

Government General Degree College, Muragachha
Department of Physics
offers 30 hours certificate course
on
Python Programming for Data Analysis and Numerical Simulations

[From 3rd June, 2019 to 14th June, 2019]



```
response = requests.get(url) # load from the website
# checking response.status_code (if you get 502, try rerunning the code)
if response.status_code != 200:
    print(f"Status: {response.status_code} - Try rerunning the code!")
else:
    print(f"Status: {response.status_code}\n")

# Using BeautifulSoup to parse the response object
soup = BeautifulSoup(response.content, "html.parser")

# finding Post images in the soup
images = soup.find_all("img", attrs={"alt": "Post image"})

# downloading images
for image in images:
```

ALL THE CLASSES WILL BE HELD IN SEMINAR-II



Government of West Bengal

Government General Degree College, Nakashipara

Department of Physics

MURAGACHHA, NADIA, PIN- 741154


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Ref. No. 07/19-20

Dated: 12.05.2019

NOTICE

This is to notify all concerned that the Department of Physics is going to organize a certificate course on 'Python Programming for Data Analysis and Numerical Simulations' from 03.06.2019 to 14.06.2019, free of cost. Certificate will be provided to the participating students after successful completion of the said course. Students of the Physics department of this college are requested to meet the course coordinator and enrol their names before commencement of the course.


12.05.2019
Course Coordinator
(Nasiruddin Ahammed)
Government General Degree College, Nakashipara


12.05.2019
Officer in Charge
Gov. Gen. Degree Coll. Nakashipara
Muragachha, Nadia



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Ref. No

Date :

Course Title: Python Programming for Data Analysis and Numerical Simulations'

Course Duration: 03.06.2019 to 14.06.2019

Course Description: This intensive course provides a rapid introduction to the fundamental concepts of the Python programming language. Participants will learn essential topics such as syntax, data types, control structures, functions, file handling, and basic object-oriented programming principles. Hands-on exercises and coding labs will reinforce learning.

Prerequisites: No prior programming experience required, but familiarity with basic computer operations is recommended.

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

1. Understand the basic syntax and structure of Python programs.
2. Implement control structures and loops to solve programming problems.
3. Utilize different data types and variables effectively in Python.
4. Define and use functions for modular programming.
5. Work with files to read from and write to external data sources.
6. Gain familiarity with basic object-oriented programming concepts in Python.

Day-wise Outline:

Day 1: Introduction to Python

- Overview of Python programming language
- Installing Python and setting up the environment
- Running the first Python program (Hello World)
- Basic structure of a Python program

Day 2: Variables and Data Types

- Variables and constants
- Primitive data types (integers, floats, strings)
- Type conversion and type inference


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Date :

Day 3: Control Structures

- Conditional statements (if, else if, else)
- Logical and relational operators
- Introduction to Boolean data type
- Using loops: while loop, for loop

Day 4: Functions

- Defining and calling functions
- Function parameters (positional, keyword)
- Function return types and return statements
- Function scope and global variables

Day 5: Data Structures

- Lists: creation, indexing, slicing, and methods
- Tuples: creation, accessing elements, immutability
- Dictionaries: key-value pairs, accessing and modifying elements

Day 6: File Handling

- Reading from and writing to files in Python
- Using file objects: open(), read(), write(), close()
- Error handling with try-except blocks

Day 7: Introduction to Object-Oriented Programming

- Classes and objects
- Constructors and instance variables
- Methods: instance methods, class methods, static methods

Day 8: More on OOP

- Inheritance: deriving classes, method overriding
- Polymorphism: method overloading
- Encapsulation: data hiding and abstraction

Day 9: Review and Practice





सत्यमेव जयते

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Date :

- Review of concepts covered throughout the course
- Hands-on coding exercises and practice problems
- Q&A session and wrap-up

Assessment:

- Daily exercises and quizzes: 50%
- Final project: 50%


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