



**Dr. Babasaheb Ambedkar Memorial Society, Chandrapur**



## **Dr. Ambedkar College of Arts, Commerce & Science, Chandrapur**

**Affiliated to Gondwana University, Gadchiroli.**

**Re-accredited by NAAC 'B +' with 2.61 CGPA**

**ANNUAL QUALITY ASSURANCE REPORT**

**AQAR: 2022-2023**

### **CRITERION – I CURRICULAR ASPECTS**

**METRIC NO: - 1.1.1**



**METRIC NAME: 1.1.1 The Institution ensures effective curriculum delivery through a well-planned and documented**

**Web: - [dacchanda.ac.in](http://dacchanda.ac.in)**

**e-mail: - [dachanda@yahoo.in](mailto:dachanda@yahoo.in)**

**Phone: - 07172256080**

**Dr. Ambedkar College of Arts, Commerce & Science, Chandrapur**  
**Academic Calendar & Plan of the Session: 2022-23**

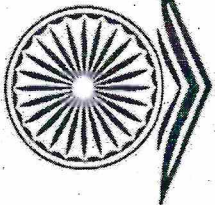
| <b>Date</b>                            | <b>Event (Activity)</b>                                |
|--|--|
| 21 June 2022                           | International Yoga Day                                 |
| 11 July 2022                           | World Population Day                                   |
| 9 August 2022                          | Kranti Din Programme                                   |
| 1 to 15 August 2022                    | Swachha Bharat Abhiyan                                 |
| 15 August 2022                         | Independence Day & NCC Parade                          |
| 20 Aug. to 5 Sept. 2022                | Samajik Samarasata Pandharwada and Sadbhavana Divas    |
| 5 Sept. 2022                           | Teacher's Day  |
| 8 September 2022                       | International Literacy Day                             |
| 24 September 2022                      | NSS Foundation Day                                     |
| 25 September 2022                      | Bari. Rajabhau Khobragade Jayanti & Debate Competition |
| 25 Sept. to 11 <sup>th</sup> Oct. 2022 | Swachha Bharat Abhiyan                                 |
| 2 Oct. 2022                            | World Non Violence Day & Gandhi Jayanti                |
| 31 Oct. 2022                           | Rastriya Ekata Din (Sardar Patel Jayanti)              |
| 26 Nov. 2022                           | Savidhan Din (Constitution Day)                        |
| 1 Dec. 2022                            | AIDS Awareness Day                                     |
| 6 Dec. 2022                            | Dr. Ambedkar Mahaparinirvan Din                        |
| 10 Dec. 2022                           | Manavadhikar Din (Human Rights Day)                    |
| 18 to 21 Dec. 2022                     | Swachhata Abhiyan                                      |
| Tentative as per University Schedule   | NSS Annual Camp  |
| Tentative as per College Schedule      | Annual Sports and cultural Mahotsav                    |
| 1 Jan. 2023                            | Blood Donation Camp                                    |
| 3 Jan. 2023                            | Kranti Jyoti - Savitribai Phule Jayanti                |
| 10 Jan. 2023                           | Road Safety Drive                                      |
| 17 to 25 Jan. 2023                     | Matdar Shiksha Sahbhag Karyakram                       |
| 26 Jan. 2023                           | Republic Day   |
| 8 March 2023                           | International Women's Day                              |
| 18 March 2023                          | Girishbabu Khobragade Jayanti                          |
| 9 April 2023                           | Bari. Rajabhau Khobaragade Smruti Deen                 |
| 14 April 2023                          | Dr. Ambedkar Jayanti                                   |
| 1 May 2023                             | Maharashtra Day  |
| 5 May 2023                             | Budhha Jayanti   |

| Gondwana University (Session)                                   | Gondwana University (Exam)          |
|---|-------------------------------------|
| First term (Odd semester):<br>16 July 2022 to 20 Jan. 2023      | -----                               |
| Diwali Holiday/ Winter Vacation<br>20 Oct. 2022 to 19 Nov. 2022 | Winter Semester: From 10 Dec 2022   |
| Second term (Even semester):<br>21 Jan 2023 to 31 May 2023      | Summer Semester: From 20 May 2023   |
| Summer Vacation: 16 May 2023 to 24 Jun 2023                     | Practical Semester: April, May 2023 |

| Actual Teaching Days   | College Exam   |
|--|--|
| Term I: 16 July 2022 to 20 Jan. 2023<br>Term II: 20 Jan 2023 to 31 May 2023  | <b>TERM-I</b><br>Unit Tests I: 4 <sup>th</sup> week of August 2022<br>Unit Tests II: 4 <sup>th</sup> week of Sept 2022<br>Unit Tests III: 4 <sup>th</sup> week of Nov. 2022<br>Unit Tests IV: 4 <sup>th</sup> week of Dec. 2022    |
| Completion of Syllabus   | <b>TERM-II</b><br>Unit Tests I : 4 <sup>th</sup> week of Feb 2023<br>Unit Tests II : 3 <sup>rd</sup> week of March 2023<br>Unit Tests III : 3 <sup>rd</sup> week of April 2023<br>Unit Tests IV : 2 <sup>nd</sup> week of May 2023 |
| <ul style="list-style-type: none"> <li>❖ About 95 % syllabus of Sem-I shall be completed up to 28 Dec. 2022 &amp; syllabus of Sem-II will be completed up to First week of May 2023.</li> <li>❖ Extra Classes will be arranged on Sunday &amp; holiday if needed.</li> </ul> |  |



*Dr. Ambedkar*  
PRINCIPAL  
Dr. Ambedkar Arts, Comm.  
& Sci. College, Chandrapur



ज्ञान-विज्ञान विमुक्तये

**University Grants Commission  
Human Resource Development Centre  
Kumaun University, Nainital, Uttarakhand, India**



**UGC - Sponsored Short Term Course**

*Online Mode*

This is to certify that

*Mr. Rahul Moreswar Labhane*

(Name of the participant)

*Dr. Ambedkar College of Arts, Commerce and Science*

(College/University)

*Assistant Professor*

(Designation)

*Chandrapur, Maharashtra*

(Place)

Affiliated to

*Gondwana University*

University

participated in the Short Term Course

*Research Methods for Social Sciences*

from *22/06/2022* to *29/06/2022*

*[Signature]*

Director

*[Signature]*

Coordinator

Registrar/Vice-Chancellor

**DR. AMBEDKAR COLLEGE OF ARTS, COMMERCE AND SCIENCE, CHANDRAPUR**

**ANNUAL TEACHING PLAN FOR THE SESSION: 2022 – 2023**

**Name of Teacher- Dr. Sanjay W. Patil      Subject- Botany**

| Sr. No. | Month     | Class        | No. of Proposed Periods | Portion of Syllabus to be Completed   |
|---------|-----------|--------------|-------------------------|---|
|         | Session-I |              |                         | <b>Paper -II-Bryophyta, Pteridophyta, Gymnosperm &amp; Paleobotany</b>  |
| 1       | August    | B. Sc. Sem-I | 25                      | UNIT –I:<br>1. Bryophyta: i. General characteristics ii. Classification (G. M. Smith) and Economic importance<br>2. Life history of: i. Hepaticopsida e. g. Riccia ii. Bryopsida e. g. Funaria<br>Practicals  |
| 2       | September | B. Sc. Sem-I | 24                      | UNIT –II:<br>1. Pteridophyta: i. General characteristics ii. Classification (G. M. Smith) ii. Types of stele<br>2. External Morphology and Reproduction of:<br>i. Psilophyta e. g. Rhynia<br>ii. ArthropHYta e. g. Equisetum<br>iii. Filicophyta e. g. Marsilea<br>3. Ecological and Economic importance                    |
| 3       | October   |              | 24                      | UNIT –III:<br>1. Gymnosperm: i. General characteristic<br>2. Classification (Sporne, 1965)<br>3. External Morphology and Reproduction of:<br>i. Cycadales e. g. Cycas ii. Coniferales e. g. Pinus<br>4. Economic importance<br>Practicals   |
| 4       | November  | B. Sc. Sem-I | 25                      | UNIT –IV:<br>1. Paleobotany: Definition, importance and significance.<br>2. Contributions of Indian Paleobotanists- Birbal Sahni.<br>3. The process of fossilization (Replacement theory, Infiltration theory)<br>4. Types of fossils (Impression, Compression and Petrification)<br>5. Geological time scale<br>Practicals |
|         |           |              |                         | 6. Fossil gymnosperm:<br>(a) Glossopteris (Pteridospermatophyta)  |


**Dr. Ambedkar College of Arts, Commerce & Science,  
Chandrapur**


**ANNUAL TEACHING PLAN  
FOR THE SESSION 2022-2023**

Name of Teacher: Dr. G. G. Ramteke Department: Physics

| Sr. No.          | Month          | Class                            | No. of Proposed Periods | Portion of syllabus to be Completed   |
|------------------|----------------|----------------------------------|-------------------------|---|
| <b>Session-I</b> |                |                                  |                         |   |
| 1                | July-2022      | B. Sc. I, II, III & M. Sc. I, II | Admission Process       |   |
| 2                | August-2022    | B. Sc. Sem I                     | TH-16                   | <u>Paper II, Unit I:</u> Gravitation, Motion of particle in central force field, Angular momentum, Gravitational field, G. Potential, G. Self energy of body, Kepler's laws, Satellite in circular orbit & Applications, Geosynchronous orbit, Weightlessness, Basic idea of Global positioning system (GPS), .<br><i>Numericals and Unit Test-I</i>                            |
|                  |                |                                  | P-24                    | Demonstration of practical of Section A & B   |
|                  |                | B. Sc. S- III                    | P-24                    | Demonstration of practical of Section A & B   |
| 3                | September-2022 | B. Sc. Sem-I                     | TH-16                   | <u>Unit II:</u> SHM, Differential Equation of SHM & its solution, K. E., P. E., T. E. and their time average, Free, Damped and Forced Harmonic Oscillations, Diff. eq <sup>n</sup> of Damped H. O. and its solution, Power absorption & Power dissipation, Resonance, Quality factor & Band width, <i>Numericals. Unit Test-II</i>  |
|                  |                |                                  | P-24                    | Completion of <b>practicals</b> of Section A & B  |
|                  |                | B. Sc. S- III                    | P-24                    | Completion Practical of Section A & B   |
| 4                | October-2022   | B. Sc. Sem-I                     | TH-16                   | <u>Unit III:</u> Twisting couple on a cylinder, $\eta$ by statistical torsion, Torsional pendulum, Determination of $\eta$ , <i>Numericals. Unit Test-III.</i>  |
|                  |                |                                  |                         | <u>Unit IV: Viscosity:</u> Streamline & turbulent flow, Reynold's number, Equation of continuity, Bernoulli's theorem & its applications, Poiseuille's Eq <sup>n</sup> .<br><u>Surface Tension:</u> Molecular interpretation of S. T., Angle of contact, Excess of pressure inside a liquid drop, Bubbles in air & liquid, Wetting & spreading, <i>Numericals. Unit Test-IV</i> |

|    |          |                              |      |  |
|----|----------|------------------------------|------|--|
|    |          |                              |      | &B.Checking and Certifying of practical records.   |
|    |          | B. Sc. S-IV                  | P-24 | Completion of practicals of Section A &B.<br>Checking and Certifying of practical records. |
| 11 | May-2023 | B. Sc. (All)<br>M. Sc. (All) |      | University Theory Examination, Valuations.   |

  
 Signature of Teacher  
 (Dr. G. G. Ramteke)

  
 Signature of HOD  
**HEAD**  
**DEPARTMENT OF PHYSICS**  
 Dr. Ambedkar College, Chandrapur


**DR. AMBEDKAR COLLEGE OF ARTS, COMMERCE AND SCIENCE CHANDRAPUR**

**ANNUAL PLAN OF TEACHING WORK FOR THE SESSION : 2022-23**

Name of Teacher : Dr. P. M. Shende

Subject : CHEMISTRY

| Session-I  |           |              |                           |  |
|------------|-----------|--------------|---------------------------|--|
| Sr. No.    | Month     | Class        | No. of Proposed Periods   | Portion of Syllabus to be completed  |
| 1          | August    | B.Sc. Sem-I  | Theory-13<br>Practical-45 | <b>Paper-I (Inorganic Chemistry)</b><br><b>Unit-I:</b> (A) Atomic Structure (B) Periodic Properties<br><b>Practical:</b> Volumetric Analysis   |
| 2          | September | B.Sc. Sem-I  | Theory-12<br>Practical-33 | <b>Paper-I (Inorganic Chemistry)</b><br><b>Unit-II:</b> (A) Covalent Bond (B) Molecular Orbital Theory<br><b>Practical:</b> Volumetric Analysis  |
| 3          | October   | B.Sc. Sem-I  | Theory-5<br>Practical-18  | <b>Paper-I (Inorganic Chemistry)</b><br><b>Unit-III:</b> ( A) S- Block Elements (B) P-Block Elements<br><b>Practical:</b> Qualitative Analysis   |
| 4          | November  | B.Sc. Sem-I  | Theory-5<br>Practical-18  | <b>Paper-I (Inorganic Chemistry)</b><br><b>Unit-III:</b> ( A) S- Block Elements (B) P-Block Elements<br><b>Practical:</b> Qualitative Analysis   |
| 5          | December  | B.Sc. Sem-I  | Theory-12<br>Practical-18 | <b>Paper-I (Inorganic Chemistry)</b><br><b>Unit-IV:</b> Chemistry of Nobel Gases<br><b>Practical:</b> Practical Examination  |
| Session-II |           |              |                           |  |
| 1          | January   | B.Sc. Sem-II | Theory-5<br>Practical-39  | <b>Paper-II (Physical Chemistry)</b><br><b>Unit-I:</b> Mathematical concept<br>(B) Statements.....temperature(C) Thermochemistry<br><b>Unit-III:</b> Gaseous State(A) Postulates ..... number.<br><b>Practical:</b> Physical Chemistry Practicals, |
| 2          | February  | B.Sc. Sem-II | Theory-11<br>Practical-33 | <b>Paper-II (Physical Chemistry)</b><br>Ionic equilibrium, Thermodynamics.<br><b>Practical:</b> Physical Chemistry Practical- Liquid State   |
| 3          | March     | B.Sc. Sem-II | Theory-13<br>Practical-36 | Thermochemistry<br><b>Unit-III:</b> Gaseous State(A) Postulates ..... number.  |
| 4          | April     | B.Sc. Sem-II | Theory-11<br>Practical-33 | Gaseous State(B)<br><b>Unit-IV (A) Properties of Liquid</b><br><b>Practical:</b> Practical Examination   |
| 5          | May       | B.Sc. Sem-II | Theory-11<br>Practical-33 | <b>Practical:</b> Practical Examination  |

  
 Dr. P. M. Shende



**DR. AMBEDKAR COLLEGE OF ARTS, COMMERCE AND SCIENCE, CHANDRAPUR**

**ANNUAL TEACHING PLAN FOR THE SESSION: 2022-2023**


Name of Teacher: **Dr. N. C. Das**

Subject: **Chemistry**

| <b>Session-I</b>  |              |              |                                |   |
|-------------------|--------------|--------------|--------------------------------|---|
| <b>Sr. No.</b>    | <b>Month</b> | <b>Class</b> | <b>No. of Proposed Periods</b> | <b>Portion of Syllabus to be completed</b>  |
| 1                 | July         | B.Sc. Sem-I  | Theory-11<br>Practical-18      | <b>Paper-II (Organic Chemistry) Unit-I:</b><br>(A) Physical effect B) Electronic Displacement<br>(C) Types of reactions D) Strength of organic acids and bases<br><b>Practical:</b> Volumetric Analysis   |
| 2                 | August       | B.Sc. Sem-I  | Theory-12<br>Practical-24      | <b>Paper-II (Organic Chemistry) Unit-II:</b> (A) Basic concept of isomerism<br>(B) Concepts of isomerism<br><b>Practical:</b> Volumetric Analysis   |
| 3                 | September    | B.Sc. Sem-I  | Theory-11<br>Practical-24      | <b>Paper-II (Organic Chemistry) Unit-III:</b> (A) Alkane(B) Cycloalkane C)Alkene<br>D) Diene E) Alkyne<br><b>Practical:</b> Qualitative Analysis  |
| 4                 | October      | B.Sc. Sem-I  | Theory-5<br>Practical-18       | <b>Paper-II (Organic Chemistry) Unit-IV:</b> A) Preparation and Chemical reactions<br>B) Structure, Orbital Diagram, Aromaticity<br>C)Orientation<br><b>Practical:</b> Practical Examination  |
| <b>Session-II</b> |              |              |                                |   |
| 1                 | November     | B.Sc. Sem-II | Theory-5<br>Practical-9        | <b>Paper-I (Organic Chemistry) Unit-I:</b> (A) Alkyl halide<br><b>Practical:</b> Purification of an impure organic compound   |
| 2                 | December     | B.Sc. Sem-II | Theory-11<br>Practical-24      | <b>Paper-I (Organic Chemistry) Unit-I:</b> (B) Aryl halide<br><b>Unit-II:</b> A) Alcohol and diol B) Phenol<br><b>Practical:</b> Purification of an impure organic compound,<br>Organic Preparations  |
| 3                 | January      | B.Sc. Sem-II | Theory-12<br>Practical-21      | <b>Paper-I (Organic Chemistry) Unit-II:</b> (C) Ethers<br><b>Unit-III: Aldehyde and ketone</b><br>(A) Nomenclature ....B) Synthesis of aliphatic...<br>C) Synthesis of aromatic aldehyde<br><b>Practical:</b> Physical Chemistry Practicals<br>Thermochemistry, Ionic equilibrial |
| 4                 | February     | B.Sc. Sem-II | Theory-11<br>Practical-18      | <b>Paper-I (Organic Chemistry) Unit-III:</b> (D) Reaction with HCN, ROH.....<br><b>Unit-IV</b> (A) Carboxylic acid and dicarboxylic acid<br><b>Practical:</b> Physical Chemistry Practical- Liquid State  |
| 5                 | March        | B.Sc. Sem-II | Theory-12<br>Practical-24      | <b>Unit-IV:</b> (B) Carboxylic acid and derivatives<br><b>Practical:</b> Practical Examination  |

B.Sc. Sem.- IV & V

| Session-I  |           |              |                           |   |
|------------|-----------|--------------|---------------------------|---|
| Sr. No.    | Month     | Class        | No. of Proposed Periods   | Portion of Syllabus to be completed   |
| 1          | July      | B.Sc. Sem-V  | Theory-11<br>Practical-24 | <b>Paper-I (Organic Chemistry)</b><br><b>Unit-I: Spectroscopy</b><br><b>Practical:</b> Identification of organic compound on the basis of NMR data, Estimation of hydroxyl number of a polymer,   |
| 2          | August    | B.Sc. Sem-V  | Theory-11<br>Practical-27 | <b>Paper-I (Organic Chemistry)</b><br><b>Unit-II: Organic Synthesis via Enolates</b><br><b>Practical:</b> Estimation Formaldehyde, Preparation of nylon 66, urea-formaldehyde resin.  |
| 3          | September | B.Sc. Sem-V  | Theory-12<br>Practical-24 | <b>Paper-I (Organic Chemistry)</b><br><b>Unit-III: Polymers, Polymerization reactions and Fabrics</b><br><b>Practical:</b> To determine the strength of strong acid and a weak acid in a given mixture,<br>To determine the solubility and solubility product of a sparingly soluble salt |
| 4          | October   | B.Sc. Sem-V  | Theory-4<br>Practical-15  | <b>Paper-I (Organic Chemistry)</b><br><b>Unit-IV: Green Chemistry and Technology for sustainable development</b><br><b>Practical:</b> To determine the dissociation constant of weak acid potentiometrically<br><b>Practical Examination</b>  |
| Session-II |           |              |                           |   |
| 1          | November  | B.Sc. Sem-IV | Theory-4<br>Practical-6   | <b>Paper-II (Organic Chemistry)</b><br><b>Unit-I:(A) Nitro Compound</b><br><b>Practical:</b> Preparation of complexes   |
| 2          | December  | B.Sc. Sem-IV | Theory-12<br>Practical-24 | <b>Paper-II (Organic Chemistry)</b><br><b>Unit-I: Amino compounds and Diazoniumsalt</b><br><b>Practical:</b> Preparation of complexes ,Colorimetry /spectrophotometry   |
| 3          | January   | B.Sc. Sem-IV | Theory-11<br>Practical-24 | <b>Paper-II (Organic Chemistry)</b><br><b>Unit-II: Organometallic Compounds &amp; Heterocyclic Compounds</b><br><b>Practical:</b> Estimate of Nickel,Aluminium& Preparation of aspirin and Paracetamol  |
| 4          | February  | B.Sc. Sem-IV | Theory-10<br>Practical-21 | <b>Paper-II (Organic Chemistry)</b><br><b>Unit-III: Amino Acids, Peptides and Proteins, Quantitative Analysis</b><br><b>Practical:</b> Separation and identification of organic compounds   |
| 5          | March     | B.Sc. Sem-IV | Theory-8<br>Practical-21  | <b>Unit-IV: (B) Carbohydrates, Synthetic Dyes &amp; Drugs</b><br><b>Practical:</b> Practical Examination  |

  
**H.O.D.**  
 Department of Chemistry  
 Dr. Ambedkar College,  
 Chandrapur