

Academic Council Meeting No. and Date : 03 / February 14, 2022

Agenda Number : 6

Resolution Number : 12 / 5.2



**Vidya Prasarak Mandal's
B. N. Bandodkar College of
Science (Autonomous), Thane**



Diploma in

Research Scholar Programme

With effect from

Academic Year 2022-2023

PREAMBLE

Science Square Committee and Research Committee started Research Scholar Programme in Academic year 2014-2015 with the prime objective of inculcating research aptitude among undergraduates. This course is also intended to have all round development of student's personality. Research Scholar Programme is of 24 months duration for which S.Y. B.Sc. students are enrolled after an entrance test. The entrance test involves multiple choice questions which are based on syllabi of 12th Science and F.Y.B.Sc. The course content consists of theory involving 5 units (2 credits i.e. 60 hrs) and practical including mini research project (2 credits i.e.100 hrs). The course not only includes various modules of research methodology but also topics based on presentation skills, writing proficiency, computational tools and environmental- societal aspects. The final evaluation of students is done using different criteria such as assignments and report of each module, report of mini research project and its oral presentation.

COURSE OUTCOMES:

- Course will produce well groomed students with improved logical and exploratory skills, enhanced literary proficiency, oratory ability and presentation techniques.
- It will enrich knowledge of students beyond regular syllabi.
- Student may become vigilant about surrounding environment and prove to be ethical researcher and responsible citizen.
- Course can act as an opportunity to explore ones research potential which may help in building career as scientist or corporate employees.

TEACHING-LEARNING OBJECTIVES:

- To instill ability of scientific investigation
- To extract rational and analytical thinking through modules based on research methodology
- To explore literature from research point of view using various web based resources
- To enrich information of appropriate methodology required to conduct research project
- To enhance reading and writing abilities by reviewing books, research papers, thesis, etc
- To introduce concept of IPR and patenting
- To teach basic computational tools (MS word, excel and power point presentation)
- To utilize statistical knowledge in research
- To upgrade talent of presenting research in public using poster and oral presentation
- To improve personal presentation skills involving body language and oratory ability
- To give exposure to good health practices (yoga, managing/healing negative emotions)
- To groom in order to face professional interviews and group discussion
- To train to execute event management
- To sensitize towards various environmental and social issues

Diploma in Research Scholar Programme

- **Eligibility** : **S.Y.B.Sc.**
- **Duration** : **24 Months**
- **Admission Criterion: Entrance Test (100 Marks)**
(Test is based on 12th Science and F.Y.B.Sc. Topics in form of MCQs)

Course Title : Diploma in Research Scholar Programme

CourseCode	Course Title	No. of lectures	Credits
BNBDIRS1T1	Research Scholar	60	2
BNBDIRS1P1	Mini Research Project	100	6

Course Content

Course Code	Course Title	Credits	No. of lectures
BNBDIRS1T1	Research Scholar	2	
Unit I	Research Methodology Part I		10
Unit II	Research Methodology Part II		13
Unit III	Communication Skills		17
Unit IV	Editing and Presentation Skills		08
Unit V	Environmental and Societal Aspects		12
	Total Hrs		60

Syllabus

Theory

UNIT	SUB-TOPICS	No. of lectures
I	Research Methodology Part I a) Research orientation b) How to select topic c) Preparation of research proposal d) Preparation of research paper e) IPR and Patent f) Instrumentation	10
II	Research Methodology Part II a) Use of library b) Reference work c) Review of research paper d) Poster presentation e) Presentation – oral ppt f) Book review g) Use of stats in research	13
III	Skill Development Part I a) Management of stress and anger b) Soft skills c) Yoga d) Event management e) Heal your life f) Personality development	17
IV	Skill Development Part II a) Editing news letter b) How to write an application c) Preparation of resume d) Group discussion e) Computer skills	08
V	Environmental and Societal Aspects a) Interaction with nature b) Ecotourism c) Social responsibility d) Industry visit	12

Practical

Mini Research Project	Duration Total 100 Hrs
<ul style="list-style-type: none">✓ Individual/Group (2-4 students) Research project✓ Table work of minimum 3-4 months✓ Project writing (Introduction, Objectives, materials & Methods, Results & Discussion)✓ Power Point Presentation of Research-Project✓ Assessment by Referee	

Evaluation Scheme

Theory Examination = 50 Marks

- Attendance (75% and more) = 20 Marks
- Assignments based on each topic = 20 Marks
(Total number of assignments: 25 each carrying 10 marks & reduced to 20%)
- Module Report = 10 Marks

Practical Examination = 50 Marks

- Project Work-done & Report = 30 Marks
- Oral Presentation & Viva-voce = 20 Marks

➤ Total of Theory Examination	50 Marks
➤ Total of Practical Examination	50 Marks
➤ Grand Total	100 Marks