: Experienced Programmers

Machines required? : Yes

Delivery Format: Available for onsite private classroom presentation, or live online / virtual presentation

Customizable: Yes

Lab / Workshop Format: Approx 50/50 lab to lecture: Extensive hands-on programming labs; Expert lecture combined with open discussions and in-depth demonstrations.

Courseware Available for License?: Yes

Pricing: Trivera Technologies is a **100% female-owned small business with GSA schedule** in place. Corporate rates, group discounts, public schedule and special offers are available. Please inquire for details.

Geared for experienced programmers, **Introduction to Python Programming** is a hands-on Python training course explores the Python language up to an intermediate level. Students will leave this class armed with the skills required to write Python programs dealing with sequences and mappings, program flow control, system calls and file manipulation. The course provides insight to the features of Python that make it an excellent choice for projects of virtually any size.

The course provides a solid foundation in basic terminology and concepts, extended and built upon throughout the engagement. Processes and best practices are discussed and illustrated through both discussions and group activities. Attending students will be led through a series of advanced topics comprised of integrated lectures, extensive hands-on lab exercises, group discussions and comprehensive demonstrations.

► Audience & Pre-requisites: Who Should Attend

This is an **intermediate-level** programming course designed for those already using Korn shell scripting, Perl, or C programming languages to manipulate files or control processes. Prerequisites include *Introduction to Unix course* or equivalent experience plus recent practical programming experience.

► Related Courses – Suggested Learning Path

Take Before: Students should have basic development skills and a working knowledge in the following topics, or attend these courses as a pre-requisite:

- TTCU1000 Introduction to UNIX or
- TTMH201 Intermediate UNIX and Korn Shell Scripting

► Experiential Learning: Hands-On Labs

This class is “technology-centric”, designed to train attendees in essential python programming skills, coupling the most current, effective techniques with the soundest industry practices.

This workshop is about **50% dynamic lab exercises** and **50% lecture**. Throughout the course students will be led through a series of progressively advanced topics, where each topic consists of lecture, group discussion, comprehensive hands-on lab exercises, and lab review. Multiple detailed lab exercises are laced throughout the course, designed to reinforce fundamental skills and concepts learned in the lessons. At the end of each lesson, developers will be tested with a set of review questions to ensure that he/she has fully understands that topic.

Our detailed lab workbooks are complete with software-specific instructions, screen shots and step-by-step tutorials for using the software you select. In most cases, we can easily port our classes to run in the environment of your choosing.

► Easy & Secure Set Up! LoadNGo™ Instant Classroom Kit

For course deliveries or virtual presentation using open-source tools, we'll provide our unique **LoadNGo Instant Classroom Kit**, which enables students to run the entire course off of a DVD that hosts the entire course set up software, labs, and other pertinent useful educational resources, whitepapers and more. You only need to provide the hardware and appropriate O/S, and we'll do the rest. No installation needed. **Great for secure environments.** Minimum set up burden for your team or firm, with maximum results for your students.

No matter which set up option or software your firm requires, we're pleased to provide a detailed set up guide for all private or on-site courses, and as much assistance as you require to prepare your students or classroom for the course. Our support personnel and instructors can be contacted for any advice you may require to prepare your classroom and/or students for attendance.

► Student Materials: What You'll Receive

Our robust course materials include much more than a simple slideshow presentation handout. Student materials include a comprehensive hard-copy course manual, complete with detailed course notes, code samples, diagrams and current reference materials, all directly related to the course at hand, indexed for

ease of use. Step-by-step lab instructions and project descriptions are clearly illustrated and commented for maximum learning.

In addition to everything students need for the course, the **LoadNGo Instant Classroom Kit** described above also includes of workshop labs and solutions; non-restricted workshop software, APIs, documentation, technical education papers, and specifications and tutorials pertinent to the training course. Our course kits are designed to serve as an excellent and useful reference set, long after we leave your classroom.

► **Optional Pre / Post-Testing & Skills Assessment**

We work with you to ensure that your resources are well spent. Through our basic course pre-testing and/or post-course assessments, we ensure your team is up to the challenges that this course offers. Our goal is to structure the best solution to ensure your needs are met, whether we customize the material, or devise a different educational path to prepare for this course. Please contact us for details about our online pre and post test assessment services, custom managed training plans for one student or your entire organization, or our custom online training

program management system for monitoring the courses or progress while skilling your students of all experience levels.

► **Bridging the Gap: Collaborative Mentoring Services**

Our team of technical experts is also available for various project assistance services to help your team apply their newly-learned classroom skills to their real-world project in a meaningful, practical way, right after the training ends.

Our custom **collaborative mentoring programs** integrate with or extend your team’s classroom training experience, to help bring these skills into existing (or inherited) legacy projects, into new projects, or to simply keep your students sharp them in between projects. Our programs can be highly involved and closely integrated with your project timelines or group development efforts, or can be less involved, serving simply as an overarching educational framework or ‘spot check’ to keep your group skills moving forward in between projects or waiting for projects to begin. Please contact us for details about this exciting custom service.

Workshop Topics Covered

Session: Python Overview

- Python History
- Python In Use
- Python References

- Mappings
- Functions
- Using/Developing Classes
- Using Modules
- GUI
- Pattern Matching

Need more info? Please note that a more detailed outline of the course table of contents, lists of lab exercises and project descriptions is available. Please contact us at Training@triveratech.com for info.

Session: The Python Language

- Python Statements
- Variable Assignment
- Flow Control
 - Branching
 - Looping
 - I/O
 - Sequences

Session: Using Python

- Designing Python applications
- Debugging
- Installing and using third party frameworks
- Distributing Python applications

Need courseware? This course is fully customizable, and also available for license with complete support for qualified organizations. Please contact Courseware@triveratech.com for details.

► **Why Work With Trivera Technologies?**

Whether you are a project leader choosing a training provider or course to bring to your team, or an organization or an instructor looking to potentially license or use course materials to train your own team, or a student looking for an exciting, targeted training class to attend or to recommend to your colleagues - **Our single focus is to make YOUR training event or experience a success.** Here’s why choosing Trivera Technologies as your education resource takes the risk right out of your decision making process...

- **We provide a solid application development foundation.** Students will learn how to develop (and reuse!) essential development and design skills and concepts properly, using best design practices, grounding them for advanced curriculum. Students will be prepared for designing and implementing real solutions, right after the class ends. Students will learn the importance of developing well-designed enterprise Java applications.
- **Our courses are focused - no "fluff" included.** We offer more than a “laundry list” approach to teaching. All lessons have clear objectives, are fundamental to core python development and design practices, and are reinforced by hands-on labs and solid practical examples. Each lesson has performance driven objectives that ensure students will learn technologies and skills core to fundamental python application design – nothing more, nothing less.
- **Our materials are comprehensive, and current.** Our comprehensive manuals include not only a hard copy of the course presentation, but also detailed reference notes, pertinent diagrams and charts, current lists of suggested online resources and articles, and often technical tutorials or white papers geared to the topics at hand. Our dedicated course development team keeps everything as current as possible with both industry trends and software editions to ensure your team is getting the most current information available.

- **We set you up!** Hands-on courses also include our unique materials for each student, complete with our **LoadNGo Instant Classroom** course set up DVD, software, and a multitude of learning resources that complement the course. Run the course right off the DVD – minimal set up for your company – maximum results for your students.
- **We foster "Learning by Doing"**. Progressive labs are designed in such a way that students get a firm grasp on fundamental skills while they work toward designing a complete application. All labs are take-home, and all solution code is presented in an easy to use self-study format for future use and review.
- **We have to adhere to higher standards.** As a courseware provider to other organizations, training firms or independent instructors, our content and hands-on lab materials are licensed internationally by dozens of firms, and are therefore subject to very stringent quality requirements. Not only will your organization benefit from our own technical team's technical expertise, but also the feedback of hundreds of students and trainers using these materials, worldwide, on a regular basis. This unique fact guarantees that our materials are not only robust and interesting, but also technically correct, current and of the highest quality and usability.
- **We bring years of practical, current experience into the classroom and content.** Our instructors and course authors are also skilled mentors, Java, JEE/JavaEE, J2EE, .Net, Agile, SOA, and web services developers, architects and security-oriented professionals. We believe that learning, using and maintaining solid software execution and delivery methods are as important as gaining sharp coding skills. Best Practices for software development and execution, beyond technical coding skills, are enforced throughout all of our courses and discussions. Our team brings this extensive experience into every classroom and engagement. Our team has trained thousands of students.
- **We're skills-centric.** Although our team has extensive experience using a variety of tools and solutions, our core content is "technology-centric". Our aim is to teach you the best skills and solutions out there – not to sell you software from any particular vendor.
- **We're certified.** We supply instructors in mentors certified in their fields to deliver our services.
- **We're published authors, online contributors and regular industry speakers.** Our team was selected to write the online *J2EE, EJB, EJB CMP-CMR and Web Services Tutorial Series for IBM developerWorks®* (www.ibm.com) These are the same instructors who train our classes and author the courseware. Most of our trainers/consultants have also authored additional articles on a variety of advanced IT topics, and are recognized speakers and presenters on the industry technical seminar circuit. Our team is comprised on several successful published authors. Members of our team have written or contributed to: *Eclipse Kick Start, Mastering Eclipse; Professional Jakarta Struts; Python Programming; Using Java Tools for Extreme Programming; Mastering Resin; Mastering TomCat and others.*
- **Our services are guaranteed.** Whether you're a stakeholder organizing your firm's educational services, a student in our live or virtual classroom or a trainer using our materials to educate your own client or team
– **Our core mission is to make YOU a success in the classroom.**



Trivera Technologies is a 100%
Female-Owned Small Business Concern
GSA Schedule # GS-35F-0188T
Please contact us for details & pricing.

► For Additional Information

Need dedicated training? All courses can be brought onsite or run virtually for a **private presentation, anywhere around the world**, customized to suit your unique requirements or goals. Please contact Training@triveratech.com for course details, Public Schedule dates and locations, and Special Discount Offers.

Need courseware? Let us take the risk out of your classroom delivery! All materials are also available for corporate license with complete instructor support and free corporate branding. We guarantee our pricing and service. Samples of our course materials, as well as live client references for all of our services are available upon request. Please contact Courseware@triveratech.com for details.

For more information about our training, mentoring or courseware development or licensing options, or to see our complete list of course offerings and services, please visit us at www.triveratech.com, email Training@triveratech.com or call 609.953.1515.