Micro-specialisation in Industry Coding Techniques

Suven Consultants & Technology Pvt Ltd.

ABOUT THE Micro-specialisation

SARDAR PATEL INSTITUTE OF TECHNOLOGY

The Knowledge Guarantee Micro-specialisation in Coding Techniques, is a Bootcamp designed for students pursuing UG (*specifically in Non-CS branches)* or working professionals looking to kickstart their career in programming.

Designed to get you the best Internships, this Coding Bootcamp features best-in-class live training, plenty of hands-on exercises and assignments and so much more.

Build a stellar project portfolio, get ready to crack interviews at product and service-based companies, and **launch your career as a Software developer**.

Gain an in-depth understanding of **how to do Object Oriented Analysis, Design & Programming to make real time softwares**. One would build expertise across Problem Solving, Python Coding, Business Logic and Software Engineering.

With our Coding Bootcamp you will **deep dive into various topics and techniques** via independent and group projects, individualized feedback, **1:1 mentorship by Industry experts**.

Hone your skills in hackathons spread across the program, and get access to dedicated career support and interview preparation to help you land your tech job.

This beginner-friendly Coding Bootcamp is designed in **Hybrid mode with 80:20 pattern. 80% would be online and 20% face to face physical coaching**.

Compile a **job-ready project portfolio** and become a versatile software developer with all the critical skills for a long and exciting career in tech.

ABOUT THE TRAINER

Rocky Jagtiani

Heading - Training & Content Development at **Suven Consultants & Technology** Pvt ltd. (an Recruitment Firm hiring for more than 40 Top IT MNC's in India)

Being the most engaging resource person for **AICTE sponsored FDP programmes** for taking hands-on session w.r.t topics related to Data Analysis, Machine learning and Deep learning for real time problem solving across all branches. Have trained more than **1500 engineering college faculties** till date through AICTE sponsored FDP programmes.

Lead-SME & Content developer for Databases, Python, Java, Javascript and Data-structures at **International University of Applied Sciences , Germany in collaboration with Upgrad.**

Lead-SME & Content developer for Data Analysis, Machine Learning and Deep Learning at **Purdue University in collaboration with Simplilearn**.

Trainer has a **total 22 years of Corporate training/teaching experience** out of which recent 10 years (since 2012) has been into corporate training on various programming languages, Data Science and Machine Learning.

Trainer is empanelled with **EnY, Accenture and Morgan Stanley** to periodically train their new joiners on Python, Machine learning and Data Analytics.

Trainer is empanelled with **RTI (Regional Training Institute, Mumbai)** to train CAG (Comptroller Auditor General ,*Central Govt.*) employees on Oracle SQL , PL/SQL and BI tools like Tableau and Qlikview. For entire Western India

Trainer is **certified** in Oracle databases, Google analytics, Oracle Java Professional, Machine learning and NLP.

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PROGRAM HIGHLIGHTS

200+
Hours of Learning Content

120+
Hours of Live Training Sessions

80+
Hours of Problem Solving Sessions

2
International Certification Exams
(PCEP™ & PCAT™)

2
Mock Interviews

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Course Curriculum

Course Code	**Course Name**	Teaching Scheme			Credits Assigned			**Total Credits**
		Theory	Pracs	Assignments	Theory	Pracs	Assignments	
ICT401	**OOP Fundamentals with Python**	1	1	1	1	1	1	3
ICT501	**Advanced Python Concepts & Real Problem Solving**	1	1	1	1	1	1	3
ICT601	**Database concepts - Mysql & MongoDB**	1	1	1	1	1	1	3
ICT701	**Automated Software Testing with Python**	1	1	1	1	1	1	3

Course Code	Course Name	Teaching Scheme			Credits Assigned			Total Credits
		Theory	Pracs	Assignments	Theory	Pracs	Assignments	
ICT401	**OOP Fundamentals with Python**	1	1	1	1	1	1	3

Prerequisite: Basic know-how of C or C++ Programming (as learned in Sem 1)

Course Objectives:

1. To familiarise with Object Oriented Analysis (OOA), Object Oriented Design (OOD) and Object Oriented Programming (OOP).
2. To acquaint with basic skills of object-oriented programming.
3. To familiarise with basic concepts and elements of the Python programming language.

Key topics to be covered

1. Python I/O formatting statements
2. Python data types
3. Python Control structures
4. Python loops
5. Python Exception Handling
6. Assignments - set 1
7. Introduction to Object-Oriented System Development
8. Introduction to Object-Oriented Modeling
9. Introduction to UML
10. Assignments - set 2
11. Python Classes & Objects
12. Python Inheritance
13. Python Method & Operator Overloading
14. Assignments - set 3

Course Code	Course Name	Teaching Scheme			Credits Assigned			Total Credits
		Theory	Pracs	Assignments	Theory	Pracs	Assignments	
ICT501	**Advanced Python Concepts & Real Problem Solving**	1	1	1	1	1	1	3

Prerequisite: Basic knowledge of Python Programming

Course Objectives:

1. To familiarise with different **Data Structures**.
2. To implement different Data Structures in Python.
3. To understand applications of Data Structures by solving real problems.
4. To build on logical and Analytical thinking.
5. Get ready for **International Certification in Python** - **PCEP™ – Certified Entry-Level Python Programmer**.

Key topics to be covered

1. Recalling - Core Python programming concepts
2. Application of Python List
3. Application of Python Tuple
4. Application of Python Dictionary
5. Application of Python Set
6. Application of Python Strings
7. Application of Python Matrix
8. Application of Python Byte Array
9. Application of Stack
10. Application of Linked list
11. Application of Heap
12. Application of Binary Tree and BST

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Course Code	Course Name	Teaching Scheme			Credits Assigned			Total Credits
		Theory	Pracs	Assignments	Theory	Pracs	Assignments	
ICT601	**Database concepts - Mysql & MongoDB**	1	1	1	1	1	1	3

Prerequisite: – NA –

Course Objectives:

1. To familiarise with need and structure of Databases - SQL and No-SQL both.
2. To familiarise with modelling Databases schemas according to Client requirements.
3. To acquaint with SQL programming skills.
4. To acquaint with MongoDB commands.
5. To implement 3-Tier applications using Python.

Key topics to be covered

1. Need for Databases & their structure
2. ACID properties
3. SQL programming on MYSQL - DDL
4. SQL programming on MYSQL - DML
5. SQL programming on MYSQL - DQL
6. SQL programming on MYSQL - TCL
7. Python - MySQL coding based Mini projects
8. MongoDB commands for Create , Insert , find and more..
9. Python - MongoDB coding based Mini projects
10. Python GUI (Tkinter Library) development
11. Implementing a 3-Tier application.
12. **Capstone Project -1**

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Course Code	Course Name	Teaching Scheme			Credits Assigned			Total Credits
		Theory	Pracs	Assignments	Theory	Pracs	Assignments	
ICT701	**Automated Software Testing with Python**	1	1	1	1	1	1	3

Prerequisite: Basic knowledge of Python Programming

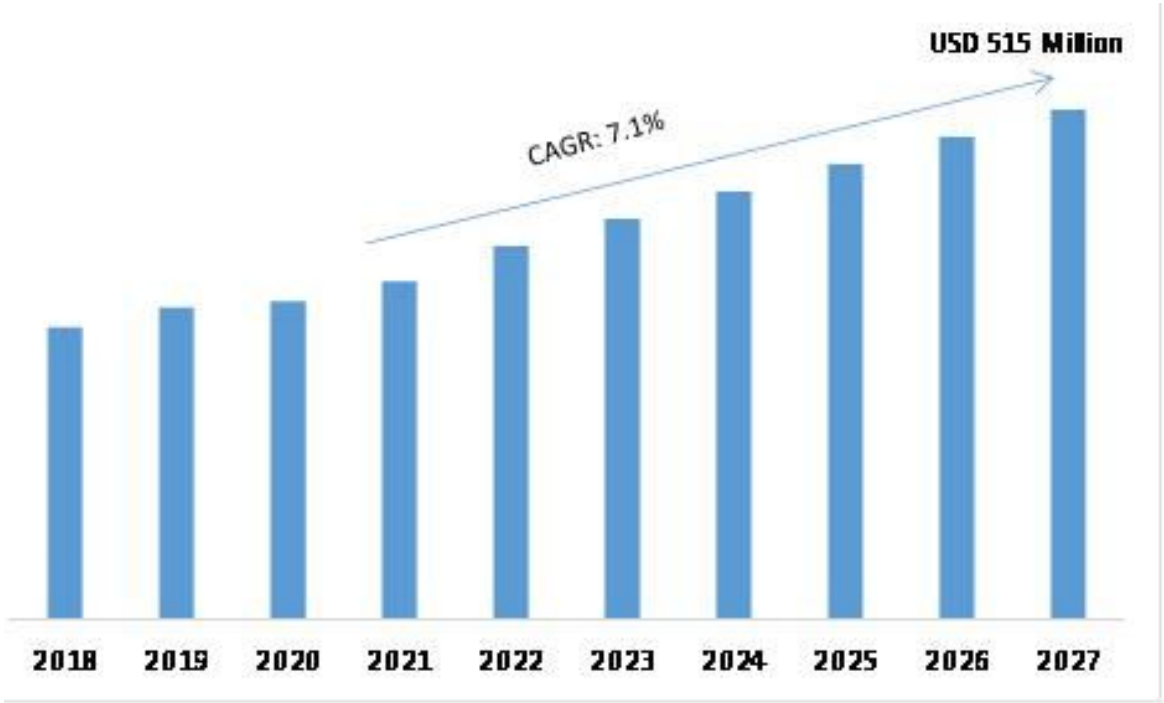
Course Objectives:

1. Familiarise with **design, develop, and refactor multi-module computer programs.**
2. Understand **Test-Driven Development (TDD)** and **Behavior-Driven Development (BDD)** programming approaches
3. Familiarise **testing-coding conventions**, **best practices** and software testing principles such as **DRY, KISS,** and **F.I.R.S.T**.
4. Get ready for **International Certification in software Testing** - ***PCAT™ – Certified Associate in Testing with Python*** **certification** exam.

Key topics to be covered

1. Software testing theory and terminology,
2. The test pyramid
3. Code coverage
4. Test automation
5. Code refactoring
6. Assertions
7. Context managers
8. Decorators
9. e2e tests
10. Unit tests & Integration tests
11. Test documentation
12. Introduction to concepts of test-driven (TDD) and behaviour-driven (BDD) development approaches.
13. **Mock Interview Prep**

Requirement of skilled Software Developers with Automated Testing skills



Source : https://www.marketresearchfuture.com/reports/test-management-software-market-10607

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Course Fees

Rs 9000/- per course per semester

Note : International Exam Fee is separate - visit https://pythoninstitute.org/

Course Schedule

Course Code	Course Name	Semester
ICT401	OOP Fundamentals with Python	4 (Jan - March)
ICT501	Advanced Python Concepts & Real Problem Solving	5 (July to Sept)
ICT601	Database concepts - Mysql & MongoDB	6 (Jan - March)
ICT701	Automated Software Testing with Python	7 (July to Sept)

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Certificate Awarded

- Completion of Micro Specialisation in Industry Coding Techniques
- Issued Jointly by SPIT, College and Suven Consultants & Technology Pvt ltd.

Queries ??

Please whats-app your specific query on 98925 44177