



গড়গাঁও মহাবিদ্যালয় GARGAON COLLEGE

**TEACHING PLAN
DEPARTMENT OF GEOLOGY
JULY 2023- JUNE 2024**



গড়গাঁও মহাবিদ্যালয়
GARGAON COLLEGE

NAME OF THE TEACHER: DR. CHANDRADITYA GOGOI
DESIGNATION: ASSISTANT PROFESSOR
SESSION: JULY - DECEMBER 2023

TEACHING PLAN OF
DR CHANDRADITYA GOGOI
(Odd Semester)

Session: 2023-2024

As per recommendation of DMC meeting dated 2nd August, 2023, the following teaching plan has been adopted for curriculum completion for the odd semester 2023.

Subject: GEOLOGY

Name of the Teacher: Dr. Chandraditya Gogoi

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.



UNIT WISE TIME PLANNING (THEORY)

(ODD SEMESTER 2023)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Lectures	Tutorial
1 ST SEM (NEP)	Basic Field Training	SEC121	UNIT 1: Orientation of Topographic maps in field, location, bearing, height and distance	10 hrs.	2 hrs.
			UNIT 2: Identification of rocks in the field, structures and textures, use of various field tools	8 hrs.	1 hr
			UNIT 3: Basic field measurement techniques, preparation of vertical profile	8 hrs.	2 hrs.
			UNIT 4: Field Work	25 hrs.	5 hrs.
3 RD SEM	IGNEOUS PETROLOGY	C5	UNIT 1: INTRODUCTION TO IGNEOUS PETROLOGY	2 hrs.	1 hr.
			UNIT 2: MAGMA AND LAVA	3 hrs.	1 hr.
			UNIT 3: THERMODYNAMIC CONSIDERATIONS	4 hrs.	1 hr.
			UNIT 4: EVOLUTION AND DIFFERENTIATIONS OF MAGMA	7 hrs.	1 hr.
			UNIT 5: IGNEOUS TEXTURE AND STRUCTURES	4 hrs.	1 hr.
			UNIT 6: IGNEOUS ROCKS AND PETROGENESIS	9 hrs.	1 hr.
5 TH SEM	SURVEYING AND MAPPING	DSE 2	UNIT 1: PRINCIPLES OF SURVEYING	6 hrs.	2 hrs.
			UNIT 2: SURVEYING AND LEVELLING	13 hrs.	2 hrs.
			UNIT 3: MAPPING	8 hrs.	2 hrs.
			UNIT 4: PROFILE SECTIONS	2 hrs.	2 hrs.



UNIT WISE TIME PLANNING (PRACTICAL)

(ODD SEMESTER 2023)

3 RD SEMESTER	IGNEOUS PETROLOGY	C5	PR.1: STUDY OF IGNEOUS ROCK IN HAND SPECIMENS PR.2: STUDY OF IGNEOUS ROCK IN THIN SECTION PR.3: STUDY OF TEXTURE IN THIN SECTION AND HANDSPECIMEN PR.4: STUDY OF PHASE DIAGRAMS TO UNDERSTAND MELTS COMPOSITIONS AND CRYSTALLIZATION	24 HOURS
5 TH SEMETER	SURVEYING AND MAPPING	DSE 2	PR.1: USE OF COMPASS, CHAIN, TAPE AND PLANE TABLE FOR PLANE SURVEYINGPR.2: USE OF GPS AND GIS FOR SURVEYING AND MAPPINGPR.3: CONSTRUCTION OF GEOLOGICAL MAPS PR.4: GEOLOGICAL MAP PROBLEMS PR.5: CONSTRUCTION OF GEOLOGICAL PROFILE SECTIONS FROM MAPS AND TRAVERSE SECTIONS	24 HOURS


Head of the Department
Department of Petrology
Gargaon College



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GARGAON COLLEGE

NAME OF THE TEACHER: DR. CHANDRADITYA GOGOI
DESIGNATION: ASSISTANT PROFESSOR
SESSION: JAN - JUNE 2024

TEACHING PLAN OF
DR. CHANDRADITYA GOGOI
(Even Semester)
Session: 2023-2024

As per recommendation of DMC meeting dated 17th January, 2024, the following teaching plan has been adopted for curriculum completion for the even semester 2024.

Subject: GEOLOGY

Name of the Teacher: Dr. Chandraditya Gogoi

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.



UNIT WISE TIME PLANNING (THEORY)

(EVEN SEMESTER 2024)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Lectures	Tutorial
2 nd SEM (NEP)	Mineralogy and Crystallography	C2	UNIT 1: Crystallography: Crystal characteristics, Crystal symmetry elements	18 hrs.	2 hrs.
			UNIT 2: Mineralogy : Mineral classification, Physical Properties, Atomic Substitutions	16 hrs.	2 hrs.
			UNIT 3: Optical Mineralogy : Nature of light, Ordinary and polarized light	6 hrs.	1 hr.
			UNIT 4 PRACTICALS: Identification of crystal models. Study of symmetry elements. Study of identification of rock forming	22 hrs.	Nil
4 TH SEMESTER	STRATIGRAPHIC PRINCIPLES AND STRATIGRAPHY OF INDIA	C9	UNIT 1: PRINCIPLES OF STRATIGRAPHY	6 hrs.	.2 hrs.
			UNIT 2: STRATIGRAPHIC NOMENCLATURE AND LAWS OF FACIES	8 hrs.	2 hrs.
			UNIT 3: STRATIGRAPHY OF INDIA	15 hrs.	2 hrs.
6 TH SEMESTER	GEOLOGY OF NORTHEAST INDIA	DSE 3	UNIT 1: PHYSIOGRAPHICAL OVERVIEW	4 hrs.	2 hrs.
			UNIT 2: STRATIGRAPHICAL OVERVIEWS	4 hrs.	2 hrs.
			UNIT 3: GEOLOGICAL FEATURES	12 hrs.	3 hrs.
			UNIT 4: ECONOMIC SIGNIFICANCE	2 hrs.	1 hr.
			UNIT 5: NATURAL HAZARDS AND DISASTERS	2 hrs.	1 hr.



UNIT WISE TIME PLANNING (PRACTICAL)

(EVEN SEMESTER 2024)

4TH SEMESTER	STRATIGRAPHIC PRINCIPLES AND INDIAN STRATIGRAPHY	C9	PR.1: STUDY OF GEOLOGICAL MAP OF INDIA AND IDENTIFICATION OF MAJOR STRATIGRAPHIC UNITS PR.2 : STUDY OF ROCKS IN HANDSPECIMENS FROM KNOWN INDIAN STRATIGRAPHIC HORIZONS PR.3: DRAWING VARIOUS PALEOGEOGRAPHIC MAPS OF PRECAMBRIAN TIME PR.4: STUDY OF DIFFERENT PROTEROZOIC SUPER CONTINENT RECONSTRUCTIONS	24 HOURS
6TH SEMESTER	EARTH AND CLIMATE	DSE 4	PR.1: STUDY AND IDENTIFICATION OF GEOMORPHIC FEATURES FROM IMAGE /PHOTO /SATELLITE IMAGERY PR.2: STUDY AND IDENTIFICATION OF GEOMORPHIC FEATURES FROM GEOMORPHIC MODELS PR.3: STUDY AND IDENTIFICATION OF GEOMORPHIC FEATURES FROM CONTOUR MAPS PR.4: DRAWING A PROFILE AND DISCUSSION OF GEOMORPHIC FEATURES FROM TOPOGRAPHICAL MAPS	24 HOURS


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GARGAON COLLEGE

NAME OF THE TEACHER: MS. BONIKA BURAGOHAIN
DESIGNATION: ASSISTANT PROFESSOR
SESSION: JULY - DECEMBER 2023

TEACHING PLAN OF
Ms. BONIKA BURAGOHAIN
Odd Semester
(Session 2023-2024)

As per recommendation of DMC meeting dated 2nd August, 2023, the following teaching plan has been adopted for curriculum completion for the odd semester 2023.

Subject: GEOLOGY

Name of the Teacher: MS. BONIKA BURAGOHAIN

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.




UNIT WISE TIME PLANNING (THEORY)
(ODD SEMESTER 2023)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Lecture s	Tutorial s
1 ST SEM	MINERALS, ROCKS AND ORES	GECGEO1 A	UNIT 1: MINERALS	12 hrs.	12 hrs.
			UNIT 2: ROCKS	15 hrs.	15 hrs.
			UNIT 3: ORES	12 hrs.	12 hrs.
			UNIT 4: USE OF ROCKS, MINERALS AND ORES IN DIFFERENT MINERAL INDUSTRIES, REFRACTORY, CERAMIC, CEMENT, FERTILIZER, CHEMICAL INDUSTRIES ETC.	6 hrs.	6 hrs.
3 RD SEM	SEDIMENTARY PETROLOGY	C6	UNIT 1: ORIGIN OF SEDIMENTS	4 hrs.	1 hr.
			UNIT 2: PROPERTIES OF SEDIMENTS AND SEDIMENTARY ROCKS	5 hrs.	1 hr.
			UNIT 3: CLASSIFICATIONS	2 hrs.	1 hr.
			UNIT 4: PROCESSES OF FORMATION OF SEDIMENTARY ROCKS	9 hrs.	1 hr.
			UNIT 5: DESCRIPTIVE SEDIMENTARY PETROLOGY	9 hrs.	1 hr.
5 TH SEM	FUEL GEOLOGY	DSE 1	UNIT 1: COAL	6 hrs.	1 hr.
			UNIT 2: COAL AS A FUEL	6 hrs.	1 hr.
			UNIT 3: PETROLEUM	6 hrs.	1 hr.
			UNIT 4: PETROLEUM RESERVOIRS AND TRAPS	6 hrs.	2 hrs.
			UNIT 5: OTHER FIELDS	5 hrs.	1 hr.



UNIT WISE TIME PLANNING (PRACTICALS)
(ODD SEMESTER 2023)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD
3 RD SEMESTER	SEDIMENTARY PETROLOGY	C6	PR.1: STUDY OF SEDIMENTARY ROCKS IN HAND SPECIMENS PR.2: STUDY OF SEDIMENTARY ROCKS IN THIN SECTIONS PR.3: STUDY OF TEXTURE IN THIN SECTIONS AND HAND SPECIMENS PR.4: GENERAL OVERVIEW ON DEPOSITIONAL CONDITIONS AND PROVENANCE FROM THE STUDY OF FRAME WORK , CEMENT AND MATRIX OF GIVEN SEDIMENTARY ROCK IN THIN SECTIONS	24 HOURS
5 TH SEMETER	FUEL GEOLOGY	DSE 1	PR.1: STUDY OF HAND SPECIMENS OF COAL PR.2: RESERVE ESTIMATION OF COAL PR.3: SECTION CORRELATION AND IDENTIFICATION OF HYDROCARBON PROSPECTS PR.4: PANEL AND FENCE DIAGRAMS	24 HOURS


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TEACHING PLAN OF
Ms. BONIKA BURAGOHAIN
Even Semester
(Session 2023-2024)

As per recommendation of DMC meeting dated 17th of January, 2024, the following teaching plan has been adopted for curriculum completion for the even semester 2024.

Subject: GEOLOGY

Name of the Teacher: MS. BONIKA BURAGOHAIN

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.



UNIT WISE TIME PLANNING (THEORY)

(EVEN SEMESTER 2024)


SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Tutorial	Practical
2 ND SEMESTER	EARTHQUAKE STUDIES	GECGEO2A	UNIT 1: TYPES OF ELASTICITY, GENERALIZED HOOKE'S LAW, DIFFERENT TYPES OF ELASTIC WAVES	11 hrs.	Nil
			UNIT: 2: EARTHQUAKES, CAUSES AND EFFECTS, VARIOUS MAGNITUDE AND INTENSITY SCALES, ELASTIC REBOUND THEORY.	11 hrs.	Nil
			UNIT3: CLASSIFICATION OF EARTHQUAKES, SEISMIMETERS, ANALYSIS OF SEISMOGRAMS, SEISMIC NETWORKS AND ARRAYS, EARTHQUAKE PREDICTION AND FORECASTING, BASICS OF PALEOSEISMOLOGY	14 hrs.	Nil
			UNIT 4: SEISMICITY AND SEISMOTECTONICS OF INDIA, SEISMIC HAZARD MAP OF INDIA.	09 hrs.	Nil
4 TH SEMESTER	PALAEONTOLOGY	C8	UNIT 1: INTRODUCTION TO PALEONTOLOGY	3 hrs.	1 hr.
			UNIT 2: FOSSIL NOMENCLATURE AND TAXONOMY	3 hrs.	2 hrs.
			UNIT 3: VERTEBRATE FOSSILS	4 hrs.	2 hrs.
			UNIT 4: INVERTEBRATE FOSSILS	10 hrs.	2 hrs.
			UNIT 5: PALAEOBOTANY	3 hrs.	2 hrs.
			UNIT 6: APPLICATION OF FOSSILS	3 hrs.	1 hr.
6 TH SEMESTER	ECONOMIC GEOLOGY, COAL AND PETROLEUM	C13	UNIT 1: INTRODUCTION TO ECONOMIC GEOLOGY	2 hrs.	1 hrs.
			UNIT 2: ORE GENESIS	7 hrs.	3 hrs.
			UNIT 3: MINERAL EXPLORATION	4 hrs.	2 hrs.
			UNIT 4: METALLIC AND NON-METALLIC ORES	4 hrs.	2 hrs.
			UNIT 5: COAL	4 hrs.	1 hr.
			UNIT 6: PETROLEUM	4 hrs.	2 hrs.



UNIT WISE TIME PLANNING

(PRACTICALS) (EVEN SEMESTER 2024)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD
2 ND SEMESTER	PALEONTOLOGY	GE2	PR.1: STUDY OF MODE OF PRESERVATION OF FOSSILS PR.2: STUDY OF DIAGNOSTIC MORPHOLOGICAL CHARACTERS, SYSTEMATIC POSITION & STRATIGRAPHIC AGE OF FOSSILS	24 HOURS
4 TH SEMESTER	PALEONTOLOGY	C8	PR.1: STUDY OF FOSSILS SHOWING VARIOUS MODES OF PRESERVATION PR.2: STUDY OF DIAGONESTIC MORPHOLOGICAL CHARACTERS, SYSTEMATIC POSITIONS, STRATIGRAPHIC POSITIONS AND AGE OF VARIOUS INVERTEBRATE, VERTEBRATE AND PLANT FOSSILS	24 HOURS
6 TH SEMESTER	ECONOMIC GEOLOGY, COAL AND PETROLEUM	C13	PR.1: MEGASCOPIC IDENTIFICATION OF ECONOMIC MINERALS PR.2: STUDY OF MICROSCOPIC PROPERTIES OF ORE MINERALS /RESERVOIR ROCKS LIKE/SOURCE ROCK SLIDES PR.3: ORE RESERVE ESTIMATION BY USING EXTENDED, INCLUDED AND CHANNEL METHOD OF ESTIMATION PR.4: PREPARATIONS OF MAPS: DISTRIBUTION OF IMPROTANT ORES AND OTHER ECONOMIC MINERALS IN INDIA	24 HOURS


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NAME OF THE TEACHER: DR. CHIRANTAN BHAGAWATI
DESIGNATION: ASSISTANT PROFESSOR
SESSION: JULY - DECEMBER 2023

TEACHING PLAN OF
DR CHIRANTAN BHAGAWATI

(Odd Semester)

Session: 2023-2024

As per recommendation of DMC meeting dated 2nd August, 2023, the following teaching plan has been adopted for curriculum completion for the odd semester 2023.

Subject: GEOLOGY

Name of the Teacher: Dr. Chirantan Bhagawati

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.



UNIT WISE TIME PLANNING (THEORY)


(ODD SEMESTER 2023)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Lectures	Tutorial
1 ST SEM (NEP)	Earth & Climate	MINGEO1	UNIT 1: Climate system: Forcing & response	10 hrs.	2 hrs.
			UNIT 2: Atmosphere - Hydrosphere	12 hrs.	3 hrs.
			UNIT 3: Orbital cyclicity and climate	14 hrs.	4 hrs.
			UNIT 4: Practical	15 hrs.	Nil
3 RD SEM	STRUCTURAL GEOLOGY & TECTONICS	GE3	UNIT 1: STRUCTURAL GEOLOGY	18 hrs.	2 hrs.
			UNIT 2: TECTONICS	14 hrs.	1 hr.
5 TH SEM	SURVEYING AND ENGINEERING GEOLOGY	C11	UNIT 1: INTRODUCTION TO SURVEYING	3 hrs.	1 hr.
			UNIT 2: PLANE SURVEYING	4 hrs.	2 hrs.
			UNIT 3: LEVELING	4 hrs.	2 hrs.
			UNIT 4: INTRODUCTION TO ENGINEERING GEOLOGY	3 hrs.	1 hr.
			UNIT 5: GEOTECHNICAL IDEA ABOUT ENGINEERING STRUCTURES	3 hrs.	2 hrs.



UNIT WISE TIME PLANNING (PRACTICALS)
(ODD SEMESTER 2023)

3 rd SEMESTER	STRUCTURAL GEOLOGY & TECTONICS	GE3	PR.1: STUDY OF STRUCTURAL MAPS PR.2: USE OF COMPASS PR.3: 3 POINTS PROBLEMS OF STRUCTURAL GEOLOGY PR.4: STEREO PROJECTIONS OF BEDS, FOLD, FAULT, LINEATION ETC.	24 HOURS
5 th SEMETER	SURVEYING AND ENGINEERING GEOLOGY	C11	PR.1: USE OF COMPASS FOR DETERMINING FORWARD , BACKWARD BEARING AND AZIMUTHS PR.2: USE OF GPS FOR DETERMINING LATITUDE , LONGITUDE AND ELEVATION VALUES PR.3: USE OF CHAIN, COMPASS AND PLANE TABLE FOR COMPUTATION OF AREA AND LAND PR.4: COMPUTATION OF RESERVOIR AREA , CATCHMENT AREA , RESERVOIR CAPACITY AND RESERVOIR LIFE PR.5: COMPUTATION OF RQD, RMR, AND 'Q'	24 HOURS


Head of the Department
Department of Geology
Gargaon College



NAME OF THE TEACHER: DR. CHIRANTAN BHAGAWATI
DESIGNATION: ASSISTANT PROFESSOR
SESSION: JAN - JUNE 2024

TEACHING PLAN OF
Dr. CHIRANTAN BHAGAWATI
Even Semester
(Session 2023-2024)

As per recommendation of DMC meeting dated 17th of January, 2024, the following teaching plan has been adopted for curriculum completion for the even semester 2024.

Subject: GEOLOGY

Name of the Teacher: Dr. Chirantan Bhagawati

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.



UNIT WISE TIME PLANNING (THEORY)
(EVEN SEMESTER 2024)


SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Tutorial	Practical
2 ND SEMESTER	GEOPHYSICS	MINGEO 2	UNIT 1: Geology & Geophysics	12 hrs.	3 hrs.
			UNIT: 2: Geophysical field operations	14 hrs.	4 hrs.
			UNIT3: Geophysical anomalies	10 hrs.	2 hrs.
			UNIT 4: Practical	15 hrs.	Nil
4 TH SEMESTER	GEOMORPHOLOGY, REMOTE SENSING & GIS	GE4	UNIT 1: GEOMORPHOLOGY	19 hrs.	1 hr.
			UNIT 2: REMOTE SENSING	9 hrs.	1 hr.
			UNIT 3: GEOGRAPHIC INFORMATION SYSTEM	8 hrs.	2 hrs.
6 TH SEMESTER	EARTH AND CLIMATE	DSE 4	UNIT 1: CLIMATE SYSTEM FORCING AND RESPONSE	4 hrs.	2 hrs.
			UNIT 2: HEAT BUDGET OF EARTH	4 hrs.	2 hrs.
			UNIT 3: ATMOSPHERE - HYDROSPHERE	4 hrs.	2 hrs.
			UNIT 4: RESPONSE OF BIOSPHER TO EARTHS'S CLIMATE	4 hrs.	2 hrs.
			UNIT 5: ORBITAL CYCLICITY AND CLIMATE	4 hrs.	2 hrs.
			UNIT 6: MONSOON	1 hr.	1 hr.



UNIT WISE TIME PLANNING

(PRACTICALS) (EVEN SEMESTER 2024)

4 TH SEMESTER	GEOMORPHOLOGY, REMOTE SENSING & GIS	GE4	PR.1: STUDY OF LANDFORMS FROM GIVEN GEOMORPHIC MODEL /IMAGE/MAP PR.2: INTERPRETATION OF AERIAL PHOTO/SATELLITE IMAGE	24 HOURS
6 TH SEMESTER	EARTH AND CLIMATE	DSE 4	PR.1: STUDY AND IDENTIFICATION OF GEOMORPHIC FEATURES FROM IMAGE /PHOTO /SATELLITE IMAGERY PR.2: STUDY AND IDENTIFICATION OF GEOMORPHIC FEATURES FROM GEOMORPHIC MODELS PR.3: STUDY AND IDENTIFICATION OF GEOMORPHIC FEATURES FROM CONTOUR MAPS PR.4: DRAWING A PROFILE AND DISCUSSION OF GEOMORPHIC FEATURES FROM TOPOGRAPHICAL MAPS	24 HOURS


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TEACHING PLAN OF
DR. DIPANKAR BURAGOHAIN

Odd Semester
(Session 2023-2024)

As per recommendation of DMC meeting dated 2nd of August, 2023, the following teaching plan has been adopted for curriculum completion for the Odd semester 2023.

Subject: GEOLOGY

Name of the Teacher: DR. DIPANKAR BURAGOHAIN

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.




UNIT WISE TIME PLANNING (THEORY)
(ODD SEMESTER 2023)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Lecture s	Tutorial s
1 ST SEM	Earth System Science	GEOC1	UNIT 1: Universe and the Solar System	12 hrs.	4 hrs.
			UNIT 2: Earth System	15 hrs.	5 hrs.
			UNIT 3: Introduction to Geology	18 hrs.	6 hrs.
			UNIT 4: Practical	30 hrs.	2 hrs.
3 RD SEM	Metamorphic Petrology	GEOH303T4 (C-7)	UNIT1: Introduction of Metamorphism	5 hrs.	1 hrs.
			UNIT 2: Thermodynamic Considerations in Metamorphism	4 hrs.	1 hrs.
			UNIT 3: Metamorphic Structure and Texture	9 hrs.	1 hrs.
			UNIT 4: Metasomatism and Migmatites	7 hrs.	1 hrs.
			UNIT 5: Descriptive Metamorphic Petrology	9 hrs.	1 hrs.
5 TH SEM	Surveying and Mapping	DSE-2 (GEOHDSE502BT4)	UNIT1: Principles of Survey	8 hrs.	3 hrs.
			UNIT 2: Surveying and Levelling	15 hrs.	9 hrs.
			UNIT 3: Mapping	10 hrs.	5 hrs.
			UNIT 4: Profile Section	4 hrs.	1 hr.



UNIT WISE TIME PLANNING (PRACTICALS)
(ODD SEMESTER 2023)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD
3 RD SEMESTER	Metamorphic Petrology	GEOH303P2 (C-7)	PR.1: Study of metamorphic rocks in hand specimens PR.2: Study of metamorphic rocks in thin sections PR.3: Study of texture in thin sections and hand specimens PR.4: Study of metamorphic phase diagrams	24 HOURS
5 TH SEMESTER	Surveying and Mapping	DHE 2 (GEOHDSE502BP2)	PR.1: Use of compass, chain, tape and plane table for plane surveying PR.2: Use of GPS and GIS for surveying and mapping PR.3: Construction of Geological Maps PR.4: Geological Map Problems PR.5: Construction of Geological Profile Sections from map and traverse sections	24 HOURS


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TEACHING PLAN OF
DR. DIPANKAR BURAGOHAIN
Even Semester
(Session 2023-2024)

As per recommendation of DMC meeting dated 17th of January, 2024, the following teaching plan has been adopted for curriculum completion for the even semester 2024.

Subject: GEOLOGY

Name of the Teacher: DR. DIPANKAR BURAGOHAIN

Methods to be applied: Lectures on theory and practical aspects, implementation of skill development and analytical activities, interaction and discussion focusing on development of critical thinking.

Teaching Materials: Laptop/PC Projector, Green/White Board, Chalk Pencil, Duster, Book, Journal, Newspaper, Magazine, Periodicals.




UNIT WISE TIME PLANNING (THEORY)
(EVEN SEMESTER 2024)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD	
				Tutorial	Tutorial
2 ND SEMESTER	Geological Mapping	SEC22 1	UNIT 1: Geological mapping, Identification and field documentation of primary (scalars and vectors) and secondary structures (linear and planar); Stratigraphic correlation	12 hrs.	4 hrs.
			UNIT 2: Trend, plunge, Rake/Pitch	8 hrs	2 hrs.
			UNIT3: Stereo plots of linear and planar structures, Orientation analyses	10 hrs	2 hrs.
			UNIT 4: Field work	30 hrs.	NA
4 TH SEMESTER	Hydrogeology and Oceanography	C10 (GEOH 403T4)	UNIT 1: Introduction to Hydrogeology	3 hrs.	1 hr.
			UNIT 2: Groundwater and Aquifers	8 hrs.	2 hrs.
			UNIT 3: Groundwater Exploration	7 hrs.	2 hrs.
			UNIT 4: Groundwater management	4 hrs.	1 hr.
			UNIT 5: Fundamentals of Oceanography	3 hrs.	2 hrs.
			UNIT 6: Marine Physics	5 hrs.	1 hr.
			UNIT 7: Marine geology	5 hrs.	1 hr.
6 TH SEMESTER	Remote Sensing, GIS and GPS	C14 (GEOH 602T4)	UNIT 1: Photo geology	2 hrs.	1 hrs.
			UNIT 2: Remote Sensing	12 hrs.	3 hrs.
			UNIT 3: Geographic Information System	13 hrs.	4 hrs.
			UNIT 4: GPS	5 hrs.	2 hrs.



UNIT WISE TIME PLANNING
(PRACTICALS) (EVEN SEMESTER 2024)

SEMESTER	SUBJECT	PAPER CODE	UNIT	DURATION/ WORK LOAD
4 TH SEMESTER	Hydrogeology and Oceanography	C10 (GEOH403P2)	PR.1: Aerial Photo/Satellite Imagery interpretation, identification of sedimentary, igneous and metamorphic rocks and various aeolian, glacial, fluvial and marine landforms PR.2: STUDY OF DIAGONESTIC MORPHOLOGICAL CHARACTERS, SYSTEMATIC POSITIONS, STRATIGRAPHIC POSITIONS AND AGE OF VARIOUS INVERTEBRATE, VERTEBRATE AND PLANT FOSSILS	24 HOURS
6 TH SEMESTER	Remote Sensing, GIS and GPS (Practical)	C14 (GEOH602P2)	PR.1: Aerial Photo/Satellite Imagery interpretation, identification of sedimentary, igneous and metamorphic rocks and various aeolian, glacial, fluvial and marine landforms PR.2: DEM analysis: generating slope map, aspect map and drainage network map and its applications PR.3: GPS mapping	24 HOURS


Head of the Department
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