माँ शाकुम्भरी विश्वविद्यालय, सहारनपुर
Maa Shakumbhari University, Saharanpur

UG

Geography Syllabus

B.A /HONOURS/HONOURS WITH RESEARCH

FYUP

Convenor Geography

w.e.f 2024-25

MAA SHAKUMBHARI UNIVERSITY
SAHARANPUR

GRADUATE

AsperNationalEducationPolicy-2020

GEOGRAPHY SYLLABUS

B.A./B.Sc

(FYUGP)

(Session 2024-25 onwards)

B.A./B.Sc.inGeography

PROGRAMME SPECIFIC OUTCOMES (PSOs)-

PO1: Apply knowledge of Geography in all the fields of learning including higher research and its extensions.

PO2: Innovate, invent and solve complex environment (physical and social) problems using the knowledge of pure and applied Geography.

PO3: Provide opportunities in higher education and development on the professional from. It also gives the opportunity for career advancement in teaching, research and industries.

PO4: Integration of Interdisciplinary thinking and practice

PO5: Analyse a problem identify and define the computing requirements with respect to organizational factors appropriate of its solution and plan strategies for their solution.

PO6: Design, implement and evaluate information system, processes, components, or programs and source cost-benefit efficient alternatives to meet desired needs, goals and constraints.

PO7: Deploy and use effective skills, tools, and techniques necessary for information systems practice.

PO8: Most importantly, the program inculcates among the students the higher values which enable them to withstand the challenges of life.

PO9: Deploy and use effective skills, tools, and techniques necessary for information systems practice.

PO10: Effectively communicate about their field of expertise on their activities, with their peer and society at large. such as being able to comprehend and write effective reports and design documentation.

PO11: To improve your own learning and performance.

PO12: To develop abstract geography thinking.

PO13: To acquaint the students the importance and role of geography in various sectors like social, economic planning and development.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

PO1: After successful completion of this program, the students would be able to apply knowledge of geography in all the fields of learning including higher research and its extensions.

PO2: To provide students with knowledge and capability in formulating and analysis of geographical models of real life applications.

PO3: To provide comprehensive curriculum to groom the students into qualitative scientific manpower.

PO4: Carry out development work as well as take up challenges in the emerging areas of the industry.

PO5: Demonstrate competence in using statistical and computational skills to model, formulate and solve real life applications.

PO6: To provide students with a knowledge abilities and insight in geography and computational techniques so that they are able to work as geographical professional.

PO7: Crack lectureship and fellowship exams approved by UGC like CSIR – NET and SET/ISRO/DRDO.

PO8: Victorious in getting employment in different areas, such as industries laboratories. Banks Insurance Companies, Educational/Reasearch institutions, Administrative positions, since the impact of the subject concerned is very wide.

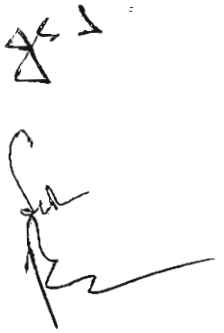
PO9: Encourage personality development skills like time management, crisis management, stress interviews and working as a team.

PO10: To develop problem solving skills and apply them independently to problems in pure and applied geography.

PO11: To assimilate complex geographical ideas and arguments.

PO12: To improve your own learning and performance.

PO12: To develop abstract geography thinking.



MAASHAKUMBHARIUNIVERSITYSAHARANPUR

Semester-wiseTitlesofthePapersin BA(Geography)

Year	Sem.	Course Code	NEPCode	PaperTitle	Theory/ Practical	Credits
1stYearCertificate						
1	I	0111101	A110101T	PhysicalGeography	Theory	4
1	I	0111180	A110102P	ElementsofMapand Surveying	Practical	2
1	II	0211101	A110201T	HumanGeography	Theory	4
1	II	0211180	A110202P	ThematicMappingand Surveying	Practical	2
2ndYearDiploma						
2	III	0311101	A110301T	Environment DisasterManagementand ClimateChange	Theory	4
2	III	0311180	A110302P	StatisticalTechniquesand Surveying	Practical	2
2	IV	0411101	A110401T	EconomicGeography	Theory	4
2	IV	0411180	A110402P	WeatherMaps,Geological Mapsand Surveying	Practical	2
3rdYearDegree						
3	V	0511101	A110501T	RegionalGeography (North East Asia)	Theory	4
3	V	0511102	A110502P	BasicsofRemoteSensingand GIS	Theory	4
3	V	0511160	A110503R	Tour/ Field report	Practical	2
3	V	0511165	A110504R	ProjectReport-1	Practical	4
3	VI	0611101	A110601T	GeographyofIndia	Theory	4
3	VI	0611102	A110602T	EvolutionofGeographical Thoughts	Theory	4
3	VI	0611180	A110603P	RemoteSensingandGIS	Practical	2
3	VI	0611165	A110604R	ProjectReport-2	Practical	4

MAA SHAKUMBHARI UNIVERSITY, SAHARANPUR
EFFECTIVE FROM 2024-25
B.A. Honours with Research – (SEMESTER–VII) Geography as per NEP 2020

YEAR	SEMESTER	COURSE CODE	CORE/ ELECTIVE/ VALUE ADDED	NEP Code	NEP CODE	PAPER TITLE	THEORY/ PRACTICAL PROJECT	CREDITS	INTERNAL MARKS	EXTERNAL MARKS (Min. Marks)	TOTAL MARKS	MINIMUM MARKS (INT.+ EXT.)	TEACHING HOURS THEORY + TOTORIAL	
YEAR-4 AS PER NEP / YEAR-I	SEMESTER-VII ASPER NEP-2020/SEMESTER-I	I	CORE COMPULSORY		0711121	NATURAL RESOURCE MANAGEMENT	THEORY	4	25	75 (25)	100	40	60	15
		II	CORE COMPULSORY		0711122	HISTORY OF GEOGRAPHICAL THOUGHT	THEORY	4	25	75 (25)	100	40	60	15
		III	CORE COMPULSORY		0711123	ADVANCED GEOGRAPHY OF INDIA (PHYSICAL AND REGIONAL)	THEORY	4	25	75 (25)	100	40	60	15
		Any One of the following												
		IV	CORE ELECTIVE		0711124	GEOMORPHOLOGY	THEORY	4	25	75 (25)	100	40	60	15
		V	CORE ELECTIVE		0711125	BIO-GEOGRAPHY	THEORY	4	25	75 (25)	100	40	60	15
		VI	CORE ELECTIVE		0711126	GEOGRAPHY OF WATER RESOURCES	THEORY	4	25	75 (25)	100	40	60	15
		VII	CORE ELECTIVE		0711165	PROJECT-I	OPTIONAL	4		100	100	40		60
		VIII	CORE COMPULSORY		0711180	STATICAL TECHNIQUES IN GEOGRAPHY	PRACTICAL	4		100	100	40		60

Note : First Three Theory Papers are compulsory and one theory paper from IV, V or VI course can be offered as a optional. No internal exam in Practical

शासनादेश संख्या– 2090/77–3–24–09(01) दिनांक 02.09.2024 के अनूरूप राष्ट्रीय शिक्षा नीति–2020 को कतिपय संशोधन के साथ शैक्षणिक सत्र 2024–25 से लागू से लागू किया गया है, जिसके अनुसार, ऐसे विद्यार्थी जिन्होंने प्रथम 06 सेमेस्टर (स्नातक त्रिवर्षीय) में न्यूनतम 75 प्रतिशत अंक प्राप्त किये हैं वह स्नातक चतुर्थ वर्ष अथवा स्नातकोत्तर प्रथम वर्ष के दोनों सेमेस्टर्स में विद्यार्थी चार–चार क्रेडिट के दो कोर्स के स्थान पर एक शोध परियोजना ले सकता है। यह शोध परियोजना एक सप्तम एवं एक अष्टम सेमेस्टर के थ्योरी कोर्स के स्थान पर लेनी होगी ना कि किसी एक सेमेस्टर के दो कोर्स के स्थान पर। स्नातक चतुर्थ वर्ष में शोध सहित उत्तीर्ण होने वाले विद्यार्थी को स्नातक (मानद शोध सहित) की उपाधि दी जाएगी।

नोटः– पेपर नं0 I II III एवं VIII सभी छात्रों के लिये अनिवार्य रहेगें। यदि छात्र/छात्रा के बी0ए0 तीनों वर्षों में 75 प्रतिशत अथवा उससे अधिक अंक प्राप्त होते है और यदि वह इच्छुक है तो वह प्रोजेक्ट का पेपर VII ले सकते है अन्यथा उसे पेपर संख्या IV V VI में से कोई एक पेपर लेना होगा। यदि छात्र/छात्रा प्रोजेक्ट का पेपर लेना है तो उन्हे बी0ए0 आनर्स रिर्सच सहित डिग्री दी जायेगी। अन्यथा छात्र/छात्रा को केवल बी0ए0 आनर्स की डिग्री ही दी जायेगी।

MAA SHAKUMBHARI UNIVERSITY, SAHARANPUR
SYLLABUS M.A. (GEOGRAPHY)SEMESTER –II
EFFECTIVE FROM 2024-25
B.A. Honours with Research – (SEMESTER–VIII) Geography as per NEP 2020

YEAR	SEMESTER	COURSE CODE	CORE /ELECTIVE/ VALUE ADDED	NEP Code	CODE	PAPER TITLE	THEORY/ PRACTICAL PROJECT	CREDITS	INTERNAL MARKS	EXTERNAL MARKS (Min. Marks)	TOTAL MARKS	MINIMUM MARKS (INT.+ EXT.)	TEACHING HOURS THEORY + TOTORIAL	
YEAR-4 AS PER NEP / YEAR-I	SEMESTER-VIII ASPER NEP-2020/SEMESTER-II	IX	CORE COMPULSORY		0811121	CLIMATOLOGY AND OCEANOGRAPHY	THEORY	4	25	75 (25)	100	40	60	15
		X	CORE COMPULSORY		0811122	GEOGRAPHY OF RURAL SETTLEMENTS	THEORY	4	25	75 (25)	100	40	60	15
		XI	CORE COMPULSORY		0811123	ADVANCED GEOGRAPHY OF INDIA (SOCIO AND ECONOMIC)	THEORY	4	25	75 (25)	100	40	60	15
		Any One of the following												
		XII	ELECTIVE		0811124	REGIONAL PLANNING AND DEVELOPMENT	THEORY	4	25	75 (25)	100	40	60	15
		XIII	ELECTIVE		0811125	GEOGRAPHY OF TRANSPORT	THEORY	4	25	75 (25)	100	40	60	15
		XIV	ELECTIVE		0811126	POLITICAL GEOGRAPHY	THEORY	4	25	75 (25)	100	40	60	15
		XV	OPTIONAL		0811165	PROJECT-II (PROJECT-I+PROJECT-II)	OPTIONAL	8		100	100	80		120
		XVI	CORE COMPULSORY		0811180	ADVANCE CARTOGRAPHY	PRACTICAL	4		100	100	40		60

Note : First Three Theory Papers are compulsory and one theory paper from XII, XIII, XIV course can be offered. No Internal Exam in Practical .

शासनादेश संख्या– 2090/77–3–24–09(01) दिनांक 02.09.2024 के अनूरूप राष्ट्रीय शिक्षा नीति–2020 को कतिपय संशोधन के साथ शैक्षणिक सत्र 2024–25 से लागू से लागू किया गया है, जिसके अनुसार, ऐसे विद्यार्थी जिन्होंने प्रथम 06 सेमेस्टर (स्नातक त्रिवर्षीय) में न्यूनतम 75 प्रतिशत अंक प्राप्त किये हैं वह स्नातक चतुर्थ वर्ष अथवा स्नातकोत्तर प्रथम वर्ष के दोनों सेमेस्टर्स में विद्यार्थी चार–चार क्रेडिट के दो कोर्स के स्थान पर एक शोध परियोजना ले सकता है। यह शोध परियोजना एक सप्तम एवं एक अष्टम सेमेस्टर के थ्योरी कोर्स के स्थान पर लेनी होगी ना कि किसी एक सेमेस्टर के दो कोर्स के स्थान पर। स्नातक चतुर्थ वर्ष में शोध सहित उत्तीर्ण होने वाले विद्यार्थी को स्नातक (मानद शोध सहित) की उपाधि दी जाएगी।

नोटः– पेपर नं0 I II III एवं VIII सभी छात्रों के लिये अनिवार्य रहेगें। यदि छात्र/छात्रा के बी0ए0 तीनों वर्षों में 75 प्रतिशत अथवा उससे अधिक अंक प्राप्त होते है और यदि वह इच्छुक है तो वह प्रोजेक्ट का पेपर VII ले सकते है अन्यथा उसे पेपर संख्या IV V VI में से कोई एक पेपर लेना होगा। यदि छात्र/छात्रा प्रोजेक्ट का पेपर लेना है तो उन्हे बी0ए0 आनर्स रिर्सच सहित डिग्री दी जायेगी। अन्यथा छात्र/छात्रा को केवल बी0ए0 आनर्स की डिग्री ही दी जायेगी।

MEMBERS, BOARD OF STUDIES (GEOGRAPHY)

MAA SHAKUMBHARI UNIVERSITY, (PUNWARKA) SAHARANPUR

Sr. No.	Name	Designation	College/University	Signature
1.	Dr. Jyoti Singh	Convener	J.V. Jain College, Saharanpur	
2.	Dr. VandanaTyagi	Member	S.D. College, Muzffarnagar	
3.	Dr. Praveen Kumar	Member	S.D. College, Muzffarnagar	
4.	Prof. S.K Singh	Subject Expert	DDU Gorakhpur	
5.	Prof. Ravi S.Singh	Subject Expert	BHU Varanasi	
6.	Dr. S.C. Bansal	Subject Expert	(Retd.) J.V. Jain College, Saharanpur	

SCHOOL OF ARTS SCIENCE GEOGRAPHY
MAA SHAKUMBHARI UNIVERSITY, SAHARANPUR

VISION OF THE SCHOOL

To produce such academician with morality global competence, vision and skilled as are necessary to meet the challenges of emerging global knowledge, economy by the power of innovation creativity and efficient learning ability

MISSION OF THE SCHOOL

To emerge among the top institution in India within next ten years though applicability, humanity, implementing and operating dynamic-academic, administrative and functional process for optimal use of available resources.

ABOUT THE SCHOOL OF SCIENCE GEOGRAPHY

The School of Geography is going to establish with the objective of promoting post graduate studies and research in Geography is the base of all sciences therefore the importance of geography in any curriculum is self-evident. This is the single subject that is being used by all other disciplines, that is why its growth over the years has been phenomenal. In view of this Geography at Post Graduate level, is one of the subjects, which is going to introduce in the University since inception M.Sc./M.A. were also started from the academic session 2021-22 under graduation program (B.Sc./B.A.) under NEP2020 has already been started

VISION

- Vision of the School of Science Geography University Campus and affiliated Colleges is to create a community of Geographical learning by promoting outstanding teaching. Indian knowledge system (KS) deep understanding and creating global centre of excellence in research for the growth of the Nation and Humanity.
- To achieve high standards of excellence in generating and propagating knowledge in Geography.
- To provide sustainable environment of the students and researchers who can learn, teach, become innovator and use of Geography for society and humanity

MISSION

- To provide an effective teaching learning process
- To impart world-class education in an environment of fundamental and applied research in Geography.
- To emerge as a global centre of digital learning, academic excellence and innovative research.
- To include innovative skills, teamwork and ethical practices among students so as to meet social expectations.
- To provide quality education for higher studies and competitive like CSIR-UGC, JRF/NET, GATE, SLET, Civil Services, Scientist and research programme.

BA 1st Year, Certificate Course
Semester-I
Course I
(Theory)

ProgrammeClass: Certificate/BA	**Year:First**	**Semester:First**
Subject:Geography		
CourseCode:0111101	CourseTitle:**PhysicalGeography**	

Courseoutcomes:Studentswillbeabletounderstand

- TheEarthgeomorphictransition frombeginningtopresentDay
- Platetectonicsandrelatedmovements
- Landformscarvedbyvariousagents oferosion
- Earth'sclimateandthose factorsthatinfluenceit
- Oceanssystemand biogeographyof theworld.

Credits:4	CoreCompulsory
Max.Marks: 25+75	Min.PassingMarks: 40
TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):L-4/w	

Unit	**Topics**	**No. ofLectures**
I	NatureandScopeofPhysicalGeography,OriginofEarth(BigBangTheoryandIndian Concepts).InterioroftheEarth,Rocks	8
II	OriginofContinentsandOceans,isostasy,EarthquakesandVolcanoes,ContinentalDrifttheory,ConceptofPlateTectonics	8
III	Folding,Faulting,Denudation,CycleofErosionbyDavisandPenck.	8
IV	Fluvial,Karst,AeolianandGlacial Landforms	8
V	Composition and Structure of atmosphere, Insolation,Atmosphericpressureand winds.	8
VI	Airmasses,cyclonesandanti-cyclones,Humidity,condensationsprecipitationand rainfalltypes.	7
VII	OceanBottoms,Oceandeposits,salinity.CirculationofOceanwater-Waves,CurrentsandTides,Coral reefsandit'stype.	7
VIII	Biosphere:MeaningandConcept,componentsOfBiosphere	6

SuggestedReadings:

1. Singh,Savindra(2018). PhysicalGeography(Eng./Hindi)Allahabad,PrayagPustak.
2. Haggett,R.J.(2007): *FundamentalsofGeomorphology,NewYork,U.S.A.Routledge.*
3. *Khullar,*D.R.(2012).PhysicalGeography.NewDelhi, India:KalyaniPublishers.
4. Strahler,A.H.andStrahler,AN.(2001):ModernPhysicalGeography(4/E).NewYork, U.S.A.: John Wileyand Sons,Inc.
5. Thornbury,W.D.(2004):PrinciplesofGeomorphologyNewYork,U.S.A. Wiley.
6. AlkaGautam:BhautikBhugol.RastogiPublications,Meerut.
7. Bansal,S.C.,PankajChauhan:(2019)BhautikBhugol,MeenakshiPrakashan,Meerut.

Thiscoursecan beoptedas an electivebythe students of followingsubjects:Open forall

SuggestedContinuousEvaluationMethods:
Assignment/Test /Quiz(MCQ)/Seminar/ Presentations

Suggested equivalent online courses:https://onlinecourses.swayam2.ac.in/cec21hs03/ previewhttps://onlinecourses.swayam2.ac.in/nos20sc25/ preview

BA 1st Year

Semester-I

CourseII

(Practical)

Programme/Class: Certificate/BA	**Year:First**	**Semester:First**
Subject:Geography		
CourseCode:0111180	CourseTitle: **Elementsof MapandSurveying**	
CourseLearningOutcomes Oncompletionofthiscourse,learnerswillbeableto: • Understandthebasicideaof Map, ScaleandTopographicsheets		
Credits:2	CoreCompulsory	
Max.Marks: 100	Min.PassingMarks: 40	
TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):P-2/w		

Unit	**Topics**	**No. ofLectures**
I	Cartography:-Natureand Scope. Scales-Conceptandapplication;GraphicalConstructionofPlain,Comparative,Diagonaland Vernierscales	7
II	MapProjections:-Classification,PropertiesandUses;GraphicalConstruction of Polar Zenithal, Cylindrical Equal Area, Bonne'sandMercator's Projections,	7
III	Topographical Map:- Coverage, Scale and Topo Symbol.InterpretationSurveyof IndiaToposheets.Representationoflandforms byContours.	8
IV	Basics of Surveying:-Surveying: meaning, Plane TableSurveyingByIntersectionandresection(onlyonemethod).	8

SuggestedReadings:

1. Monkhouse,F.J.andWilkinson,F.J.(1985):MapsandDiagrams.Methuen,London
2. Raisz,E.(1962):GeneralCartography.JohnWileyandSons,NewYork.5thedition.
3. Sarkar,A.K.(1997):PracticalGeography:ASystematicApproach.OrientLongman,Kolkata.
4. Sharma,J.P.(2001):PrayogikBhugol..RastogiPublication.Meerut3rd.edition.

5. Singh,R.L.andSingh,RanaP.B.(1993):ElementsofPracticalGeography.(HindiandEnglish editions). Kalyani Publishers, New Delhi. 6. Singh,L.R.(2006):FundamentalsofPracticalGeography,ShardaPustakBhawan.Allahabad.
Thiscoursecan beoptedas an electivebythe students of followingsubjects:Open forall
Note: InFinalExaminationStudentshallbeexaminedbyexternalandinternalexaminers.Marks Distribution: Written Exam. Viva. Practical File, Map Preparation, Topo sheetinterpretation.
FiveQuestionsaretobeattemptedWrittenTest– 60 **Viva-voice–20** **Record–Work(file)–20**

BA1stYear
Semester-
IICourse
I(Theory)

ProgrammeClass: Certificate/BA	**Year:First**	**Semester:Second**
Subject:Geography		
CourseCode:0211101	CourseTitle:**HumanGeography**	

CourseLearningOutcomes:
Oncompletionofthiscourse,learnerswillbeableto:

- TounderstandtheConcept,Nature.MeaningandScopeofHumanGeography.
- TounderstandthenaturalandCulturalChangesinandaroundtheHumanEnvironsandtheirinterrelationship

Credits:4	CoreCompulsory
Max.Marks:-25+75	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):L-4/w

Unit	**Topics**	**No. ofLectures**
I	ConceptandNature,MeaningandScopeof HumanGeography.	7
II	ManandEnvironmentrelationship-Determinism,Possibilism,andNeo-determinism	7
III	Population- Distribution and pattern, global migration - causesandconsequences,conceptofover-populationandunder-population.	7
IV	HumanSettlements:Origin,typesandpattern(RuralUrban)characteristics, House types and their distribution with specialreferencetoIndia.	7
V	PrimitiveEconomies-Foodgathering,Hunting,Pastoralherding,Fishing, LumberingandPrimitiveagriculture, Agriculturetypes	8
VI	CulturalRegions,Race, Religioninreferenceto India	8
VII	WorldTribes:Eskimos,Khirghiz,Bushmen,Pygmies.	8
VIII	Indian Tribes:Tharus,Bhil,Santhal,Nagas.	8

SuggestedReadings:

1. Chisholm,M.(1985):HumanGeography,2nd edition,PenguinBooks, London.
2. BNSingh(2019)ManavBhugolkaSwaroop,PravalikaPublication,Allahabad.
3. Hussain,M.(1994):HumanGeography,RawatPublications,Jaipur.
4. BNSingh (2021)ManavevamArthikBhugol,PravalikaPublication,Allahabad
5. Kaushik,S.D.andSharma,A.K.(1996):PrinciplesofHumanGeography(inHindi),Rastogi publication, Meerut.
6. Norton,W. (2008): Human Geography, OxfordUniversityPress, New York 5thed.
7. Singh,L.R.(2005):FundamentalsofHumanGeography,ShardaPustakBhawan,Allahabad .
8. Smith,D.M.(1977):HumanGeography-AWelfareApproach,EdwardArnold(publishers) Ltd.,London
9. Stoddard,R.H.,Wishart,D.j.andBlouet,B.W.(1986):HumanGeography.Prentice-Hall,Englewood Cliffs, New Jersey.
10. Johnston,R.J.,Gregory,D., Pratt,G. andWatts,M.(2009): TheDictionaryof HumanGeography.5thedition,basilBlackwell Publishers, Oxford.
11. S.C.Bansal.,(2018)Manav Bhugol,4th editionMeanakshi Prakashan,Meerut.
12. Dr.ChaturbhujMamoria, ManavBhugol,Sahitya Publication

Thiscoursecan beoptedas an electivebythe students of followingsubjects:Openforall

SuggestedContinuousEvaluationMethods:
Assignment/Test /Quiz(MCQ)/Seminar/ Presentations

Suggestedequivalentonlinecourses:
Courses on Swayam /
MOOCshttps://onlinecourses.swayam2.ac.in/nou20hs18/
preview

BA 1st YearSemester-IICourse II(Practical)

Program/Class: Certificate/BA	Year:First	Semester:Second
Subject:Geography		
CourseCode:0211180	CourseTitle:**ThematicMapping andSurveying**	

CourseLearningOutcomes
Oncompletionofthiscourse,learnerswillbeableto:

- Understandthebasicideaof Map.ScaleandTopographicsheets

Credits:2	CoreCompulsory
Max.Marks: 100	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):P-2/w

Unit	Topics	No. ofLectures
I	Maps- Classification and Types, Diagrammatic DataPresentation –Line, Bar and Circle.	7
II	ThematicMappingTechniques– Properties,UsesandLimitations:Choropleth,Dot–Isopleths,Map Techniques	7
III	Cartographic Overlays – Point, Line, thematic Maps-PreparationandInterpretation.	8
IV	Instrumental Survey : Prismatic Compass–IntersectionMethod	8

SuggestedReadings:

1. Monkhouse,F.J.andWilkinson,F.J.(1985):MapsandDiagrams.Methuen,London
2. Raisz,E.(1962):GeneralCartography.JohnWileyandSons,NewYork.5thedition.
3. Singh,R.L.andSingh,RanaP.B.(1993): Elementsof PracticalGeography.(Hindiand English editions).Kalyani Publishers,NewDelhi.
4. Singh,L.R.(2006):FundamentalsofPracticalGeography,ShardaPustakBhawan,Allahabad.
5. Sharma,J.P.(2016):PrayogatmakBhugolKiRooprekha,RastogiPublication,Meerut

Note: InFinalExaminationStudentshallbeexaminedbyexternalandinternalexaminers.Marks Distribution:WrittenExam(60).Viva(20).PracticalFile,MapPreparation.(20)

MAASHAKUMBHARIUNIVERSITYSAHARANPUR

Semester-wiseTitlesofthePapersinBA (Geography)

Year	Sem.	Course Code	NEPCode	PaperTitle	Theory/ Practical	Credits
2nd YearDiploma						
2	III	0311101	A110301T	Environment DisasterManagementand ClimateChange	Theory	4
2	III	0311180	A110302P	StatisticalTechniquesand Surveying	Practical	2
2	IV	0411101	A110401T	EconomicGeography	Theory	4
2	IV	0411180	A110402P	WeatherMaps,Geological Mapsand Surveying	Practical	2

BA 2nd Year,Semester-IIICourse I(Theory)

Programme/Class: Diploma/BA	Year:Second	Semester:Third
Subject: Geography		
CourseCode:0311101	Course Title: **Environment, Disaster Management andClimateChange**	

CourseLearningOutcomes: Students willbeabletounderstand

- Thecourseaimistogivebasicunderstandingofconcept Environment,ClimateChange and Disaster Management.
- Understandingoftheconceptofappraisalandconservationof EnvironmentandNatural Resources.
- Itwillhelpindevelopingunderstandingaboutvarious ImpactsofClimateChange.
- Thiscourseshallintroducethebasic conceptsrelated todisasterManagement.
- ThispapershallhelpinunderstandingGlobaleffortinfieldofdisastermanagement.

Credits:4	CoreCompulsory
Max.Marks:-25+75	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):L-4/w

Unit	Topics	No.of Lectures
I	Concepts&componentsofEnvironment,Ecologyandecosystem.	8
II	Bio-diversityanditsconservation,sustainabledevelopment.	8
III	Deforestation,soilerosion,soilexhaustion,Desertification,Airpollution, waterpollution Disposalofsolid waste.	8
IV	GangaActionPlan,Tigerproject,Tehridam&NarmadaValleyproject.	8
V	ScienceofClimateChange:UnderstandingClimateChange;GreenHouseGases andGlobal Warming.	8

VI	Global Climatic Assessment - IPCC. Impacts of ClimateChange, NationalActionPlanonClimateChange.	7
VII	Disasters, Hazards, Risk, Vulnerability, Types of Disasters-Naturaland Man-made	7
VIII	ChemicalandNuclearDisasters.Do'sandDon'tsDuring Disasters.Covid -19Disaster	6

SuggestedReadings:

1. Singh,R.B.(1993)EnvironmentalGeography. Delhi, India:HeritagePublishers.
2. UNEP.(2007).GlobalEnvironmentOutlook:GEO4:EnvironmentForDevelopment, United Nations Environment Programme. UK: University Press,Cambridge.
3. GovernmentofIndia.(2011).DisasterManagementinIndia.Delhi,India:Ministryon HomeAffairs.
4. Singh,Savendra(2019)Pryavaran Bhugol,PravalikaPublication,Allahabad.
5. Kapur, A. (2010). Vulnerable India: A Geographical Study of Disasters. Delhi,India.SagePublication.
6. Singh,Savendra(2019)ApadaPrabandhan,PravalikaPublication,Allahabad.
7. Ramkumar, M. (2009). Geological Hazards: Causes, Consequences and MethodsofContainment. NewDelhi,India:NewIndiaPublishingAgency.
8. Climate Change: Understanding Climate Change; Green House Gases and GlobalWarming;Global Climatic Assessment-IPCC
9. ClimateChangeandVulnerability:PhysicalVulnerability;EconomicVulnerability,Social Vulnerability.
10. Government of India. (2008). Vulnerability Atlas of India. New Delhi, India:BuildingMaterials&TechnologyPromotionCouncil,MinistryofUrbanDevelopment,Government ofIndia
11. Modh,S.(2010).ManagingNaturalDisaster:Hydrological,MarineandGeologicalDisasters.Delhi,India: Macmillan.
12. BansalSC,(2019)Prayavarnekadhyan,MeenakshiPublication,Meerut.
13. AlkaGautam,Prayavarn Bhugol,ShardaPustak Bhawan,Allahabad
14. Ganesh Pathak (2022): Prayavaran Apda Prabandhan, Jalvayu Parivartan: RajeshPublications,Delhi.

Thiscoursecan beoptedas an electivebythe students of followingsubjects:Open forall

SuggestedContinuousEvaluationMethods:
Assignment/Test /Quiz(MCQ)/Seminar/ Presentations

Suggestedequivalentonlinecourses:
https://onlinecourses.swayam2.ac.in/aic19_ge05/preivewhttps://onlinecourses.swayam2.ac.in/nou21_bt03/preview

BA 2nd Year,Semester-IIICourse II(Practical)

Programme/Class: Diploma/BA	Year:second	Semester:Third
Subject:Geography		
CourseCode:0311180	CourseTitle:**StatisticalTechniquesandSurveying**	

CourseOutcomes: Studentswill be ableto understand

- Todifferentiatebetween qualitativeandquantitativeinformation.
- Tounderstandthenatureofvarious data.
- Tounderstandsamplingmethods fordatacollection.
- Topresentdatathrough graphicalanddiagrammaticformats.
- To usetheconcept of probabilitymainlythenormal distribution.

Credits:2	CoreCompulsory
Max.Marks: 100	Min.PassingMarks: 40

TotalNo of Lectures-Tutorials-Practical(inhoursperweek):P-2/w

Unit	Topics	No. ofLectures
I	UseofdatainGeography:SignificanceofStatisticalMethodsinGeography;SourcesofData,TypesofData	8
II	TabulationandDescriptiveStatistics:FrequencyDistributionTableandTabulation,GraphicalPresentationofData(Bardiagram,Histograms,FrequencyandCumulativeFrequency Curves),Measurement of Central Tendencies (Mean, Median andMode),Dispersion, Standard deviation.	8
III	MethodofSampling, Correlation(RankCorrelation).	7
IV	ApplicationofStaticalmethodsinSocio-economic Survey.	7

SuggestedReadings:

1. BerryB.J.L. andMarble D.F.(eds.):SpatialAnalysis–AReaderinGeography.
2. EbodonD.,1977:StatisticsinGeography:APracticalApproach.
3. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication,NewYork

4. Sharma,J.P.(2001):Prayogatmak Bhugol,RastogiPublication,Meerut
5. HammondP.andMcCullaghP.S.,1978:QuantitativeTechniquesinGeography:AnIntroduction,Oxford UniversityPress.
6. Sharma,PM,(2009)BhugolMesankhkiyaVidhyan,RajasthanGranthAcademy,Jaipur
7. BansalSC,(2020)ShodhvidhitantravasankhikiyaVisgyan,R.K.BooksPublication,NewDelhi.
8. KingL.S.,1969:StatisticalAnalysisinGeography,Prentice-Hall.
9. MahmoodA.,1977:StaticalsMethods inGeographicalstudies,Concepts.
10. PalS.K.,1998: Statistics forGeoscientists, Tata McGraw Hill, NewDelhi.
11. Sarkar,A.(2013)Quantitativegeography:techniquesandpresentations.OrientBlackSwan PrivateLtd.,NewDelhi
12. SilkJ.,1979:StatisticalConceptsinGeography,AllenandUnwin,London.
13. SpiegelM.R.:Statistics,Schaum'sOutlineSeries.
14. YeatsM.,1974:AnIntroductiontoQuantativeAnalysisinHumanGeography,McGraw Hill, New York.

Thiscoursecan beoptedas an electivebythe students of followingsubjects:Open forall

.....

Note: InFinalExaminationStudentshallbeexaminedbyexternalandinternalexaminers.Marks Distribution:Written Exam.Viva. PracticalFile,Instrumental Surveys.

BA 2nd YearSemester-IVCourseI(Theory)

Program/Class: Diploma/BA	Year:Second	Semester:Fourth
Subject:Geography		
CourseCode:0411101	CourseTitle:**Economic Geography**	

CourseLearningOutcomes

Oncompletionofthis course,learnerswill beableto:

- DefineMeaning,ConceptsandapproachesofEconomicGeography
- UnderstandthenatureofEconomicactivities,ResourceDistribution
- UnderstandtheEffectsofglobalizationondevelopingcountries.

Credits:4	CoreCompulsory
Max.Marks:-25+75	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek): L-4/w

Unit	Topics	No.of Lectures
I	Meaning,conceptsandapproachesofEconomicGeography:Spatialorganization ofeconomicactivities	8
II	Resources.meaning, concepts,classificationanddistribution	8
III	Spatio-Economic organization of Forestry, fishing andminingactivities	7
IV	Agriculturaltypologies,agriculturallandusemodel(VonThunen)	7
V	Typesof industries;Factorsof locationofindustries;iron andsteelindustry, cotton textiles andsugar.	8
VI	Worldtransportation:Searoutesandmajortranscontinentalrailways.	8
VII	WTOASEAN,andInternationaltrade:Patternsandtrends	7
VIII	Effectof globalizationondevelopingcountries.	7

SuggestedReadings:

1. BNSingh (2021)Manavevam ArthikBhugol,PravalikaPublication,Allahabad
2. Bryson, J., Henry, N., Keeble, D. and Martin,R. (eds.) (1999) : The EconomicGeography Reader: Production and Consuming Global Capitalism. John Wiley andSons,Inc, New York.
3. Clark,G.L.,Gertler,M.S.andFeldman,M.P.(eds.) (2000):The OxfordHandbookofEconomicGeography. Oxford UniversityPress, USA.
4. Coe,N.(2007):EconomicGeography:aContemporaryIntroduction.BlackwellPublishers Inc., Massachusetts.
5. Gautam,A.(2006):AarthikBhugolkeMoolTattava,Sharda PustakBhawan.Allahabad.
6. Guha,J.S.andChattoraj,P.R.(2002):ANewApproachtoEconomicGeography:AStudyof Resources. TheWorld PressPrivateLimited, Kolkata.
7. Hanink,D.M.(1997):PrinciplesandApplicationsofEconomicGeography:Economy,Poli cy, Environment.JohnWileyandSons,Inc, New York.
8. Hartshorne,T.A.andAlexander,J.W.(1988):EconomicGeography(3rd revisededition)En glewood Cliff, New Jersey, Prentice Hall
9. Hudson,R.(2005):EconomicGeographies:Circuits,FlowsandSpaces.SagePublications, London.
10. Knowles,R,Wareing,J.(2000):EconomicandSocialGeographyMadeSimple,Rupaand Company,New Delhi.
11. Sokal,Martin2011.EconomicGeographic'sofGlobalisation:ashortIntroduction.Chelten ham,UK : Edward Elgar.
12. Alexander,J.W.(1988):EconomicGeography.Prentice-Hall,NewDelhi,
13. H.M.Saxena(2021):EconomicGeography,RajasthanGranthAcademy,Jaipur.

SuggestedContinuousEvaluationMethods:
Assignment/Test /Quiz(MCQ)/Seminar/ Presentations

Suggested equivalent online courses:https://onlinecourses.nptel.ac.in/noc21hs50/preview

BA 2nd YearSemester-IVCourseII

(Practical)

Program/Class: Diploma/BA	Year:second	Semester:Fourth
Subject:Geography		
CourseCode:0411180	CourseTitle: **WeatherMaps,GeologicalMapsand AdvancedSurveying**	

CourseLearningOutcomes

OnCompletionof thiscourse, learnerswillbe ableto:

- IdentifythevariousSurveyOperationsandSurveyInstruments
- Tounderstandtheideaof Basic andappliedInstrumentalsurveying

Credits:2	CoreCompulsory
Max.Marks: 100	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):P-2/w

Unit	Topics	No. ofLectures
I	WeatherMaps–StudyandInterpretationofWeatherMap,WeatherForecasting.	7
II	GeologicalMaps:Types,SignsBed,andBeddingplane,RockOutcrop, Dip, Strikeetc.	7
III	InstrumentalSurvey: IndianClinometer/Sextant.	8
IV	InstrumentalSurvey:TelescopeAlidade.	8

SuggestedReadings:

1. Sharma,JP(2001)Prayogik Bhugol,RastogiPublication,Meerut
2. Jones,P.A.(1968):FieldworkinGeography,Longmans,GreenandCompanyLtd.,Firs t Publication,London.
3. Kanetker,T.P.andKulkarni,S.V.(1967):SurveyingandLeveling,Vol.IandII V.G.Prakashan,Poona.
4. Natrajan,V (1976): AdvancedSurveying, B I Publications,Mumbai
5. Pugh,J.C.(1975):SurveyingforFieldScientists,MethuenandCompanyLtd.,London, First Publication.
6. Punmia,B.C.(1994):Surveying,VolI,LaxmiPublicationsPrivateLtd,NewDelhi.

7. Shephard,F.A.(1968):SurveyingProblemsandSolutions,EdwardArnold(Publishers) Ltd,London.
8. Singh,R.L.andSingh,RanaP.B.(1993):ElementsofPracticalGeography.(HindiandE nglisheditions),KalayaniPublishers,LudhianaandNewDelhi.
9. Venkatramaiah,C.(1997):ATextBookofSurveying,UniversitiesPress,Hyderabad.
10. Davis,R.E.andFoote,F.s.(1953):Surveying,4th edition,McGrawHillPublication,Ne w York.

Note: InFinalExaminationStudentshallbeexaminedbyexternalandinternalexaminers.Marks Distribution:WrittenExam. Viva.Practical File, InstrumentalSurveys.

MAASHAKUMBHARIUNIVERSITYSAHARANPUR

Semester-wiseTitlesofthePapersin BA(Geography)

Year	Sem.	Course Code	NEPCode	PaperTitle	Theory/ Practical	Credits
3rdYearDegree						
3	V	0511101	A110501T	RegionalGeography (North East Asia)	Theory	4
3	V	0511102	A110502P	BasicsofRemoteSensingandGIS	Theory	4
3	V	0511160	A110503R	Tour/ Field study	Practical	2
3	V	0511165	A110504R	ProjectReport-1	Practical	4
3	VI	0611101	A110601T	GeographyofIndia	Theory	4
3	VI	0611102	A110602T	EvolutionofGeographical Thoughts	Theory	4
3	VI	0611180	A110603P	RemoteSensingandGIS	Practical	2
3	VI	0611165	A110604R	ProjectReport-2	Practical	4

BA 3rd YearSemester-VCourse I(Theory)

Program/Class: Diploma/BA	Year:Third	Semester:Fifth
Subject:Geography		
CourseCode:0511101	CourseTitle: **RegionalGeography:NorthEast Asia**	

CourseOutcomes:Studentswillbeabletounderstand

- Tounderstandthe Conceptof Regional Study.
- ToFamiliarizethestudentswithSocio-economicaspectsoftheRegion.
- Todevelopunderstandingabout the countriesoftheRegion.

Credits:4	CoreCompulsory
Max.Marks: 25+75	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):L-4/w

Unit	TopicsonNorth EastAsia	No.of Lectures
I	Region as a geographical entity and as a component of GlobalSystem,Groupingofcountries-geographical,Political,Historical and Cultural importance. (China, Japan, South andNorth Koreaand Taiwan)	8
II	GeologicalStructureand Relief,Climate,ClimaticRegions.	8
III	Vegetation,powerandmineralresources	8
IV	Population-Growth,DistributionandDensity,MigrationandComposition.	8
V	AgricultureCharacteristics, AgriculturalCrops	8
VI	Main industries- Distribution and development, Industrialregionof Countries	7
VII	DetailedStudyof China	7
VIII	DetailedStudyof Japan	6

SuggestedReadings: 1. Dr.M.N.Nigam–Monsoon Asia 2. VishwaNath Niwari– AsiakaBhaugolik Swaroop. 3. H.G. Dobby– MonsoonAsia 4. H.G.Cressy–Asia,Landand people 5. DudleyStamp-Asia
SuggestedContinuousEvaluationMethods: Assignment/Test /Quiz(MCQ)/Seminar/ Presentations
Suggested equivalent online courses:https://onlinecourses.nptel.ac.in/noc21hs50/preview

BA 3rd YearSemester-VCourse II(Theory)

Program/Class: Degree/BA	Year:Third	Semester:Fifth
Subject:Geography		
CourseCode:0511102	CourseTitle:**Basicsof RemoteSensingandGIS**	

CourseLearningOutcomes
Oncompletionofthiscourse,learnerswillbeableto:

- Understand the Basic idea and application of Remote sensing Techniques andGeographicalInformation System.

Credits:4	CoreCompulsory
Max.Marks: 25+75	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):L-4/w

Unit	Topics	No.of Lectures
I	RemoteSensing:Definition,Type,ScopeandHistoricalDevelopment.	7
II	Electro-magneticradiation:Characteristics,spectralregionsandbands. StagesofProcess of Remote Sensing.	7
III	Remotesensingsatellites:Platformandsensors.Resolution:Spatial,Spectral, Temporal,RadiometricResolution.	8
IV	Typesandtheircharacteristics ofaerialphotographs. Basicofimageinterpretation andit\sapplication.	8
V	IntroductionofGIS:Definition,conceptandhistoryofGIS	6
VI	RemoteSensingandGISapplicationsinUrbanPlanning,Smartcity development.	8
VII	RemoteSensingandGISApplicationsinAgriculture,Forestry,Landuse/LandCoverMapping,OceanicStudiesandDisasterManagement.	8
VIII	ComputerfundamentalsforGIS,GISPackageslikeARCGIS,ERDAS, QGIetc.	8

SuggestedReadings:

1. Choniyal,D.D.,(2016)SudurSamvadenEvamBhogolicSuchnaPranalikeSidhant,Sharda Pustak Bhawan,Allahabad.
2. Lillesand,T.M.andKiefer,R.W.(2000):RemoteSensingandImagesInterpretation.4th edition. JohnWileyand Sons, NewYork.
3. Campbell,J.B.(2002):IntroductiontoRemoteSensing5thedition,TaylorandFrancisLondon.
4. Bhatta, B.(2010)RemoteSensingandGIS,OxfordUniversityPress,New Delhi.
5. NagPrithivishandKudratM.(1998):DigitalRemoteSensing,ConceptPublishingCompany, New Delhi.
6. Curran,P.J.(1985).PrinciplesofRemoteSensing, Longman,London.
7. Dr.DeviDuttChauniyal:SudurSamvedanAvomBhaugholikSuchanaPranalikeSidhanth,ShardaPustak Bhawan, Allahabad.
8. Prof.P.K.GargPrincipleandTheoryofGeo-informatics,KhannaBookpublication,New Delhi.

SuggestedContinuousEvaluationMethods:
Assignment/Test/ Quiz (MCQ)/Seminar/Presentations

Suggestedequivalentonlinecourses:
CoursesonSwayam/MOOCshttps://onlinecourses.swayam2.ac.in/aic20_ge05/preview

BA3rdYear,Sem.V,C
ourseIII

(Practical)

Programme/Class: Degree/BA	**Year:Third**	**Semester:Fifth**
Subject:Geography		
CourseCode:0511160	CourseTitle: **Tour/ Field report (Studies of Local site)**	

CourseOutcomes:Studentswillbeabletounderstand

- Thevariationamonggeographicallocations.
- Interactionwithpeople withdifferentnaturalandculturalsettings
- Studyphysical and human geographyofareabeingvisited.
- LearntoprepareFieldreport

Credits:2	CoreCompulsory
Max.Marks: 100	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):P-2/w

Unit	**Topics**	**No.of Lectures**
I	HowtoprepareField report,stepsandmethodsforpreparingfieldreport,Methodology for Research in field studies,Variousaspectsofstudyinfield study,Preparationof field study.	30
#	(30)lecturesshallbetakenbeforeandduringfield report)	

SuggestedReadings:

Students have to submit field study report of minimum 20 pages consisting socio-economic survey statistical diagram and maps as per required.

SuggestedContinuousEvaluationMethods:
Thefollowingshall bethe guidelinesand structureofEducationaltour;

GeographicalExcursionCommittee

1. Allfaculty members shallorganize geographicalexcursionas'tour in-charge' inrotation accordingto departmental senioritylist.
2. There shall be Geographical Excursion Committee headed by HOD in University andPrincipai in coiieges. Tour in- charge shaii act as convener of committee and shallconvene a meeting at the beginning of committee. Four/Five meritorious studentsbasedonlastavailableexaminationresultshallbeinvitedbythefieldin-chargeto participateinmeetingasmembersofcommittee.

3. **Committeeshall:**
   a) Reviewthefieldplan.
   b) Confirmthatallarrangementsshallbemadeinadvancebeforefieldsitedeparture.
   c) Listentotheopinionofstudentsandgiverecommendationstofield-in-chargeaccordingly.
   d) Reviewacademicnatureoftourandevaluateddaywisetourplanandacademicactivityas submitted byTourin-charge

Structureofthe Fieldparty

1. For 20 or less than 20 students one faculty member with one non teaching staff shallaccompany the tour party. For 21 to 50 students two faculty members with one nonteaching staff shall accompany the Tour party. If two faculty members are required fortour, second faculty member shall be selected on the recommendation of tour in-charge. If students are more than 50 then a separate tour batch shall be constituted insamemanner.
2. If female students are also participating in tour and tour in-charge, accompany otherfacultymemberorNonteachingstaffnonearefemaleattended(Femalefacultymember from Geography or any other departments/female non teaching staff) shallaccompanywith tour party.

ResponsibilityofFieldSurveyin-charge

1. Tourshallat leastof6 daysstayat locationwithinterregionvariation.
2. Tour in-charge shall submit tentative day wise activity report in advance to HOD inUniversityand Principalin colleges.
3. Tourin-chargeshallcoordinatewithInstitutes/Colleges/Universities/Researchinstitutes etcin location wheretour is beingplanned forfollowingactivities like;
   a) Interactionofstudents.
   b) Lecturesonvariouslocalphysicalandcultural attributes oftheareabythe experts.
   c) Localvisit withfacultymembershavingacademicunderstandingofthe area.
4. Lectures by tour in-charge on physical and human characteristics of area being visitedforeducational tour.
5. Survey with students with at least one instrument like Indian clinometer, Sextant, GPSetc.
6. Questionnaire survey on various socio-cultural or any other aspects. Questionnairesmustbe preparedinadvanceandshallbe sharedduringGeographicalExcursionCommitteemeeting.
7. Field survey- in-charge shall collect undertaking from all students which shall becountersinged bytheirguardian.
8. Field survey- in-charge will prepare list of students accompanying the tour with theirinformation like mobile number, address, guardian contact information and one recentcolor photo. One copy will also be submitted to the head in universities and Principalincolleges.

9. Teachershallalwaystrytominimizetourexpenditureofstudentsby;
   a) Usingconcession trainreservation andavoidingbuses ifpossible.
   b) Making stay arrangement of students in advance inyouth hostels/lodges/guesthouseetc.
   c) Trytovisitfewimportantlocationsonlywithobjectivesofspotstudyandavoidingunnecessarytravel forsightseeing.
10. After the completion of tour there shall be presentation by students regarding learningoutcomes and experiences under the supervision of tour in-charge. Presentation shallbe attended by Geographical Excursion Committee members along with other facultymembers,staff, studentsetc.
11. Allstudentsshallsubmittourreportundersupervisionoftourin-chargeforevaluation. Tour report shall portray all activities conducted and places visited for thepurposesof study.
12. In case of any incident/injury where one or more than one student can't join tour partyin return journey. One teaching/non teaching staff member shall stay with student untilstudent's guardian arrives or alternative arrangement is not made by the college. Incase tour in-charge stays the other teacher/ staff member shall act as tour in-charge forremainingtour period accordingto in-charge.

Exemptionof StudentsfromTour/Fieldwork

1. Field survey can be exempted in very special circumstances on recommendation offield survey in-charge and head (in University) or Principal (in Colleges). Exemptedstudents will prepare local tour report on his/her own local tour visits. Report shall bepreparedunder supervisionof tourin-charge.

TA,DA and otherexpenses

1. The TA, DA and other expenses of teachers and attendants shall be met out by collegeasadmissible to theircadreas pergovernment rules.

Suggestedequivalentonlinecourses

BA 3rd YearSemester-VCourse III(Practical)

Programme/Class: Degree/BA	Year:Third	Semester:Fifth
Subject:Geography		
CourseCode:0511165	CourseTitle:**ProjectReport-I**	
CourseOutcomes: Studentswill be ableto understand • In-depthknowledgeofresearchmethodology • LearntopreparеProjectReport.		
Credits:3	CoreCompulsory	
Max.Marks: 25+75	Min.PassingMarks: 40	
TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):P-2/w		

Unit	Topics	No. ofLectures
I	Meaning,typesandsignificanceofResearch,Literaturereview and formulation of research design, research problem,objectives,hypothesis,Researchmaterialsandmethods, Samplingetc.Techniquesofwritingscientificreports:Preparingnotes,references,bibliography,abstractandkeywordsetc. **Note:** 1. Eachfacultymembershallteachthesetopicsofresearchtohis/herGroup ofstudentsindependently. 2. Students shall choose supervisor according to his/herresearchinterestandspecializationofFacultymember.	30

SuggestedReadings:

Thiscourse canbeoptedasanelectivebythe studentsof following subjects:Openfor all

SuggestedContinuousEvaluationMethods:
Seminar, Presentation,
VIVASuggestedequivalentonlineco
urses

BA 3rd Year,Semester-VICourse I(Theory)

Program/Class: Degree/BA	Year:Third	Semester:Sixth
Subject:Geography		
CourseCode:0611101	CourseTitle:**Geographyof India**	

CourseLearningOutcomes

Oncompletionofthiscourse,learnerswillbeableto:

- Understandtheimportanceof"EkBharatShresthaBharat"
- Understandthewinder aspectsofGeographyofIndia

Credits:4	CoreCompulsory
Max.Marks: 25+75	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):L-4/w

Unit	Topics	No. ofLectures
I	SpacerelationshipofIndiawithneighboringcountries;Structureandrelief;Drainagesystemandwatersheds;Physiographic regions;, Unityindiversity.	8
II	MechanismofIndianmonsoonsandrainfallpatterns,Tropicalcyclones,andwesterndisturbances;Floodsanddroughts; Climatic regions; Natural vegetation; Soil types andtheirdistributions.	8
III	Resources:energy,minerals,Forestand wildlife resourcesand their conservation (A study of wildlife Siwalik sanctuary)(BetweenRiver Yamunaand Ganga)	7
IV	Industry: Locational factors of industries; Industrialregionalization,New industrial policies,	7
V	CulturalSetting:Racial.linguisticandethnicdiversities:	8
VI	Population: Growth, distribution, and density of population;Demographic attributes: sex-ratio, age structure, literacy rate,work-force,dependencyratio,longevity;migration(inter-regional,intraregionalandinternational)andassociatedproblems;Population problems and policies;	8

VII	Agriculture:Infrastructure:irrigation,seeds,fertilizers,power;Institutionalfactors:Croppingpattern,agriculturalproductivity,agriculturalintensity,cropcombination,landcapability; Agro and social-forestry: Green revolution and itssocio-economic and ecological implications.	8
VIII	Settlements: Types, pattern, and morphology of ruralsettlements;Urban developments:-Slums.	8

SuggestedReadings:

1. Chauhan,P.R.andPrasad,M.(2003):BharatKaVrihadBhugol,VasundharaPrakashan, Gorakhpur.
2. Gautam,A.(2006):AdvancedGeographyofIndia,ShardaPustakBhawan,Allahabad
3. BansalSC(2018) Bharat KaBhugol,Meenakshi Publication,Meerut.
4. Nag,P.andGupta,S.S.(1992):GeographyofIndia,ConceptPublishingCompany,New Delhi.
5. Rao,B.P.(2007):BharatkeeBhaugolikSameeksha, VasundharaPrakashan,Gorakhpur .
6. Sharma,T.C.andCoutinho,O.(2003):EconomicandCommercialGeographyofIndia, Vikas Publishing HousePrivate Ltd. NewDelhi.
7. Singh,J.(2003):India:AComprehensiveSystematicGeography.GyanodayaPrakashan,Gorakhpur
8. Singh,R.L.(ed.)(1971):India:ARegionalGeography.NationalGeographicalSocietyofIndia, Varanasi.
9. 13.Spate.O.H.K..LearmonthA.T.A.andFarmer.B.H.(1996):India.PakistanandSriLanka. Methuen,London, 7th edition.
10. Tiwari,R.C.(2007):Geographyof India,PrayagPustakBhawan,Allahabad.
11. Wadia,D.N.(1959):GeologyofIndia.Mac-MillanandCompany,Londonandstudentedition, Madras.
12. Khullar,D.R.(2007):India:AComprehensiveGeography,KalyaniPublishers,NewDelhi.

BA 3rd YearSemester-VICourse II(Theory)

Program/Class: Degree/BA	Year:Third	Semester:Sixth
Subject:Geography		
CourseCode:0611102	CourseTitle: **EvolutionofGeographicalThought**	

CourseLearningOutcomes

Oncompletionofthiscourse,learnerswillbeableto:

- UnderstandtheContributionof IndiaandotherrenownedGeographers
- UnderstandtheconceptofevolutionofGeographicalThought.

Credits:4	CoreCompulsory
Max.Marks: 25+75	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):L-4/w

Unit	Topics	No. ofLectures
I	ContributionofIndianGeographersinAncient India.	7
II	EarlyOriginsofGeographicalThinking,Conceptsofdistributions: relationships, interactions, areal differentiationandspatial organization in Geography	7
III	Dualisms in geography; systematic & Regional geography,physical & human geography, Systematic and with regionalgeography.Themythandrealityabout dualisms.	8
IV	ContributionofGreek&Romangeographersinancientworld.	7
V	ContributionofArabgeographersinMiddleages,Renaissance period in Europe. Renowned travelers and theirgeographicaldiscoveries.	8
VI	Germanschoolofthought-Kant,Humboldt,Ritter,Ratzel,Frenchschoolofthought–Contribution ofBlache &Brunhes.	8

VII	American school–Contribution of Sample, Huntington & CarlSauer.Britishschool-ContributionofMackinder,Herbertson& L.D. Stamp.	7

VIII	ParadigmsinGeography,ThomasKuhntheoryaboutVIIIthegrowth and development of science.	8

SuggestedReadings:

1. Ali,S.M.(1960):ArabGeography.InstituteofIslamicStuUniversity.Aligarh,FirstEdition.
2. Dikshit,R.D.(2003):GeographicalThought.ACriticalHistoryofIndia,NewDelhi.(in English and Hindi).
3. 5. Dube, B. (1967): Geographical Concepts in Ancient India NationalGeographicalSocietyofIndia,Varanasi.
4. Hartshorne,R.(1959):PerspectiveontheNatureofGeography,JohnMurray,London
5. Harvey,D.(1969):ExplanationsinGeography.Arnold, London,
6. Holt-Jensen,A.(1980):Geography:ItsHistoryandConceptsHarperandRowPublishers, London.
7. Husain,Majid.(2002):EvolutionofGeographic Thought,RawatPublications,Jaipur.
8. Rawling,E.andDaugherty,R.(eds.)(2005):GeographyintotheTwenty-firstCentury.2ndedition. John Wileyand Sons, Chichester.
9. Taylor,G.(ed.)(1953):GeographyintheTwentiethCentury.MethuenandCompanyLondon.
10. S.C.Bansal(2020):BhougolikChintan.MeenakshiPrakashan,Meerut.
11. S.D.Maurya:Bhougolik Chintanka Itihas,Prawalikapublication, Prayagraj.

Suggested Continuous Evaluation Methods:Assignment/test/Quiz(MCQ)/Seminar/Presentation

Suggestedequivalentonlinecourses:
Courses on Swayam /
MOOCshttps://onlinecourses.swayam2.ac.in/cec21lg06/preview

BA 3rd YearSemester-VICourse III(Practical)

Program/Class: Degree/BA	Year:Third	Semester:Sixth
Subject:Geography		
CourseCode:0611180	CourseTitle: **RemoteSensingandGIS**	

CourseLearningOutcomes

Oncompletionofthiscourse,learnerswillbeableto:

- UnderstandandConceptualizeAerialphotographyRemoteSensingandGISTechnique.
- AerialPhotography,RemoteSensingand mappingofdisastermanagement.
- BasicideaofGeographical InformationSystem.

Credits:2	CoreCompulsory
Max.Marks: 100	Min.PassingMarks: 40

TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):P-2/w

Unit	Topics	No. ofLectures
I	AerialPhotographs-meaningandtypes,techniquesofphotography and photogrammetry, forward. Over laps, lateraloverlaps,Coverageofareabyaerial photographs.	7
II	Remotesensing-Definition,types,scope,development.	7
III	RemoteSensing-Electro-magneticRadiation-characteristics	7
IV	RemoteSensing-Satellites-- platformsandSensors	7
V	RemoteSensing-Resolutiontypes	7
VI	RemoteSensingandGISapplication	6
VII	RemoteSensing--Studyof GPS	6

SuggestedReadings:

1. Chaunial,D.D.(2004):RemoteSensingandGeographicalInformationSystem(inHindi), ShardaPustak Bhawan, Allahabad
2. Cracknell,A.andLadson,H.(1990): RemoteSensingYearBook.TaylorandFrancis,London.
3. Curran,P.J.(1985):PrinciplesofRemoteSensing. Longman,London.
4. Deekshatulu,B.L.andRajan,Y.S.(ed.)(1984):RemoteSensing.IndianAcademyofScience,Bangalore.
5. Floyd,F.andSabins,Jr.(1986):RemoteSensing:PrinciplesandInterpretation. W.H.Freeman,New York.
6. Gautam,N.C.andRaghavswamy,V.(2004).:LandUse/LandCoverandManagementPractices inIndia. B.S. Publication.,Hydrabad.
7. Jensen,J.R.(2004).RemoteSensingoftheEnvironment.AnEarthResourcePerspective.PrenticeHall,EnglewoodCliffs,NewJersey.Indianreprintavailable.
8. Nag,P.(ed.)(1992):ThematicCartographyandRemoteSensing.ConceptPublishingCompany, New Delhi.
9. Campell,J.B.(2003):IntroductiontoRemoteSensing.4th edition.TaylorandFrancis,London.
10. P.K.GargPrincipleandTheoryofGeo-informatics,KhannaBookPublication,NewDelhi.

Note: InFinalExaminationStudentshallbeexaminedbyexternalandinternalexaminers. MarksDistribution:WrittenExam.Viva.PracticalFile.MapPreparationusingopensourceGIS. ImageprocessingSoftwareUse.

BA3rdYear,Sem ester-VICourse III(Practical)

Program/Class: Degree/BA	Year:Third	Semester:Sixth
Subject:Geography		
CourseCode:0611165	CourseTitle:**ProjectReport-2**	
CourseOutcomes: Studentswill be ableto understand • In-depthknowledgeandapplicationofRS andGIStechnologyinresearch. • LearntoprepareProject Report.		
Credits:3	CoreCompulsory	
Max.Marks: 25+75	Min.PassingMarks: 40	
TotalNo.of Lectures-Tutorials-Practical(inhoursperweek):P-2/w		

Unit	Topics	No. ofLectures
I	Projectreport shallbeonanytopicof interestof students. It must include area of disaster management, Remote sensingand GIS technology directly or indirectly. Like project can bebased on investigation of any issue using above technology orthesetechnologymustbeusedindataanalysisorrepresentation. Note: 1. Each faculty member shall teach and guide to his/herGroupofstudents independently. 2. Students shall choose supervisor according to his/ herresearchinterestandspecializationofFacultymember	30

SuggestedReadings:

Thiscourse canbeopted asanelectivebythe studentsof following subjects:Openfor all

SuggestedContinuousEvaluationMethods:
Seminar,Presentation,VIVA

Suggestedequivalentonlinecourses

MAA SHAKUMBHARI UNIVERSITY, SAHARANPUR
EFFECTIVE FROM 2024-25
B.A. Honours with Research – (SEMESTER–VII) Geography as per NEP 2020

YEAR	SEMESTER	COURSE CODE	CORE/ ELECTIVE/ VALUE ADDED	NEP Code	NEP CODE	PAPER TITLE	THEORY/ PRACTICAL PROJECT	CREDITS	INTERNAL MARKS	EXTERNAL MARKS (Min. Marks)	TOTAL MARKS	MINIMUM MARKS (INT.+ EXT.)	TEACHING HOURS THEORY + TOTORIAL	
YEAR-4 AS PER NEP / YEAR-I	SEMESTER-VII ASPER NEP-2020/SEMESTER-I	I	CORE COMPULSORY		0711121	NATURAL RESOURCE MANAGEMENT	THEORY	4	25	75 (25)	100	40	60	15
		II	CORE COMPULSORY		0711122	HISTORY OF GEOGRAPHICAL THOUGHT	THEORY	4	25	75 (25)	100	40	60	15
		III	CORE COMPULSORY		0711123	ADVANCED GEOGRAPHY OF INDIA (PHYSICAL AND REGIONAL)	THEORY	4	25	75 (25)	100	40	60	15
		Any One of the following												
		IV	CORE ELECTIVE		0711124	GEOMORPHOLOGY	THEORY	4	25	75 (25)	100	40	60	15
		V	CORE ELECTIVE		0711125	BIO-GEOGRAPHY	THEORY	4	25	75 (25)	100	40	60	15
		VI	CORE ELECTIVE		0711126	GEOGRAPHY OF WATER RESOURCES	THEORY	4	25	75 (25)	100	40	60	15
		VII	CORE ELECTIVE		0711165	PROJECT-I	OPTIONAL	4		100	100	40		60
		VIII	CORE COMPULSORY		0711180	STATICAL TECHNIQUES IN GEOGRAPHY	PRACTICAL	4		100	100	40		60

Note : First Three Theory Papers are compulsory and one theory paper from IV, V or VI course can be offered as a optional. No internal exam in Practical

शासनादेश संख्या– 2090/77–3–24–09(01) दिनांक 02.09.2024 के अनुरूप राष्ट्रीय शिक्षा नीति–2020 को कतिपय संशोधन के साथ शैक्षणिक सत्र 2024–25 से लागू से लागू किया गया है, जिसके अनुसार, ऐसे विद्यार्थी जिन्होंने प्रथम 06 सेमेस्टर (स्नातक त्रिवर्षीय) में न्यूनतम 75 प्रतिशत अंक प्राप्त किये हैं वह स्नातक चतुर्थ वर्ष अथवा स्नातकोत्तर प्रथम वर्ष के दोनों सेमेस्टर्स में विद्यार्थी चार–चार क्रेडिट के दो कोर्स के स्थान पर एक शोध परियोजना ले सकता है। यह शोध परियोजना एक सप्तम एवं एक अष्टम सेमेस्टर के थ्योरी कोर्स के स्थान पर लेनी होगी ना कि किसी एक सेमेस्टर के दो कोर्स के स्थान पर। स्नातक चतुर्थ वर्ष में शोध सहित उत्तीर्ण होने वाले विद्यार्थी को स्नातक (मानद शोध सहित) की उपाधि दी जाएगी।

नोटः– पेपर नं0 I II III एवं VIII सभी छात्रों के लिये अनिवार्य रहेगें। यदि छात्र/छात्रा के बी0ए0 तीनों वर्षों में 75 प्रतिशत अथवा उससे अधिक अंक प्राप्त होते है और यदि वह इच्छुक है तो वह प्रोजेक्ट का पेपर VII ले सकते है अन्यथा उसे पेपर संख्या IV V VI में से कोई एक पेपर लेना होगा। यदि छात्र/छात्रा प्रोजेक्ट का पेपर लेना है तो उन्हे बी0ए0 आनर्स रिर्सच सहित डिग्री दी जायेगी। अन्यथा छात्र/छात्रा को केवल बी0ए0 आनर्स की डिग्री ही दी जायेगी।

Year – IV

B.A. Honours with Research, Geography- Semester-VII

Course I

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: First**
Subject: Geography		
Compulsory Courses	Course Code: 0711124	Course Title: **Geomorphology**

Course Outcomes: Students will be able to understand.

- Geomorphology – Concept, evolution of landscape.
- Endogenetic forces and their impact
- Exogenetic forces – Process and their works
- Evolution of landscape and models
- Types of Geomorphology
- Regional Geomorphology of Siwaliks and Plains.

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To acquaint with the physical structure of the earth.

Unit	**Topics**	**No. of Lectures**
Unit-I:	Nature and scope of Geomorphology, Fundamental concepts- uniformitarianism, multicyclic and polygenetic evolution of landscapes. Interior of the earth, Plate tectonics.	12
Unit- II:	Earth movements –epeirogenic and orogenic earth movements. Forces of crustal instability, isostasy, Fold, Fault, Earthquake and Vulcan city.	12
Unit- III:	Exogenic Processes: Concept of gradation, Agents and processes of gradation, causes, types and classification of weathering, mass wasting, erosional, and depositional processes and resultant landforms and soil formation.	12
Unit- IV:	Landscape evaluation models: WM Davis, Penck, LC King, dynamics of fluvial, glacial, Aeolian, and karst processes and resulting land forms, complexities in geomorphological processes.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VII

Course II

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: First**
Subject: Geography		
Compulsory Courses	Course Code: 0711121	Course Title: **Natural Resource Management**
Outcomes: Student will be able to understand. • Concept and nature of Resources • Use and misuse of Resources • Conservation and management of resources • Policy making for various resources • Resources sustainability and their development		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)		
Objectives: To acquaint with the utility of various resources.		

Unit	**Topics**	**No. of Lectures**
Unit-I	Introduction: Concept, models and approaches to natural resource management; problems of resource utilization; population pressure, development and resource utilization, natural hazards and risk management.	12
Unit-II	Use and misuse of Resources: Global and Indian scenario; historical background and future prospects of various resources; soil, water, minerals, forests.	12
Unit-III	Conservation and management of resources: Meaning, principles, philosophy and approaches to resource conservation; resource conservation and management methods.	12
Unit-IV	Resource appraisal and policy making: appraisal of Land resources, geophysical, geochemical, geo-botanical; Policy models towards better management and conservation of resources.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VII

Course III

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: First**
Subject: Geography		
Compulsory Courses	Course Code: 0711122	Course Title: **History of Geographical Thought**

Out comes: Students will be able to understand

- Geography – meaning and purpose, Areal and Spatial Organisation
- Geography development in various periods
- Contribution of French, German, Russian Geographers
- Dualism in geography
- Development of geographical thought in various developed countries and India.

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To acquaint with the development of geography subject in different periods and to know the views of various geographers.

Unit	**Topics**	**No. of Lectures**
Unit-I:	The field of geography: Meaning, philosophy and purpose of Geography. Geography as a social science and natural science. Concepts in the philosophy of geography distributions, relationships, interactions, Areal differentiation and spatial organization.	12
Unit-II:	Geography in the ancient and medieval period: Contribution of Greek and Roman Geographers- Character of Geography in medieval period- the Dark Age, the Arabic period and the Renaissance period.	12
Unit-III:	Geography in the modern period: Contribution of German (Humboldt, Ritter & Ratzel), French (Blache and Brunhes), Russian (Gerasimov, Lomonosov), British (L.D. Stamp and Mackinder) and American(Richard Hartshorne, Semple & Huntington)Schools.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VII

Course IV

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: First**
Subject: Geography		
Compulsory Courses	Course Code: 0711123	Course Title: **Advanced Geography of India (Physical & Regional)**

Outcomes: Students will be able to understand

- Geological and physical structure of India
- Hydrological and climate characteristics
- Soils and vegetation Region
- Disasters: Types and their management
- Case study of Hilly and Plain Regions

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To know about the Physical aspects of Indian geography.

Unit	**Topics**	**No. of Lectures**
Unit-I :	Making of India through Geological Time: Geology, Structure and Relief of India, Physical Divisions of India.	12
Unit-II:	Drainage System and Watersheds, Hydrology and Water Balance, Climate Characteristics, Mechanism of Indian Monsoon, Climatic Regions of India.	12
Unit-III:	Soil Resource & Conservation, Problem of Soil Erosion, Problem of deforestation, Forest Resources and their Conservation, Types of Soils and Natural Vegetation, Resource Regions of India.	12
Unit-IV:	Different Schemes of Physiographic Regionalization of India, their bases and Comparative Studies. Disasters: Concept, types of disasters in India, and their management.	12
Unit-V:	Detailed case Studies of Uttarakhand Himalayas and Gangetic Plain with respect to their Geology, Structure, Relief, Drainage and Physiographic Divisions.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VII

Course V

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: First**
Subject: Geography		
Optional	Course Code: 0711125	Course Title: **Biogeography**

Out comes: Students will be able to understand

- Meaning and concept of Biogeography
- Plants and their Communication
- Zoo community and Environment
- Palo – botanical and climate logical records and impact and climate change
- National policy – forest and biotic Resources

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To acquaint with the Plants and zoo environment.

Unit	**Topics**	**No. of Lectures**
Unit-I:	Scope and development of Biogeography. Ecosystem Environment, Habitat and Plant-animal association, biome types.	12
Unit-II:	Elements of plant geography, distribution of forests and major communities. Plant successions in newly formed landforms. Examples from flood plains and glacial fore fields.	12
Unit III:	Zoogeography and its Environmental Relationship.	12
Unit- IV:	Palaeobotanical and Palaeo climatological records of environmental change in India.	12
Unit- V:	National Forest Policy of India. Conservation of Biotic Resources.	12

Suggested Readings:

- Agarwal, D.P. (1992): Man and Environment in India Through Ages, Book & Books.

Year – IV

B.A. Honours with Research, Geography- Semester-VII

Course VI

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: First**
Subject: Geography		
Optional	Course Code: 0711126	Course Title: **Geography of Water Resources**

Out comes: Students will be able to understand

- Water as a resource
- Demand and supply of water for various uses
- Water use in industrial sector
- Water resource management, drought and floods
- Conservation of water resources

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To know the importance of water resource especially in India and in various Sectors.

Unit	**Topics**	**No. of Lectures**
Unit-I:	Water as a focus of geographical interest, inventory and distribution of world's water resources (surface and subsurface); world hydrologic cycle: quantitative estimates; water storages. Glaciers, river channels, lakes and reservoirs; soil moisture, ground water.	12
	The basic hydrologic cycle: precipitation: potential, evapotranspiration and interception losses; runoff	
Unit-II:	Water demand and use: methods of estimation - agricultural, industrial and municipal uses of water.	12
	Agricultural use of water: estimation of crop - water requirement; soil-water- crop relationships; water balance and drought; major and minor irrigation: methods of distribution of water to farms; water harvesting techniques, soil water conservation.	

Year – IV

B.A. Honours with Research, Geography- Semester-VII

Course VII

Practical

Programme Class: Certificate/ B.A	**Year: First**	**Semester: First**
Subject: Geography		
Compulsory Courses	Course Code: 0711180	Course Title: **Statistical Techniques in Geography**
Course Learning Outcomes: •		
Credits: 4	Core Compulsory	
Max. Marks: 100	Min. Passing Marks: 40	
Total No. of Lectures- Practical (Practical Exam-75)		

Unit	**Topics**	**No. of Lectures**
Unit-I :	Types of profiles, Slope Analysis by different methods (Wentworth and Henry Raisz), Morpho-metric Analysis.	12
Unit-II:	Standard Deviation, Mean, Quartiles One and Three, Ranking methods. Probability. Theory of Probability Geographical Application of statistical techniques.	12
Unit-III:	Correlation: Spearman's and Carl Parsons Methods, Line of Regression, Chi-square test, binomial test.	12
Unit-IV :	Techniques of Mappings– Drainage density, flow diagrams, population mapping.	12
Unit-V:	Fieldwork– Field work and data processing techniques, sampling tests, dispersion diagrams.	12

Note: For written test in all 10 questions shall be given selecting 02 questions from each unit. The students shall be attempting five questions selecting one question from each unit. Each question shall be carrying 12 marks.

For Examination the break-up of marks-

Written Test (3Hrs.)	60 marks
Field Study	20 marks
Viva-voce	10 marks
Record work	10 marks

Year – IV

B.A. Honours with Research, Geography- Semester-VIII

Course IX

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: Second**
Subject: Geography		
Compulsory Courses	Course Code: 0811121	Course Title: **Climatology and Oceanography**

Out comes: Students will be able to understand

- Meaning and importance of Climatology
- Movement of air, humidity pattern, ocean waves effecting climate
- Climate Region by various Scholars
- Oceanography – Concept, floor configuration
- Ocean water movement pattern

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To acquaint with the activities of atmosphere oceans.

Unit	**Topics**	**No. of Lectures**
Unit-I:	Nature and scope of climatology and its relationship with meteorology. Composition and structure of the atmosphere. Insolation and Heat Budget. Green House Effect. Distribution of Temperature and Pressure. Planetary wind system. Jet Streams and Monsoon machanism.	12
Unit-II :	Humidity and Precipitation. Acid Rain, Air Masses and Fronts, Origin of Cyclones, Anti-cyclones and Thunder storms and their effects. Ocean atmospheric interaction: El Nino and La Nina Phenomenon.	12
Unit- III:	Climatic classification of Koeppen and Thornthwaite, Major climates of the world- tropical, temperate, desert and mountain climate. Climatic changes and Global warming.	12
Unit-IV:	Nature and scope of oceanography. Distribution of land and water. Surface configuration of the ocean floor. Sub-marine relief of the	12

Year – IV

B.A. Honours with Research, Geography- Semester-VIII

Course CX

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: Second**
Subject: Geography		
Compulsory Courses	Course Code: 0811122	Course Title: **Geography of Rural Settlements**

Out comes: Students will be able to understand

- Meaning and concept of rural settlements
- Rural-urban differentials
- Types and pattern of rural settlements
- Social issues in rural areas
- Environment structure in rural areas
- Rural cultural landscape

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To know the geographical factor of rural areas.

Unit	**Topics**	**No. of Lectures**
Unit-I:	Nature, scope, significance and development of rural settlement geography. Approaches to rural settlement geography. Rural-urban continuum	12
	Definition and characteristics of rural settlements in the fringe areas and sparsely settled areas. Distribution of Rural settlements: size and spacing of rural settlements. Nearest Neighbour Analysis.	
Unit-II :	Types, forms and Patterns of rural settlements: cause and effect, Classification of rural settlements, Rural service centres, their nature, hierarchy and functions, rural-urban fringe-structure, characteristics and functions.	12
Unit-III:	Social issues in rural settlements: poverty, housing and shelter, depriation and inequality, empowerment of women, healthcare, rural-urban interaction.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VIII

Course XI

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: Second**
Subject: Geography		
Compulsory Courses	Course Code: 0811123	Course Title: **Advanced Geography of India (Socio-economic)**

Out comes: Students will be able to understand

- Indian agriculture pattern
- Power resources- types and sustainability
- Industrial development and their pattern
- Social (Population) Pattern
- Economic regions- micro and micro

Credits: 4	Core Compulsory
Max. Marks: 25+75	Min. Passing Marks: 40

Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)

Objectives: To know the economic features of India.

Unit	**Topics**	**No. of Lectures**
Unit- I :	Agricultural system and technological problems of Indian agriculture, developments, agrarian reforms, green revolution achievements and short comings, need of 2nd green revolution, Agro-climatic regions of India. Regionalization of agriculture in India, Crop combination regions of India, Food production and population growth.	12
Unit- II:	Energy in India- Conventional and Non-conventional power resources, regional set- up of Hydro and Thermal Power stations, locational patterns and analysis of coal & petroleum resources, govt. policies and conservation of energy resources.	12
Unit-III:	Analysis of Agro-Based (Sugar), Forest Based (Paper & Pulp) and Mineral based industries (Iron & Steel), Industrial regions of India, Modes of transport, their significance and development. The pattern of foreign trade.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VIII

Course XII

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: Second**
Subject: Geography		
Compulsory Courses	Course Code: 0811124	Course Title: **Regional Planning and Development**
Out comes: Students will be able to understand • Regional concept and planning • Physical and planning regions • Regions and their utility • Regional development strategies • Various level of planning		
Credits: 4		Core Compulsory
Max. Marks: 25+75		Min. Passing Marks: 40
Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)		
Objectives: It will acquaint the student with the development plan at regional level.		

Unit	**Topics**	**No. of Lectures**
Unit - I :	Regional concept in geography, Concept, Nature and Scope of Regional Planning., Changing concept of the region from an inter-disciplinary view-point, Concept of space, area and locational attributes. Types of region: Formal and functional: Uniform and Nodal, Single purpose and Composite regions in the context of planning; Regional hierarchy.	12
Unit - II:	Physical regions, Planning regions of India, Regional divisions according to variations in levels of socio-economic development; Special purpose regions-river valley regions, Metropolitan regions, Problem regions–hilly regions, Tribal regions, Regions of drought and floods.	12
Unit - III:	Approaches to Delimitation of different types of regions and their utility in planning. Planning process - Sectoral, Temporal and spatial dimensions; Short- term and Long term perspectives of planning.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VIII

Course XIII

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: Second**
Subject: Geography		
Optional	Course Code: 0811125	Course Title: **Geography of Transport**
Out comes: Students will be able to understand • Transport Geography Concept • Significance of various modes of transport • Accessibility types and their pattern • Modes and network system • Transport development planning		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)		
Objectives: It will acquaint the student with the pattern, type, layout and areas of development of transport.		

Unit	**Topics**	**No. of Lectures**
Unit-I:	Nature, concept scope, significance and development of Transport Geography, Factors associated with the development of transport system: physical, economic, social, cultural and institutional; economic, technological and regional development and transport development.	12
Unit-II:	Characteristics and relative significance of different modes of transport: railways, roads, airways and waterways, pipelines etc.	12
Unit-III:	Structure- Accessibility and Flow models; network structure, graph theoretic measures, measurement of accessibility, models of network change. Linear programming and gravity models, Theories related to freight rate structure, bases of spatial interaction, complementary intervening opportunity and transferability.	12

Year – IV

B.A. Honours with Research, Geography- Semester-VIII

Course XIV

Theory

Programme Class: Certificate/ B.A	**Year: First**	**Semester: Second**
Subject: Geography		
Optional	Course Code: 0811126	Course Title: **Political Geography**
Outcomes: Students will be able to understand • Political Geography. Concept and importance • Elements of the state • Nations characteristics, periphery concepts • Geo political significance of strategic regions • Indian political geographical characteristics		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks: 40	
Total No. of Lectures- 12 Periods Per Unit (Theory Exam-75 Internal Assessment-25)		
Objectives: Importance and role of geography in the political events.		

Unit	**Topics**	**No. of Lectures**
Unit-I:	Nature, scope, subject matter and recent development in political geography; approaches to study, major schools of political thought. (Heartland Theory)	12
Unit-II:	Geographic Elements and the State: Physical Elements; Human elements; Economic elements; Political geography and environment interface.	12
Unit-III:	Themes in Political Geography: State, Nation, Nation-State and Nation-building, Frontiers and boundaries, Colonialism, decolonization, Neocolonialism, Federalism and other forms of governance. The changing patterns of World Powers, Perspectives on core-periphery concept, Conflicts and cooperation.	12
Unit-IV:	Geopolitical significance of Indian Ocean: Political geography of any one of the following regions: SAARC Region, South-East Asia, West Asia, East Asia, ASEAN	12

Year – IV

B.A. Honours with Research, Geography- Semester-VIII

Practical

Programme Class: Certificate/ B.A	**Year: First**	**Semester: Second**
Subject: Geography		
Compulsory Courses	Course Code: 0811180	Course Title: **Advanced Cartography (Practical)**
Course Learning Outcomes: •		
Credits: 4	Core Compulsory	
Max. Marks: 100	Min. Passing Marks: 40	
Total No. of Lectures- Practical (Practical Exam-75)		

Unit	**Topics**	**No. of Lectures**
Unit- I:	Definition, Scope and Development of Modern Cartography. Classification of Map. Map as a Data Model. Tools of Map Making. Lettering and Symbolization of Maps. Techniques of Map making. Computer Assisted Cartography.	12
Unit- II:	Graphical Presentation of Statistical Data: Graphs and Diagrams, Construction of Climograph, Ergograph, Hythergraph, Wind Rose.	12
Unit-III :	Compound Pyramid Diagram, Circle and Spherical Diagram, Dispersion and Scatter Diagrams.	12
Unit-IV :	Distribution Maps: Types and Methods of drawing thematic maps, Choroschematic, Chorochromatic, Choropleth, Isopleth.	12
Unit-V:	Map Projections: Properties, classification and choice of map projections. Mathematical construction of Sinusoidal, Mollweide, International and Gall's Projections.	12
Note:	For written test in all 10 questions shall be given selecting 02 questions from each Unit from I to V. The students shall be attempting five questions selecting one question from each unit. Each question shall be carrying 15marks.	