

AC- 27/09/2019

Item No- 3.25



RayatShikshanSanstha's

Karmaveer Bhaurao Patil College, Vashi

Sector-15- A, Vashi, Navi Mumbai - 400 703

(Autonomous)

Department of Computer Science

SKILL BASED COURSE

FOR T. Y. B. SC.C.S. & M.SC.C.S. PART-II

**“COMPANY TO CORPORATE PROGRAM
WITH DATA SCIENCE”**

1. NAME OF THE COURSE: - COMPANY TO CORPORATE PROGRAM WITH DATA SCIENCE

2. OBJECTIVES OF THE COURSE:

- This course is designed to help students identify the knowledge and skills required for obtaining and keeping employment.
- Course work will emphasize individual skill assessments, interpersonal communication skills, workplace responsibilities, teamwork skills, safety issues, and personal management skills for the workplace
- Develop in depth understanding of the key technologies in data science and business analytics: data mining, machine learning, visualization techniques, predictive modeling, and statistics.
- Practice problem analysis and decision-making.
- Gain practical, hands-on experience with statistics programming languages and big data tools through coursework and applied research experiences.

3. Course Duration: 250 Hrs.

4. Intake Capacity: 30 students

6. Duration: 21 weeks

7. Evaluation Pattern:

CIA: 40%

External : 60%

8. Course taken by: Mr. Joel from TechnoServe

SYLLABUS :- EMPLOYABILITY TRAINING AND YOUTH EMPOWERMENT (60 HOURS)

| Module no. | Topics | Hours |
|-------------------|---|---|
| I | <p>Personal and Professional Effectiveness – Bringing out the inner confidence, goals and passions of student participants, while introducing them to key concepts in goal setting, financial planning and interpersonal skill development.</p> <p>Communication Readiness - introducing students to the basics in professional communication, communication dos' and don'ts' as well as a comprehensive guide to giving interviews and group discussion.</p> | <p>Week:-1 Two hours a day, six days a week</p> |
| II | <p>Career Readiness – This module will focus on providing an insight on the current job requirements in the software industry. This will encompass exploring career opportunities relevant to students from IT, Mathematics, Computer Science and Statistics related fields. It will provide students with an in depth knowledge of t different job domains as well as technical and soft skills required to get the job.</p> <p>Work Readiness - focused on addressing the gap students' face while transitioning from campus to corporate as well as inculcating a sense of professionalism in them</p> | <p>Week:-2 Two hours a day, six days a week</p> |
| III | <p>Career Counseling - focused on guiding students both individually and in group settings towards career choices that will intersect between their aptitude, interest and the market reality.</p> <p>Online Learning Platform (OLP) – focused on guiding students, reviewing the concepts they have learnt in training.</p> | <p>Week:-3 Two hours a day, six days a week</p> |
| IV | <p>Employment Linkages - we will work with your students to provide direct support for placement opportunities during and after the training program.</p> | <p>Week:-4 Two hours a day, six days a week</p> |

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| | Helpline for Placed Students (1 year) - telephonic counselling services and handling queries on placements and other concern areas for trained students of the program. | |
| V | Alumni Engagement - engagement via social media and college meet ups for students trained by the program to share learnings with peers. | Week:-5 Two hours a day, three days a week |

SYLLABUS :- TECHNICAL TRAINING PROGRAMME (190 HOURS)

| Module no. | Topics | Hours |
|-------------------|--|--|
| I | R Basics | Week:-6 Two hours a day, three days a week |
| II | Statistics and Mathematics Basics for data sciences | Week:-7 Two hours a day, three days a week |
| III | R for Data Sciences | Week:-8 Two hours a day, three days a week |
| IV | Python basics and Data Structures | Week:-9&10 Two hours a day, three days a week |
| V | Python for Data Sciences | Week:-11&12 Two hours a day, three days a week |
| VI | SQL | Week:-13&14 Two hours a day, three days a week |
| VII | Big Data using Hadoop | Week:-15 Two hours a day, three days a week |
| VIII | Concepts of Machine Learning and its Algorithm for Data Sciences | Week:-16 Two hours a day, three days a week |
| IX | Concepts of AI in data sciences | Week:-17 Two hours a day, three days a week |
| X | Data Visualization using Tableau | Week:-18 Two hours a day, three days a week |

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| XI | Quantitative Modules | Week:-19 Two hours a day, three days a week |
| XII | Revisiting Programming and technical concepts for Interview preparation: - Java, C++, Data Structure | Week:-20&21 Two hours a day, three days a week |

COURSE OUTCOMES:

1. Students will improve their speaking ability in English, both in terms of fluency and comprehensibility.
2. Students will participate in critical conversations and prepare, organize, and deliver their work to the public.
3. Apply quantitative modeling and data analysis techniques to the solution of real world business problems, communicate findings, and effectively present results using data visualization techniques.
4. Recognize and analyze ethical issues in business related to intellectual property, data security, integrity, and privacy.
5. Apply ethical practices in everyday business activities and make well-reasoned ethical business and data management decisions.
6. Demonstrate knowledge of statistical data analysis techniques utilized in business decision making.
7. Apply principles of Data Science to the analysis of business problems.
8. Use data mining software to solve real-world problems.
9. Employ cutting edge tools and technologies to analyze Big Data.
10. Apply algorithms to build machine intelligence.
11. Demonstrate use of team work, leadership skills, decision making and organization theory.