DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
CHHATRAPATI SAMBHAJINAGAR.

CIRCULAR NO.SU/B.Sc.Geo./CBC &GS /28/2024

It is hereby inform to all concerned that, the syllabus prepared by the Ad-hoc Board and recommended by the Dean, Faculty of Science & Technology, Academic Council at its meeting held on 08 April 2024 has accepted the **Syllabus of B.Sc. Geology (Optional) (Vth& VIth semester) under the Faculty of Science & Technology as per Choice Based Credit Grading System** as appended herewith.

This is effective from the Academic Year 2024-25 and onwards.

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

University Campus,
Chhatrapati Sambhajinagar
REF.NO.SU/2024/3651-59
Date:- 08.07.2024.

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Deputy Registrar,
Academic Section

Copy forwarded with compliments to :-

1] **The Principal of all concerned Colleges,**
Dr. Babasaheb Ambedkar Marathwada University,
2] **The Director, University Network & Information Centre, UNIC, with a request to upload this Circular on University Website.**

Copy to :-

1] The Director, Board of Examinations & Evaluation, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
2] The Section Officer,[B.Sc.Unit] Examination Branch, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
3] The Programmer [Computer Unit-1] Examinations, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
4] The Programmer [Computer Unit-2] Examinations, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
5] The In-charge,[E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
6] The Public Relation Officer, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
7] The Record Keeper, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.

Dr. Babasaheb Ambedkar Marathwada University

Chhatrapati Sambhajinagar – 431004, Maharashtra State (India)

Subject: B.Sc. Geology

Choice-Based Credit Grading System

(Effective from Academic Year : 2024 – 2025)

Dr. Babasaheb Ambedkar Marathwada University,

Chhatrapati Sambhajinagar – 431004, Maharashtra State (India)

Dr.Babasaheb Ambedkar Marathwada University,
Chhatrapati Sambhajinagar

Choice Based Credit System (CBCS) Curriculum
For
Faculty Of Science And Technology
Course Structure And Scheme Of Examination
B.Sc. Three Year Undergraduate Degree Program

Bsc T.Y.

Semester V

	Course Code	Course Title	Teaching Time/Week	Credits	Scheme Of Examination			
					Max Marks	CIA	UA	Min Marks
Optional I (DSE-1A) Discipline Specific Elective	GEO-511	Indian Geology (Theory Paper-IX)	2 hours	2	50	10	40	20
	GEO-512	Economic Geology (Theory Paper-X)	2 hours	2	50	10	40	20
	GEO-521	Lab Course 3 (based on GEO-511)	3 hours	1.5	50	10	40	20
	GEO-522	Lab Course 4 (based on GEO-512)	3 hours	1.5	50	10	40	20
Skill Enhancement Course (SEC-3)	GEO-513	SEC-3 Any one skill to be chosen out of two **(E) Geology of Maharashtra** **(F) Ore minerals Deposit of India**	2 hours	2	50	10	40	20
None Credit Course	GEO-514	Professional Ethics and Moral Values	2 hours					
			14	9	250	50	200	100
Total Credits for Semester V : 9 (Theory : 06 : Laboratory : 03)								

Principal
Deogiri College,
Chhatrapati Sambhajinagar

Bsc: T.Y.
Semester: Vth
Subject: Geology
Core Course :
Paper: Skill Enhancement Course (SEC-3 E)
Paper Name: SEC-3(E) Geology of Maharashtra

Sr. No	Topics	Total Periods	Marks
UNIT I	**Introduction to Geology of Maharashtra** Physiographic Divisions of Maharashtra, Major rivers and lakes Reservoirs, Recent Alluvium Formation of Maharashtra.	10	10
UNIT II	Distribution, and classification of different rocks of Archean	10	10
UNIT III	Distribution, Classification, economic importance of the following Gondwana super group	10	10
UNIT IV	Distribution, Classification, economic importance of the following Cretaceous deposit- Deccan trap formation, Lameta and bagh beds, Inter-trappean and Infra-trappean beds	10	10
UNIT V	Tutorials, seminars and Assignments	05	10

Bsc: T.Y.
Semester : Vth
Subject: Geology
Paper : Skill Enhancement Course (SEC-3 F)
Paper Name : SEC-3 (F) Mineral Deposit of Maharashtra

Sr. No	Topics	Total Periods	Marks
UNIT I	**Introduction to minerals deposit** Introduction to classification of minerals deposits **Physical properties of minerals:-** Colour, Streak, Luster, Form or Habit, Cleavage, Fracture, Hardness, Specific Gravity (Sp.gr.), electricity, magnetism, radioactivity etc. **Properties of minerals** Physical properties, chemical composition, and diagnostic Properties for the identification of minerals. Ore minerals and gangue minerals.	10	10
UNIT II	**Process of Mineral formation** Sedimentation – Evaporation-sublimation, Precipitation Oxidation and supergene sulphide enrichment residual deposits	10	10
UNIT III	**Geological and geographical distribution of following minerals deposit :-** Iron, Manganese, copper, lead zinc, bauxite, laterite, Barite, gypsum,	10	10
UNIT IV	**Geological and geographical distribution of following minerals deposit :-** Occurrence , Formation and distribution of Petroleum and natural gas and coal deposit	10	10
UNIT V	Tutorials, seminars and Assignments	05	10

Semester VI

	Course Code	Course Title	Teaching Time/Week	Credits	Scheme Of Examination			
					Max Marks	CIA	UA	Min Marks
Optional I (DSE-1B) Discipline Specific Elective	GEO-611	Applied Geology-I (Theory Paper-VII)	2 hours	2	50	10	40	20
	GEO-612	Applied Geology-II (Theory Paper-VIII)	2 hours	2	50	10	40	20
	GEO-621	Lab Course 5 (based on GEO-611	3 hours	1.5	50	10	40	20
	GEO-622	Lab Course 6 (based on GEO-612	3 hours	1.5	50	10	40	20
Skill Enhancement Course (SEC-4)	GEO-613	SEC-4 Any one skill to be chosen out of two SEC-4(G) Introduction to Remote Sensing and GIS SEC-2 (H) Soil and water conservation structure in watershed	2 hours	2	50	10	40	20
			15	9	250	50	200	100
Total Credits for Semester VI : 9 (Theory : 06 : Laboratory : 03)								
Total Credits for three years : Sem 1 (11.5) + Sem II (11.5) + Sem III (15) + Sem IV (15) + Sem V (09) + Sem VI (09) = 71 Credits								

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Bsc: T.Y.
Semester : VI
Subject: Geology
Paper : Skill Enhancement Course SEC-4(G)
Paper Name : SEC-4(G) Introduction to Remote Sensing and GIS

Sr. No	Topics	Total Periods	Marks
UNIT I	Definition of Remote sensing , EMR, Different bands of Light	10	10
UNIT II	Instruments Multi spectral camera, Multi spectral scanner, videcam, RADAR, SLAR, Drone, satellite.	10	10
UNIT III	Aerial Photographs, Imagery, Satellite Imaginary, stereoscope, FCC, MSS	10	10
UNIT IV	Application of Remote Sensing in Agriculture and Geological field	10	10
UNIT V	Tutorials, seminars and Assignments	05	10

Bsc: T.Y.
Semester : IV
Subject: Geology
Paper : Skill Enhancement Course SEC-2 (H)
Paper Name : SEC-2 (H) Soil and water conservation structure in watershed

Sr. No	Topics	Total Periods	Marks
UNIT I	Introduction to Watershed Physiographic Gradient (Slope),	10	10
UNIT II	Drainage Patterns, streams, influent, effluent, Recharge area, Run off surface area, storage capacity, springs, tributaries, river	10	10
UNIT III	Hydrological characters of rocks, Porosity ,Permeability, Specific yield, specific retention, hydraulic gradient, hydraulic conductivity, Specific retention Aquifers and there characteristics Aquifer, Aquifuse, Aquiclude, Aquitard.	10	10
UNIT IV	Soil and water engineering conservation structures Farm Ponds, Trench Cum Ponds, Trenches and Mounds, Gully Plugs, gabions, Percolation Tanks, storage Tanks, Mati nala bandh, check dams, CCT,KT- Wiers, Nala Bunding and Percolation Tanks.	10	10
UNIT V	Tutorials, seminars and Assignments	05	10