DECCAN COLLEGE
Post-Graduate and Research Institute
Pune 411006
[Declared as deemed to be University under Section 3 of UGC Act 1956]

ADMISSION NOTICE: 2024

[NOTICE NO. AS/2024/1331]

I. Admissions are open for the following courses for the year 2024

1. **ONLINE Advanced Certificate course on 'Python Programming for Computational Linguistics and Natural Language Processing' (Please check detailed course information in Annexure-I below.)**

   - **Duration:2** months (30 hrs: 2 Credits)
   - **Intake Capacity:**20 seats
   - **Last date of Registration:** 1st May 2024
   - **Eligibility:**10+2 or equivalent from any recognised institute AND have (i) OR (ii) mentioned below;

   i) Should have completed the certificate course on "Python Programming for NLP and Computational Linguistics" jointly offered by Deccan College Post-Graduate Research Institute, Pune and MITU Skillologies, Pune.

   OR

   ii) Should have -
   - ✓ Practical knowledge of Python Programming
   - ✓ Basics of NLP through Python Programming
   - ✓ Basic mathematical reasoning

Note:

1. Candidate should fill in the admission form online on www.dcpune.ac.in
2. For any query, please contact on Academic Section**,** Tel: 020-26513237,academic@dcpune.ac.in
3. The University reserves the right to amend the policies at any point of time and adhere to the UGC norms and Govt. of Maharashtra.

Sd/-

Date: 27.03.2024

J. G. Kulkarni
Asstt. Registrar

Annexture-I

Information about course structure of ONLINE Advanced Certificate courses on 'Python Programming for Computational Linguistics and Natural Language Processing'

1) Course Name: Advanced Certificate courseonPythonforComputationalLinguisticsandNaturalLanguageProcessing.

2) Credits: 2 credits

3) Mode: Online (Google Meet)

4) Course Commencement: 2nd May 2024

5) Eligibility: 10+2 or equivalent **and**

i) Should have completed the certificate course on "Python Programming for NLP and Computational Linguistics" jointly offered by Deccan College Post-Graduate Research Institute, Pune and MITU Skillologies, Pune.

OR

ii) Should have -

- ✓ Practical knowledge of Python Programming
- ✓ Basics of NLP through Python Programming.
- ✓ Basic mathematical reasoning.

6) Intake Capacity: 20 seats

7) Minimum Seats: 10 Seats

8) Total Duration:5 weeks (30 hrs.)

9) Timings: Monday to Tuesday, 6:30 pm to 8:30 pm

10) Faculty: Mr. Tushar Kute

Mr. Kute is B.E. Computer from COEP and M.E. CSE from MIT with 17 years' experience in teaching and training. He is Microsoft Certified Technology Associate in Python Programming. He has conducted 50+ corporate batches of AI & DS using Python and over 200 student training programs across Maharashtra. Know more: http://tusharkute.com

11) Admission Link: www.dcpune.ac.in

12) Course Fees: 5,500/-

13) Prerequisite: Students should have their own laptop/Desktop.

14) Assessment: Participants' performance will be assessed (1) continually (this assessment will be out of 50 marks and will include regularity of attendance and students' performance in internal assignments) and (2) at the end of the course (this assessment will be out of 50 marks).

15) Final Examination: The final online examination will be of 50 marks.

16) Certificate: The final certification, will be issued jointly by Deccan College, Pune, and MITU Skillologies only to the eligible students. The passing mark will be 40 out of total 100 marks.

17) Syllabus:

1) Artificial Intelligence and Computational Linguistics
    17.1.1 Use of AI in linguistics
    17.1.2 Branches of AI

2)Information Extraction
    17.2.1 Ways to collect the data
    17.2.2 Web scrapping
    17.2.3 Python libraries of data collection

3) Automatic Text Summarization
    17.3.1 Abstractive text summarization
    17.3.2 Extractive text summarization

4) Word Sense Disambiguation
    4.1 How to check the literal meaning of words
    4.2 Python libraries of WSD

5) Machine Learning
    5.1 Supervised Learning
        5.1.1 Implementation of Decision Tree algorithm
    5.2. Unsupervised Learning
        5.2.2 Implementation of K-means clustering algorithm
    5.3 Python Libraries
        5.3.1 Using the scikit-learn library
        5.3.2 Using keras library
    5.4 Classification Algorithms for text classification
        5.4.1 What is text classification?
        5.4.2 The preprocessing methods
    5.5 Clustering Algorithms for text clustering
        5.5.1 Creating the groups of the data collected
        5.5.2 Applications of text clustering

6) Deep Learning
    6.1 Artificial Neural Network
        6.1.1 Build an artificial neural network
    6.2 Convolutional Neural Network for OCR
        6.2.1 Why and how CNN over ANN?
        6.2.2 Architecture of CNN.
    6.3 Recurrent Neural Network for Sequence Modelling
        6.3.1 What is sequence modelling?
    6.3.2 Application and examples of sequence modelling using RNN

7) Transformers Models
    7.1 Using the pre-built transformer models

8) BERT Models
    8.1 Using BERT for NLP
    8.2 Generative AI

9. Application Deployment.