

**Govt. T. R. S. (Autonomous) College Rewa (M.P.)**

**(Affiliated to A.P.S. University Rewa)**

**Department of Chemistry**

**Syllabus for B.Sc. (Hons.) Chemistry on CBCS**

**Session 2023-24**

<b>Part A - Introduction</b>			
<b>Program: UG (Diploma)</b>	<b>Class: B.Sc. Chemistry</b>	<b>Semester: IV</b>	<b>Session: 2023-24</b>
<b>Subject: Chemistry (Honours)</b>			
<b>1</b>	<b>Course code</b>	<b>CHST-04</b>	
<b>2</b>	<b>Course title</b>	<b>ENVIRONMENTAL IMPACT ANALYSIS</b>	
<b>3</b>	<b>Course type</b>	<b>Skill Enhancement Course</b>	
<b>4</b>	<b>Pre-requisite (if any)</b>	<b>Open for All</b>	
<b>5</b>	<b>Course Objective</b>	The objective of this course to make students aware about the roll of chemistry in daily life.	
<b>6</b>	<b>Course Learning Outcomes (CLO)</b>	<b>By the end of this course, the students will be able to:</b> <ul style="list-style-type: none"><li>• Learn about the adulteration</li><li>• Prepare new innovative formulations</li></ul>	
<b>7</b>	<b>Credit Value</b>	<b>4</b>	
<b>8</b>	<b>Total Marks</b>	<b>Max. Marks (40+60): CCE+ESE</b>	<b>Min. Passing Marks:</b>
<b>Part B – Content of the course</b>			
<b>Total No. of Lectures-Tutorials-Practical (2 hours per week):</b> <b>L-T-P: 30-0-00</b>			
<b>Unit</b>	<b>Topic</b>		<b>No. of Lectures</b>
<b>1</b>	Origin and Development Purpose and aim, core values and principles, History of EIA development, Environmental Management Plan, Environmental Impact Statement, Scope of EIA in Project planning and Implementation.		<b>8</b>
<b>2</b>	<b>EIA Process</b> Components of EIA, EIA Methodology- Screening, Scoping, Baseline data, Impact Identification, Prediction, Evaluation and Mitigation, Appendices and Forms of Application, Techniques of Assessment-Cost-benefit Analysis, Matrices, Checklist, Overlays, Impact on Environmental component: air, noise, water, land, biological, social and environmental factors. EIA Document.		<b>8</b>

3	Main participants in EIA Process Role of Project proponent, environmental consultant, PCBs, PCCs, public and IAA. Public participation.	7
4	Introduction to Cement and cement manufacturing process, Types of Cement. Treatment of water, identification BOD, COD, DO. Determination pH of water sample.	7
<b>Part C – Learning Resources</b>		
<b>Text Books, Reference Books, Other resources</b>		
<p><b>Suggested Reading:</b></p> <ol style="list-style-type: none"> <li>1. Dubey, R.C. (2005). A Text book of Biotechnology S.Chand &amp; Co, New Delhi.</li> <li>2. John Jothi Prakash, E. (2004). Outlines of Plant Biotechnology. Emkay Publication, New Delhi.</li> <li>3. Kumaresan, V.( 2005). Biotechnology, Saras Publications, New Delhi.</li> <li>4. NIIR Board. (2012). The complete Technology Book on Biofertilizer and organic farming. 2nd Edition. NIIR Project Consultancy Services.</li> <li>5. Sathe, T.V. (2004) Vermiculture and Organic Farming. Daya publishers.</li> <li>6. Subba Rao N.S. (2017). Biofertilizers in Agriculture and Forestry. Fourth Edition. Medtech.</li> <li>7. Vayas,S.C, Vayas, S. and Modi, H.A. (1998). Bio-fertilizers and organic Farming Akta Prakashan, Nadiad.</li> </ol>		
<b>Suggested equivalent online:</b>		
<b>Part D – Assessment &amp; Evaluation</b>		
Suggested Continuous Evaluation Method		
Any remark / suggestion:		
This course can be opted as an elective by the students of the following subjects:		
<b>Open for All</b>		
Continuous & Comprehensive Evaluation shall be based on allotted Assignment and Class Test		

**Keywords:**

Silica, Alumina, Iron Oxide, Shale, Portland cement, gypsum.

**Govt. T. R. S. (Autonomous) College Rewa (M.P.)**

**Department of Chemistry**

**Syllabus for B.Sc. Chemistry**

**on CBCS**

**Session 2023-24**

<b>Part A - Introduction</b>			
<b>Program: UG (Diploma)</b>	<b>Class: B.Sc. Chemistry</b>	<b>Semester: IV</b>	<b>Session: 2023-24</b>
<b>Subject: Chemistry (Honours)</b>			
<b>1</b>	<b>Course code</b>	<b>CHSP-04</b>	
<b>2</b>	<b>Course title</b>	<b>ENVIRONMENTAL IMPACT ANALYSIS(Practical)</b>	
<b>3</b>	<b>Course type</b>	<b>Skill Enhancement Course</b>	
<b>4</b>	<b>Pre-requisite (if any)</b>	<b>Open for All</b>	
<b>5</b>	<b>Course Objective</b>	The objective of this course to make students aware about the roll of chemistry in daily life.	
<b>6</b>	<b>Course Learning Outcomes (CLO)</b>	<b>By the end of this course, the students will be able to:</b> <ul style="list-style-type: none"><li>• Learn about the adulteration</li><li>• Prepare new innovative formulations</li></ul>	
<b>7</b>	<b>Credit Value</b>	<b>2</b>	
<b>8</b>	<b>Total Marks</b>	<b>Max. Marks (60+40):</b>	<b>Min. Passing Marks:</b>
<b>Part B – Content of the course</b>			
<b>Total No. of Lectures-Tutorials-Practical (4 hours per week):</b>			
<b>L-T-P: 00-0-15</b>			
<b>Unit</b>	<b>Topic</b>		<b>No. of Lectures</b>
<b>1</b>	1. Determination of hardness of water. 2. Determination of chloride in water sample. 3. Determination of moisture in cement sample.		<b>15</b>
<b>Part C – Learning Resources</b>			
<b>Text Books, Reference Books, Other resources</b>			
<b>Suggested Reading:</b> <ol style="list-style-type: none"><li>1. Perry, A.S.; Yamamoto, I.; Ishaaya, I.; Perry, R.Y.(1998),<b>Insecticides in Agriculture and Environment</b>, Springer-Verlag Berlin Heidelberg.</li><li>2. Kuhr, R.J. ; Derough, H.W.(1976),<b>Carbamate Insecticides: Chemistry, Biochemistry and Toxicology</b>, CRC Press,USA.</li></ol>			
<b>Suggested equivalent online:</b>			

<b>Part D – Assessment &amp; Evaluation</b>
Suggested Continuous Evaluation Method
Any remark / suggestion:
This course can be opted as an elective by the students of the following subjects:
Continuous & Comprehensive Evaluation shall be based on allotted Assignment and Class Test

**Keywords:**

Chlorine, chloride, BIS.