

# Course Title: Introduction to Python Scripting

Course Code: PESTECII188



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## Document Revision History

Version	Date	Author(s)	Reviewer(s)	Description
1.0	30 <sup>th</sup> March 2017	Namrata Mendis		Included the complete tool syllabus

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**CONTENTS**

COPYRIGHT NOTICE.....ii

Document Revision History.....iii

CONTENTS .....iv

## Course Title: CANoe Tool

Course Code:

### 1. Course Summary

**Aims and Summary:** This course aims at introducing the concept of scripting and the basics of Python Scripting.

### 2. Learning Objectives

After undergoing this module the students will be able to :  
Understand the Python scripting basics and its various features.

### 3. Course Content / Syllabus

**12 hours (Theory) + 3 hours (Lab)**

#### Unit 1: Starting off (0.5 hours)

1. Background
2. What is Python?
3. Python release versions(2.x and 3.x)
4. Tools/IDE available

#### Unit 2: Scripting Basics - 1 (4 hours)

5. Syntax
6. Data Types
7. Operators
8. Control Flow
9. Functions

#### Unit 3: Scripting Basics - 2 (4 hours)

10. File Input and Output
11. Classes
12. Modules
13. Package Installation

#### Unit 3: Lab session - 3 hour (Lab exercises)

### 4. Course Structure

Activity	Indicative Hours
Lectures	12
Tutorials / Assignments	-
Lab Sessions / Hands on	3
Mock Projects	-

### 5. Method Assessment

\*Assessment will be done on the Lab exercises performed by the candidates.

**6. Course Resources**

1. Class room presentations
2. Lab demonstrations
3. Hands on sessions

**7. Recommended Reading**

1. <http://www.learnpython.org/>
2. <https://www.tutorialspoint.com/python/>
3. Following text books can be referred:
  - a. Learn Python The Hard Way by Zed A. Shaw (3<sup>rd</sup> edition – September 2013)
  - b. Think Python - How to Think Like a Computer Scientist by Allen Downey (2.0.17 version – 2012 year edition)
  - c. Beginning Python - From Novice to Professional, Second Edition by Magnus Lie Hetland (2008 year edition)

**8. Lab Resources**

1. Python IDE (visit <http://www.python.org/download> for the latest version)
2. Python Manual

**9. Course Leaders with Mail ID**

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