

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
CHHATRAPATI SAMBHAJINAGAR.



Circular / Syll. Sec./ A.C. Res./ Curriculum/ 2026.

It is hereby inform to all concerned that, on the recommendation of Board of Studies; the Academic Council at it's Meeting held on 28th July, 2026 has accepted the "Curriculum of Pre-Ph.D. Course Work as per Guidelines of University".

This is effective from the Academic Year 2026-27 and onwards as per appended herewith.

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University campus,
Chhatrapati Sambhajinagar-431 004.
Ref. No. Syll. Sec./A.C. Res./
Curriculum/ 2026/ 2.2.1-2.4.1

}}
}}
}}
}}


Deputy Registrar
Syllabus Section

Date: 31/ 07/ 2026.

Copy forwarded with necessary action to:-

- 1] **The Head, all concerned departments,**
- 2] **The Director, University Network & Information Centre, UNIC,**
with **a request to upload this Circular on University Website.**
- 3] **The Director, Board of Examinations & Evaluation,**
- 4] **Public Relation Officer [PRO],**

Dr. Babasaheb Ambedkar Marathwada University,
Chhatrapati Sambhajinagar.

Dr.Babasaheb AmbedkarMarathwada University

Chhatrapati Sambhajanagar



Pre.Ph.d.course Subject wise curriculum List under the Faculty of Science & Technology.

Sr.No.	Curriculum/Subject
1.	Biochemistry
2.	Biotechnology
✓ 3.	Botany
4.	Chemistry
5.	Computer Engineering
6.	Computer Science
7.	Environmental Science
8.	Food Technology
9.	Geology
10.	Mathematics
11.	Microbiology
12.	Pharmacy
13.	Physics
14.	Statistics
15.	Zoology
16.	Civil Engineering
17.	Electronics Engineering
18.	Mechanical Engineering
19.	Nanotechnology
20.	Biophysics
21.	Pharmaceutical and Fine Chemical

Course .3 (C-3) Pre-Ph. D. Course Work in Botany Syllabus

(Subject - Specific Advanced Level Course)

Unit I: Plant Collection techniques:

1 credit

- A. Ethical and Legal issues of Research: Legal permissions for collection of biological material from Local Biodiversity committee, Forest Department, State Biodiversity Board and National Biodiversity Authority. Biological Diversity Act 2002.
- B. Collection equipment: Vasculum, Field Press, Field note books, Polythene bags, Blotting papers, label tags, Digger, secateurs, GPS, Camera, needles, forceps, Specimen tubes, liquid preservatives
- C. Voucher specimens: Voucher Specimen, Herbarium techniques, Liquid preservation, Authentication of specimens, submission of Voucher Specimens. Centres of submission of Voucher specimens in Maharashtra.
- D. Sampling of plant materials for Anatomical and micromorphological studies, Phytochemistry, DNA finger printing, Tissue Culture, Cytological, pathological studies etc.

Unit II: A. Plant Nomenclature:

1 credit

Principles of plant nomenclature, Systems of Nomenclature, Scientific names, Binomial system of Nomenclature, rules of binomial nomenclature, Citation of authority, Understanding the citation of nomenclature. Melbourne Code 2012, Shenzhen Code 2018, Madrid Code 2025

B. Biostatistics:

Biostatistics used in analysis of data - mean, variance, standard deviation, standard error, coefficient of variation and 't' test, lay out of field experiments, ANOVA

Unit III: A. Laboratory Techniques:

1 credit

Stains and Staining, Ultracentrifugation, Biochemical analysis, PCR, GISH, FISH techniques. Tissue culture technique, Spectrophotometer, Colorimeter, Flame photometer, Electrophoresis, pH meter, Microscopy, Electron microscopy – SEM, TEM etc.

B. Phytochemical analysis: TLC, HPLC, HPTLC, GCMS, LCMS, HRLCMS Techniques.


Professor Bhaskar Sathe,
Dean,
Faculty of Science & Technology,
Dr. Babasaheb Ambedkar
Marathwada University,
Chhatrapati Sambhajnagar


Prof. Dr. ARVIND S. DHABE
Chairman
Board of Studies in Botany,
Dr. Babasaheb Ambedkar Marathwada University,
Aurangabad - 431004