ROYAL GLOBAL UNIVERSITY
GUWAHATI

ROYAL SCHOOL OF ENVIRONMENTAL AND EARTH SCIENCES (RSEES)

DEPARTMENT OF GEOGRAPHY

COURSE STRUCTURE & SYLLABUS

(BASED ON NATIONAL EDUCATION POLICY 2020)

FOR

B.A/ B.Sc. GEOGRAPHY

(4 YEARS SINGLE MAJOR)

W.E.F

AY - 2023 – 24

B.A/B.Sc. (Honours) in Geography
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1. Preamble

The National Education Policy (NEP) 2020 conceives a new vision for India's higher education system. It recognizes that higher education plays an extremely important role in promoting equity, human as well as societal well-being and in developing India as envisioned in its Constitution. It is desired that higher education will significantly contribute towards sustainable livelihoods and economic development of the nation as India moves towards becoming a knowledge economy and society.

If we focus on the 21st century requirements, the higher education framework of the nation must aim to develop good, thoughtful, well-rounded, and creative individuals and must enable an individual to study one or more specialized areas of interest at a deep level, and also develop character, ethical and Constitutional values, intellectual curiosity, scientific temper, creativity, spirit of service, and twenty-first-century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects. A quality higher education should be capable enough to enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to the society. Overall, it should focus on preparing students for more meaningful and satisfying lives and work roles and enable economic independence.

Towards the attainment of holistic and multidisciplinary education, the flexible curricula of the University will include credit-based courses, projects in the areas of community engagement and service, environmental education, and value-based education. As part of holistic education, students will also be provided with opportunities for internships with local industries, businesses, artists, crafts persons,and so on, as well as research internships with faculty and researchers at the University, so that students may actively engage with the practical aspects of their learning and thereby improve their employability.

The undergraduate curriculums are diverse and have varied subjects to be covered to. As per the recommendations from the UGC, introduction of courses related to Indian Knowledge System (IKS) is being incorporated in the curriculum structure which encompasses all of the systematized disciplines of Knowledge which were developed to a high degree of sophistication in India from ancient times and all of the traditions and practises that the various communities of India—including the tribal communities—have evolved, refined and preserved over generations, like for example Vedic Mathematics, Vedangas, Indian Astronomy, Fine Arts, Metallurgy, etc

At RGU, we are committed that at the societal level, higher education will enable each student to develop themselves to be an enlightened, socially conscious, knowledgeable, and skilled citizen who can find and implement robust solutions to its own problems. For the students at the University, Higher education is expected to form the basis for knowledge creation and innovation thereby contributing to a more vibrant, socially engaged, cooperative community leading towards a happier, cohesive, cultured, productive, innovative, progressive, and prosperous nation."

SECTION 1

OVERVIEW OF THE NEP 2020 SYLLABUS

1.1. Introduction

The National Education Policy (NEP) 2020 clearly indicates that higher education plays an extremely important role in promoting human as well as societal well-being in India. As envisioned in the 21st-century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. According to the new education policy, assessments of educational approaches in undergraduate education will integrate the humanities and arts with Science, Technology, Engineering and Mathematics (STEM) that will lead to positive learning outcomes. This will lead to develop creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills, more in-depth learning, and mastery of curricula across fields, increases in social and moral awareness, etc., besides general engagement and enjoyment of learning. and more in-depth learning.

The NEP highlights that the following fundamental principles that have a direct bearing on the curricula would guide the education system at large, viz.

a. Recognizing, identifying, and fostering the unique capabilities of each student to promote her/his holistic development.
b. Flexibility, so that learners can select their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests.
c. Multidisciplinary and holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world.
d. Emphasis on conceptual understanding rather than rote learning, critical thinking to encourage logical decision-making and innovation; ethics and human & constitutional values, and life skills such as communication, teamwork, leadership, and resilience.
e. Extensive use of technology in teaching and learning, removing language barriers, increasing access for Divyang students, and educational planning and management.
f. Respect for diversity and respect for the local context in all curricula, pedagogy, and policy.

1.2. Credits in Indian Context:

1.2.1. Choice-Based Credit System (CBCS) By UGC

Under the CBCS system, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be earned by the students. This framework is being implemented in several universities across States in India. The main highlights of CBCS are as below:

- The CBCS provides flexibility in designing curriculum and assigning credits based on the course content and learning hours.
- The CBCS provides for a system wherein students can take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning.
- CBCS also provides opportunity for vertical mobility to students from a bachelor's

degree programme to masters and research degree programmes.

1.3. Definitions

1.3.1. Academic Credit:

An academic credit is a unit by which a course is weighted. It is fixed by the number of hours of instructions offered per week. As per the National Credit Framework ;

1 Credit = 30 NOTIONAL CREDIT HOURS (NCH)

Yearly Learning Hours = 1200 Notional Hours (@40 Credits x 30 NCH)

30 Notional Credit Hours		
Lecture/Tutorial	**Practicum**	**Experiential Learning**
1 Credit = 15 -22 Lecture Hours	10-15 Practicum Hours	0-8 Experiential Learning Hours

1.3.2. Course of Study:

Course of study indicate pursuance of study in a particular discipline/programme. Discipline/Programmes shall offer Major Courses (Core), Minor Courses, Skill Enhancement Courses (SEC), Value Added Courses (VAC), Ability Enhancement Compulsory Courses (AECCs) and Interdisciplinary courses.

1.3.3. Disciplinary Major:

The major would provide the opportunity for a student to pursue in-depth study of a particular subject or discipline. Students may be allowed to change major within the broad discipline at the end of the second semester by giving her/him sufficient time to explore interdisciplinary courses during the first year. Advanced-level disciplinary/interdisciplinary courses, a course in research methodology, and a project/dissertation will be conducted in the seventh semester. The final semester will be devoted to seminar presentation, preparation, and submission of project report/dissertation. The project work/dissertation will be on a topic in the disciplinary programme of study or an interdisciplinary topic.

1.3.4. Disciplinary/interdisciplinary minors:

Students will have the option to choose courses from disciplinary/interdisciplinary minors and skill-based courses. Students who take a sufficient number of courses in a discipline or an interdisciplinary area of study other than the chosen major will qualify for a minor in that discipline or in the chosen interdisciplinary area of study. A student may declare the choice of the minor at the end of the second semester, after exploring various courses.

1.3.5. Courses from Other Disciplines (Interdisciplinary):

All UG students are required to undergo 3 introductory-level courses relating to any of the broad disciplines given below. These courses are intended to broaden the intellectual experience and form part of liberal arts and science education. Students are not allowed to choose or repeat courses already undergone at the higher secondary level (12^{th} class) in the proposed major and minor stream under this category.

i. **Natural and Physical Sciences:** Students can choose basic courses from disciplines such as Natural Science, for example, Biology, Botany, Zoology, Biotechnology, Biochemistry, Chemistry, Physics, Biophysics, Astronomy and Astrophysics, Earth and Environmental Sciences, etc.

ii. **Mathematics, Statistics, and Computer Applications:** Courses under this category will facilitate the students to use and apply tools and techniques in their major and minor disciplines. The course may include training in programming software like Python among others and applications software like STATA, SPSS, Tally, etc. Basic courses under this category will be helpful for science and social science in data analysis and the application of quantitative tools.

iii. **Library, Information, and Media Sciences:** Courses from this category will help the students to understand the recent developments in information and media science (journalism, mass media, and communication)

iv. **Commerce and Management:** Courses include business management, accountancy, finance, financial institutions, fintech, etc.,

v. **Humanities and Social Sciences:** The courses relating to Social Sciences, for example, Anthropology, Communication and Media, Economics, History, Linguistics, Political Science, Psychology, Social Work, Sociology, etc. will enable students to understand the individuals and their social behaviour, society, and nation. Students be introduced to survey methodology and available large-scale databases for India. The

courses under humanities include, for example, Archaeology, History, Comparative Literature, Arts & Creative expressions, Creative Writing and Literature, language(s), Philosophy, etc., and interdisciplinary courses relating to humanities. The list of Courses can include interdisciplinary subjects such as Cognitive Science, Environmental Science, Gender Studies, Global Environment & Health, International Relations, Political Economy and Development, Sustainable Development, Women's, and Gender Studies, etc. will be useful to understand society.

1.3.6. Ability Enhancement Courses (AEC): Modern Indian Language (MIL) & English language focused on language and communication skills. Students are required to achieve competency in a Modern Indian Language (MIL) and in the English language with special emphasis on language and communication skills. The courses aim at enabling the students to acquire and demonstrate the core linguistic skills, including critical reading and expository and academic writing skills, that help students articulate their arguments and present their thinking clearly and coherently and recognize the importance of language as a mediator of knowledge and identity. They would also enable students to acquaint themselves with the cultural and intellectual heritage of the chosen MIL and English language, as well as to provide a reflective understanding of the structure and complexity of the language/literature related to both the MIL and English language. The courses will also emphasize the development and enhancement of skills such as communication, and the ability to participate/conduct discussion and debate.

1.3.7. Skill Enhancement Course (SEC): These courses are aimed at imparting practical skills, hands-on training, soft skills, etc., to enhance the employability of students and should be related to Major Discipline. They will aim at providing hands- on training, competencies, proficiency, and skill to students. SEC course will be a basket course to provide skill-based instruction. For example, SEC of English Discipline may include Public Speaking, Translation & Editing and Content writing.

1.3.8. Summer Internship /Apprenticeship:

The intention is induction into actual work situations**.** All students must undergo internships / Apprenticeships in a firm, industry, or organization or Training in labs with faculty and researchers in their own or other HEIs/research institutions during the ***summer term***. Students should take up opportunities for internships with local industry, business organizations, health and allied areas, local governments (such as panchayats, municipalities), Parliament or elected representatives, media organizations, artists, crafts persons, and a wide variety of organizations so that students may actively engage with the practical side of their learning and, as a by-product, further improve their employability. Students who wish to exit after the first two semesters will undergo a 4-credit work-based learning/internship during the summer term to get a UG Certificate.

1.3.9. Indian Knowledge System:

In view of the importance accorded in the NEP 2020 to rooting our curricula and pedagogy in the Indian context all the students who are enrolled in the four-year UG programmes should be encouraged to take an adequate number of courses in IKS so that the **total credits of the courses taken in IKS amount to at least five per cent of the total mandated credits** (i.e. min. 8 credits for a 4 yr. UGP & 6 credits for a 3 yr. UGP**.** The students may be encouraged to take these courses, preferably during the first four semesters of the UG programme.

1.3.10. Experiential Learning:

One of the most unique, practical & beneficial features of the National Credit Framework is assignment of credits/credit points/ weightage to the experiential learning including relevant experience and professional levels acquired/ proficiency/ professional levels of a learner/student.

2. Award of Degree and Credit Structure with ME-ME

Award	Year	Credits to earn	Additional Credits	Re-entry allowed within (yrs)	Years to Complete
UG Certificate	1	40	4	3	7
UG Diploma	2	80	4	3	7
3-year UG Degree (Major)	3	120	x	x	x
4-year UG Degree (Honours)	4	160	x	x	x
4-year UG Degree (Honors with Research):	4	160	Students who secure cumulative 75% marks and above in the first six semesters		

3. GRADUATE ATTRIBUTES IN GEOGRAPHY

Some of the characteristic attributes of an Honors graduate in Geography include:

G A 1. Disciplinary Knowledge: Students gains in-depth knowledge of basic and applied areas of geography. Core and discipline courses train them in fundamental branches of the subject. Technical and skill courses help them to learn tools and technics. Geography student gets a unique opportunity to experiment and observe on the field.

G A 2. Complex Problem Solving: The understanding about surroundings, the issues that concerns life, climate or to that matter water crisis etc makes students yearn to look for solutions. Geography discipline has the flair which connects to everyday living and survival thus generates problem solving aptitude.

G A 3. Analytical and critical thinking: The geography course teaches variety of tools, techniques and data handling which develop analytical reasoning to solve the issues. In fact, the training in all these courses is meant to develop the analytical reasoning, mining the data from satellite images, aerial photographs, and observations to arrive at interpretations and inferences.

G A 4. Creativity: The Geography course teaches to create, perform, or think in different and diverse ways about the same objects or scenarios and deal with problems and situations that do not have simple solutions. Think 'out of the box' and generate solutions to complex problems in unfamiliar contexts by adopting innovative, imaginative, lateral thinking, interpersonal skills and emotional intelligence

G A 5. Communication Skills: Students develops effective communication skills through oral presentations, and group discussions on the subject content. Besides interviewing people, field surveys and public dealing with different cadre of people makes him/her confident in communication. The compiling, processing, and analyzing the information from the field; and presenting in the form of reports enhances written communication skills.

G A 6. Research Related Skills: Course will develop research aptitude, critical analysis of theories and models, raising critical questions about the theories and models, developing hypothesis and learning their testing. Many of the courses in geography are truly scientific in nature which will generate research aptitude and also skills to look towards new approaches.

G A 7. Collaboration**:** The course enables to develop skill to work with students of diverse backgrounds and collaborate on same topic will increase better understanding. The group assignments and presentations are essential elements in the course design that will inculcate the team spirits. The field excursions help develop great bonding, working and executing the plans on ground. They also learn to work as team in case any emergency with group member away from institution/home/or city.

G A 8. Leadership Readiness/ Quality: A good leader needs to have the knowledge, rational thinking and ready to act at the time of need. Geography encourages to have descriptive and explanatory knowledge of one's surroundings and the globe as a whole, it develops rational thinking and prepares the students to think about alternative social, economic and environmental futures. So, a geography student will

G A 9. Digital and technological skills: Geography is a discipline which is involves the learning of GIS , Remote sensing and other technological skills. The course helps to access, evaluate, and use a variety of relevant information sources and us appropriate software for analysis of data

G A 10. Environmental awareness and action: A graduate in the discipline of geography enables one to understand the ways to mitigate the effects of environmental degradation, climate change, and pollution. A student should develop the technique of effective waste management, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living.

4. The Programme Learning Outcomes (PLO) relating to B.A./B.Sc. (Honours) degree programme in Geography

The learning outcome is to prepare the students of BA/BSc Honours degree in Geography, to understand the development of the subject and delve around issues suited to the needs of the contemporary world. It covers a wide range of papers covering various themes and maintains uniformity of structure across universities in the country. Geography being interdisciplinary in nature integrates learning derived from all basic and applied sciences/social sciences.

PLO 1: Knowledge of Geography: Students of the BA/BSc Honours degree in Geography will learn to use geographic understanding of various sub fields such as physiography, resources, global economic systems, socio- cultural aspects, rural and urban milieu, environmental and disaster studies, and mapping methods.

PLO 2: Understanding of complex global problems: They will also develop an understanding of complex global issues from economic, social, environmental, and political perspectives, which has relevance in further studies across the globe.

PLO 3: Develop analytical and critical thinking with diverse perspective: After the completion of the course, students will be able to evaluate, analyze, synthesize, and critique key concepts and experiences, and apply diverse perspectives to find creative solutions to problems concerning society and the natural world

PLO 4: Develop ability to create: They will develop creativity as they will be trained to read an interpret maps and generate maps and other geographic representations as well as extract, analyze, and present information from a spatial perspective.

PLO 5: Develop effective communication skills: The course will better-equip students to face the challenges of an increasingly communicate with intercultural world, and contribute to improving tolerance within the diverse societies of India and World. They will also developzeal of exploration and investigation, travel exploration and effective communication skills and teamwork.

PLO 6: Develop research and development skills: Students will acquire knowledge of scientific methods of data handling, hypothesis generation, testing and analysis. The learners will have a general understanding of the various theoretical and methodological approaches in both physical and human geography and be able to develop research questions and critically analyze both qualitative and quantitative data to answer those questions

PLO 7: Develop team building abilty: They will also be able to learn how to underatke colloaborative works with teamwork experiences in the classroom and field excursions and use them to their advantage to further their career.

PLO 8: Develop leadership skills: Students will develop the ethical aptitudes and dispositions necessary to acquire and hold leadership positions in industry, government, and professional organizations.

PLO 9: Develop digital and technological skills: Students will be able to assess and build upon previous learning and experiences to pursue new learning, independently and in collaboration with others.

PLO 10: Develop environmental awareness and ability to address the issue: The geography graduates will be able to pursue wide range of knowledge and experience from various fields. They will be well informed citizens who can play immense role in the civil society too and also be able to pursue career as planners, administrators, academicians, and managers in the field of environmental and earth sciences.

5. Programme Specific Outcomes

1. Correlate the knowledge of physical geography with the human geography. They will analyze the problems of physical as well as cultural environments of both rural and urban areas.
2. Develop a sustainable approach towards the ecosystem and the biosphere with a view to conserve natural environment and analyze how physical environment, human societies and global economic systems are integrated to the principles of sustainable development.
3. Explain the cultural geographic processes, the global distribution of cultural mosaics, and comprehend how variations in culture and personal experiences may affect our perception and management of places and regions.
4. Identify socio-economic problems of their community through field experience envisaged in the curriculum by applying statistical and cartographic techniques, GIS and remote sensing process. Course learning outcomes are specific to the learning for a given course of study related to a disciplinary or interdisciplinary/multi-disciplinary area of learning. Some courses of study are highly structured, with a closely laid down progression of compulsory/core courses to be taken at different phases/stages of learning.

6. The Qualification Specifications:

Qualification type	**Purpose of the qualification**
Undergraduate Certificate	The students will be able to apply technical and theoretical concepts and specialized knowledge and skills in a broad rangeof contexts to undertake skilled or paraprofessional work and/or to pursue further study/learning at higher levels.
Undergraduate Diploma	The students will be able to apply specialized knowledge in a range of contexts to undertake advanced skilled or paraprofessional work and/or to pursue further learning/studyat higher levels.
Bachelor's degree	The students will be able to apply a broad and coherent body of knowledge and skills in a range of contexts to undertakeprofessional work and/or for further learning.
Bachelor's degree (Honours/ Honours with Research)	The students will be able to apply the knowledge in a specific context to undertake professional work and for research and further learning.
	The students will be able to apply an advanced body of knowledgein a range of contexts to undertake professional work and apply specialized knowledge and skills for research and scholarship, and/or for further learning relating to the chosen field(s) of learning, work/vocation, or professional practice.

7. Teaching Learning Process:

Teaching and learning in this programme involve classroom lectures, computer lab and tutorials.

It allows-

1. Tutorials and remedial classes
2. Written assignments and projects submitted by students
3. Project-based learning
4. Group discussion
5. Home assignments
6. Class tests
7. Quizzes
8. PPT presentations, Seminars, interactive sessions
9. Co-curricular activity etc.
10. Field visit

8. Programme Evaluation

1. The Programme structures and examinations shall normally be based on Semester System. However, the Academic Council may approve Trimester/Annual System for specified programmes.
2. In addition to end term examinations, student shall be evaluated for his/her academic performance in a
3. Programme through, presentations, analysis, homework assignments, term papers, projects, field work, seminars, quizzes, class tests or any other mode as may be prescribed in the syllabi. The basic structure of each Programme shall be prescribed by the Board of Studies and approved by the Academic Council.
4. Each Programme shall have a number of credits assigned to it depending upon the academic load of the Programme which shall be assessed on the basis of weekly contact hours of lecture, tutorial and laboratory classes, self-study. The credits for the project and the dissertation shall be based on the quantum of work expected.
5. Depending upon the nature of the programme, the components of internal assessment may vary. However, the following suggestive table indicates the distribution of marks for various components in a semester: -

	Components of Evaluation	**Marks**	**Frequency**	**Code**	**Weightage (%)**
A	**Continuous Evaluation**				
i	Analysis/Class test	Combination of any three from (i) to (v) with 5 marks each	1-3	C	25%
ii	Home Assignment		1-3	H	
iii	Project		1	P	
iv	Seminar		1-2	S	
v	Viva-Voce/Presentation		1-2	V	
vi	MSE	MSE shall be of 10 marks	1-3	Q/CT	
vii	Attendance	Attendance shall be of 5 marks	100%	A	5%
B	**Semester End Examination**		1	SEE	70%
	Total				**100%**

B.A/B.Sc. (H) Geography

Programme Structure
YEAR- 1

Semester 1				
Sl. No	**Subject Code**	**Names of subjects**	**Level of courses**	**Credit**
		Major Course		
1	GEO162M101	Geography of Human and Cultural Landscape	100	3
2	GEO162M102	Geomorphology	100	3
		Minor		
3	GEO162N101	Fundamentals of Physical Geography	100	3
		Interdisciplinary		
4	IKS992K101	Indian Knowledge System-I	100	3
		Ability Enhancement Compulsory Course		
5	CEN982A101	Communicative English	100	2
6	BHS982A102	Behavioral Science		
		Skill Enhancement Courses (SEC)		
7	GEO162S111	Basics of Cartography	100	3
		Value Added Courses (VAC)		
8		Basket course	100	3
		TOTAL		**20**
Sl. No	**Subject Code**	**Names of subjects**	Level of courses	**Credit**
		Major Courses		
1	GEO162M201	Climatology and Oceanography	100	3
2	GEO162M202	Geography of Tourism	100	3
		Minor		
3	GEO162N201	Fundamentals of Human Geography	100	3
		Interdisciplinary		
4	IKS992K201	Indian Knowledge System -II	100	3
		Ability Enhancement Compulsory Course		
5	CEN982A201	Communicative English	100	2
6	BHS982A202	Behavioral Science -II		
		Skill Enhancement Courses (SEC)		
7	GEO162SEC-2	Fundamentals of Geoinformatics	100	3
		Value Added Courses (VAC)		
8		Basket course	100	3
		Total		20

YEAR- 2

	Semester -3			
Sl. No	**Subject Code**	**Names of subjects**	**Level of courses**	**Credit**
		Major Course		
1	GEO162M301	Economic Geography	200	4
2	GEO162M302	Soil and Biogeography	200	4
		Minor		
3	GEO162N301	Biogeography	200	4
		Interdisciplinary		
4	GEO162IDC-3	Basket Course	200	3
		Ability Enhancement Compulsory Course		
5	CEN982A201	Communicative English	200	2
6	BHS982A202	Behavioral Science -III		
		Skill Enhancement Course		
7	GEO162S311	Introduction to Quantitative Techniques	200	3
		TOTAL		**20**
	Semester 4			
Sl. No	**Subject Code**	**Names of subjects**	**Level of courses**	**Credit**
		Major Courses		
1	GEO162M401	Social and Political Geography	200	4
2	GEO162M402	Environmental Geography	200	4
3	GEO162M403	Indian Knowledge System on Geography (IKS)	200	4
		Minor		
4	GEO162N401	Economic Geography	200	3
5	GEO162N402	Regional development	200	3
		Ability Enhancement Compulsory Course		
6	CEN982A301	Communicative English	200	2
7	BHS982A302	Behavioral Science -IV		
				20

YEAR- 3

	Semester 5			
Sl. No	**Subject Code**	**Names of subjects**	**Level of courses**	**Credit**
		Major Course		
1	GEO162M501	Regional Planning and development	300	4
2	GEO162M502	Population and settlement geography	300	4
3	GEO162M503	Disaster Management	300	4
		Minor		
4	GEO162N501	Population and political geography	300	4
		Internship		
5		6 weeks internship	300	4
		TOTAL		**20**
	Semester 6			
Sl. No	**Subject Code**	**Names of subjects**	**Level of courses**	**Credit**
		Major Courses		
1	GEO162M601	Geography of India	300	4
2	GEO162 M602	Geographical Thought	300	4
3	GEO162 M603	Agricultural Geography	300	4
4	GEO162 M604	Practical in Geography	300	4
		Minor		
5	GEO162N601	Geography of Development of India	300	4
				20

YEAR- 4

	Semester 7			
Sl. No	**Subject Code**	**Names of subjects**	**Level of courses**	**Credit**
		Major Course		
1	GEO162 M701	Geography of Rural Development	400	4
2	GEO162 M702	Urban Geography	400	4
3	GEO162 M703	Geography of North East India and Assam	400	4
4	GEO162 M704	Field Techniques in Geography	400	4
		Minor		
5	GEO162N701	Geography of North East India	400	4
		TOTAL		**20**
	Semester 8			
Sl. No	**Subject Code**	**Names of subjects**		**Credit**
		Major Courses		
1	GEO162M801	Quantitative methods in Geography	400	4
2	GEO162M803	Research Methodology	400	4
	GEO162M823	Dissertation/Research Project		
3			400	12
400 level advance core course		In lieu of Dissertation /Research Project		
	GEO162M804	Geography of Resources	400	4
	GEO162M805	Geography of Health	400	4
	GEO162M806	Geography of Transportation	400	4

Semester 1
Major course

Paper I Core Course	GEOGRAPHY OF HUMAN AND CULTURAL LANDSCAPE L-T-P-C: 3-0-0-3 Scheme of Evaluation: (T) Course Level : 100	Subject Code: GEO162M101

Course Objectives: *The objective of this course is to make the student look into the chronology of development of human geography through contribution of varied scholars, approaches and schools of human geography, major themes and components of cultural geography.*

Course Outcomes:

After successful completion of the course, the students will be able to:

Sl. No.	Course Outcome	Blooms Taxonomy Level
CO1	**Define** the various parameters and components of the sub-branch.	BT1
CO2	**Interpret** the development of a humanistic view of geography.	BT2
CO3	**Identify** the various aspects of human geography.	BT3
CO4	**Discover** the humanistic perspective and its dimensions in Geography in relation to the physical and cultural surrounding.	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Meaning, contents and Scope of Human Geography, human versus physical geography; branches of Human Geography; Development of Human Geography; Contributions of German and French Geographers.	15
Unit 2	Approaches to the study of human geography: Determinism, possibilism, human ecology, positivism, **S**chools of human geography: Ecology and landscape	15
Unit 3	Definition, Scope and Approaches of Cultural Geography; Major themes of Cultural Geography: Concept of cultural hearth, cultural region, cultural landscape and cultural integration.	15
Unit 4	Characteristics of culture, its components, and functions; Cultural diffusion and factors associated with it, Major cultural regions of the World and their characteristics.	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning
3	60 hours	30 hours
		Field visit for studying landscapes with geo-cultural significance

Text Books:

1. Huntington, E., 1951: ***Principles of Human Geography***, John Wiley & Sons, Inc, New York
2. Hussain, M., 1994: ***Human Geography***, Rawat Publication, New Delhi.

Reference books:

1. Haggett, P., 1972: Geography: A Modern Synthesis, Harper & Row, New York
2. Singh, S., 1991: Environmental Geography, PustakBhawan, Allahabad
3. Strahler, A.N. & A.H. Strahler, 1976: Geography and Man's Environment, John Willey, New York
4. Knowles, R. and Wareing, J., 1990: Economic and Social Geography, Rupa Publications India

Paper II Core Course	**GEOMORPHOLOGY** **L-T-P-C: 3-0-0-3** **Scheme of Evaluation: (T)** **Course Level : 100**	**Subject Code: GEO162C-102**

Course Objectives: *The pivotal point of this course is to make students familiar with the fundamental concepts of geomorphology which incorporates the topics related to geomorphic structure and processes, earth's interior and composition, evolution of landforms and so on.*

Course Outcomes:

After successful completion of the course, the students will be able to:

Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** the functioning of Earth systems in real time.	BT1
CO2	**Outline** the roles of structure, stage and time in shaping the landforms along with **interpreting** geomorphological maps.	BT2
CO3	**Apply** the knowledge in geographical research.	BT3
CO4	**Distinguish** between the mechanisms that control these processes and also **analyse** how the natural and anthropogenic operating factors affect the development of landforms.	BT4

Detailed Syllabus:

Modules	**Topics and Course Content**	**Periods**
Unit 1	Geomorphology: Nature, Scope, key concepts and theories of landform development, Systems approach	15
Unit 2	Composition of the Earth with special reference to seismology; Earth's Interior and its Structure, Earth Movements: Isostasy, Plate Tectonics, Types of Folds and Faults, Earthquakes and Volcanoes.	15
Unit 3	Geomorphic Processes: Weathering, Mass Wasting, Cycle of Erosion (Views of Davis and Penck); Profile drawing (Serial, Superimposed, Composite, Projected) -	15
Unit 4	Evolution of Landforms (Erosional and Depositional): Fluvial, Karst, Aeolian and Glacial; Applied Geomorphology; Drainage basin delimitation, Ordering of streams, calculation of bifurcation ratio, length ratio, computation of basin circularity ratio	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning
3	60 hours	30 hours
		Field visit for studying landforms of geomorphic significance

Text Books:

1. Ahmed, E., 1985: ***Geomorphology***, Kalyani Publishers, New Delhi
2. Singh, Savindra., 1998: ***Geomorphology***, Pravalika Publications, Allahabad, Uttar Pradesh.
3. Thornbury W.D., 2004: Principles of Geomorphology, CBS, India

Reference Books:

1. Bridges E. M., 1990: *World Geomorphology*, Cambridge University Press, Cambridge.
2. Dayal, P. (2nd Ed.) 1996, A Textbook of Geomorphology, Shukla Book Depot, Patna
3. Khullar D.R. 2012: Physical Geography, Kalyani Publishers, New Delhi
4. Bloom A. L., 2003: ***Geomorphology: A Systematic Analysis of Late Cenozoic Landforms***, Prentice-Hall of India, New Delhi.

Minor

Paper: Minor course	**FUNDAMENTALS OF PHYSICAL GEOGRAPHY** **L-T-P-C: 3-0-0-3 Scheme of Evaluation: (T) Course Level : 100**	**Subject Code: GEO162M-101**

Course Objectives: *The course aims to make students aware about physical surroundings (landforms, climate, ecosystems and oceanic landforms) their processes and patterns on the earth's surface and acquire knowledge on Ecological balance, Global climatic changes and consequences.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** the basic terms and terminologies related to physical earth.	BT1
CO2	**Compare** different global climatic patterns, climate change and its related consequences.	BT2
CO3	**Identify** physical processes and the resultant environment and its impact which shapes our life on planet earth.	BT3
CO4	**Examine** ecological, climatic and atmospheric phenomena of the earth.	BT4

Detailed Syllabus:

Modules	**Topics and Course Content**	**Periods**
Unit 1	Nature, Scope and branches of Physical Geography; Processes of landform development - Exogenic and endogenic processes; Earth materials- Composition of the earth's crust, Rocks and minerals (3); Concept of Cycle of Erosion (1)	15

Unit 2	The lithosphere and Plate Tectonics; Distribution of plants and animals, Structure, functioning and material cycles of Ecosystem, Ecological Balance, Traditional ecological knowledge	15
Unit 3	Elements and factors of weather and climate; Structure and Composition of Atmosphere; Air Circulation, Pressure Systems, Cyclones and anticyclones, Global Climatic patterns and Climatic change and its consequences.	15
Unit 4	Bottom Configuration of oceans with special reference to the Atlantic Ocean, Distribution of salinity, temperature and ocean deposits and resources, and ocean Currents.	15
		60

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning
3	60 hours	30 hours
		Field work and report making

Text Books:

1. Ahmed, E., 1985: ***Geomorphology***, Kalyani Publishers, New Delhi
2. Bloom A. L., 2003: ***Geomorphology: A Systematic Analysis of Late Cenozoic Landforms***, Prentice-Hall of India, New Delhi.
3. Singh, Savindra., 1998: ***Geomorphology***, Pravalika Publications, Allahabad, Uttar Pradesh.

Reference Books:

1.Bridges E. M., 1990: *World Geomorphology*, Cambridge University Press, Cambridge.

1. Dayal, P. (2nd Ed.) 1996, A Textbook of Geomorphology, Shukla Book Depot, Patna
2. Khullar D.R. 2012: Physical Geography, Kalyani Publishers, New Delhi

SEC

Paper SEC Course	**Basics of Cartography** **L-T-P-C: 0-0-6-3 Scheme of Evaluation: (T) Course Level : 100**	**Subject Code:** GEO162S111

Course Objectives: *This course primarily focuses on the basic concepts of art and science cartography and map making in geographical study.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Recall** knowledge regarding the classification and elements of maps.	BT1
CO2	**Interpret** graphs and prepare qualitative and quantitative thematic maps.	BT2
CO3	**Apply** the maps for the proper utilization in the process of development.	BT3
CO4	**Examine** the preparation of various thematic maps with the application of various techniques.	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Cartography: meaning, trends of development and importance in geography; Map: definition, types, basic characteristics and map symbols; Thematic Mapping: concept and characteristics of Isopleth, Choropleth and Chorochromatic.	15
Unit 2	Concept and types of Map Scale; conversion of map scale from one to another; construction of graphical scale; representation of data through pie graph, sphere graph, bar graph and line graph.	15
Unit 3	Interpretation of topographical maps in terms of physical and cultural features; construction of transect chart.	15
Unit 4	Map Projection: definition, classification and principles of construction- Zenithal Polar, Gnomonic Projection, Gall's Projection, Stereographic Cylindrical Projection and Simple Conical Projection with one standard parallel; Mapping of slope by Wentworth's method; Profile Drawing: Serial, Superimposed, Composite and Projected.	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Practicum	Experiential Learning
3	-	90 hours	-

Text Books:

1. Cuff J. D. and Mattson M. T., 1982: ***Thematic Maps: Their Design and Production***, Methuen Young Book
2. Dent B. D., Torguson J. S., and Holder T. W., 2008: ***Cartography: Thematic Map Design (6th Edition)***, Mcgraw-Hill Higher Education

Reference books:

1. Gupta K. K. and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi. 4.
2. Kraak M.-J. and Ormeling F., 2003: Cartography: Visualization of Geo-Spatial Data, Prentice-Hall
3. Mishra R. P. and Ramesh A., 1989: Fundamentals of Cartography, Concept, New Delhi.
4. Tyner J. A., 2010: Principles of Map Design, The Guilford Press
5. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
6. Sarkar, A., 2000: Practical Geography: A Systematic Approach, Orient BlackSwan, India.
7. Monkhouse, F. J., and Wilkinson, H. R., 2022: Maps and Diagram: Their Compilation and Construction, Alphanumera Publisher.

B.A/B. Sc. (Honours) Course in Geography: Semester-II

Major (Course)

Paper I Core Course	**CLIMATOLOGY AND OCEANOGRAPHY** **L-T-P-C: 3-0-0-3 Scheme of Evaluation: T Course Level : 200**	**Subject Code: GEO162M201**

Course Objectives: *The course aims to illustrate the atmospheric elements, processes and resultant weather and climates, the impact of climates on planet earth, the oceanic processes, ocean floor topography and marine resources.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** the elements of weather and climate and its impacts at different scales.	BT1
CO2	**Demonstrate** weather charts, hythergraph and other similar practical exercises.	BT2
CO3	**Develop** the climatic aspects and its bearing on planet earth and the oceanic process and availability of resources.	BT3
CO4	**Distinguish** between the different aspects of climatic and oceanic terms.	BT4

Detailed Syllabus:

Modules	**Topics and Course Content**	**Periods**
Unit 1	The structure and composition of Earth's atmosphere; Elements of weather and climate; Factors affecting the distribution of temperature; Vertical and horizontal and seasonal distribution of temperature; Insolation and heat budget; Temperature inversion; Atmospheric pressure and circulation of planetary winds; Air masses and their characteristics	15
Unit 2	Cyclones: Tropical Cyclones, Temperate Cyclones, Monsoon - Origin and Mechanism, Jet Streams; Atmospheric Moisture: Evaporation, Humidity, Condensation, Fog and Clouds, Precipitation Types, Stability and Instability; Climatic Regions, Climate change and global warming, El Nino	15
Unit 3	Ocean floor topography of Indian, Atlantic and Pacific oceans; Oceanic water Movements: Waves, Currents, Tsunamis and Tides; rainfall frequency analysis, water deficiency and surplus graph, weather chart interpretation,	15
Unit 4	Salinity and Temperature of ocean water: Distribution and Determinants; Coral Reefs , Marine Deposits and Ocean Resources.	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning
3	60 hours	30 hours
		Field visit to weather stations for micro-climatic study

Text Books:

1. Critchfield, H. J., 1987: ***General Climatology***, Prentice-Hall of India, New Delhi
2. Lal, D.S., 2001, ***Climatology***, Chaitanya Publishing House, Allahabad
3. Vatal, M., and Sharma, R.C., 2018: Oceanography for Geographers, Surjeet Publications, India.

Reference Books:

1. Anikouchine W. A. and Sternberg R. W., 1973: The World Oceans: An Introduction to Oceanography, Prentice-Hall.
2. Barry, R. G. and Carleton , A. M., 2001: *Synoptic and Dynamic Climatology*, Routledge, UK.
3. Barry, R. G. and Chorley, R. J., 1998: *Atmosphere, Weather and Climate*, Routledge, New York.
4. Batten L. J., 1979: Fundamentals of Meteorology, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
5. Boucher K., 1975: Global Climates, Halstead Press, New York.
6. Garrison T., 1998: Oceanography, Wordsworth Company, Belmont.
7. Gerald S., 1963: General Oceanography: An Introduction, John Willey & Sons, New York.
8. Kershaw S., 2000: *Oceanography: An Earth Science Perspective*, Stanley Thornes, UK.
9. King C. A. M., 1962: *Oceanography for Geographers*, Edward Arnold.
10. Lutgens F. K., Tarbuck E. J. and Tasa D., 2009: The Atmosphere: An Introduction to Meteorology, Prentice-Hall, Englewood Cliffs, New Jersey.
11. Oliver J. E. and Hidore J. J., 2002: Climatology: An Atmospheric Science, Pearson_Education, New Delhi.
12. Pinet P. R., 2008: Invitation to Oceanography (Fifth Edition), Jones and Barlett_Publishers, USA, UK and Canada.
13. Singh, S. Climatology, 2007, Sharada Pustak Bhawan, Allahabad
14. Strahler, Arthur. N., 1987: *Modern Physical Geography*, John Wiley and Sons, New York,
15. Singapore.
16. Strahler, A., 2018: Introducing *Physical Geography*, John Wiley and Sons, New York, Singapore.
17. Sharma R. C. and Vatal M., 1980: *Oceanography for Geographers*, Chaitanya Publishing House, Allahabad.
18. Trewartha G. T. and Horne L. H., 1980: *An Introduction to Climate*, McGraw-Hill.
19. Thurman H. V., 1996: *Essentials of Oceanography*, Prentice-Hall, New Jersey

Interdisciplinary Course	GEOGRAPHY OF TOURISM L-T-P-C: 3-0-0-3 Scheme of Evaluation: T Course Level : 200	Subject Code: GEO162M202

Course Objectives: *The course aims to make the students define the basic theme and concepts of tourism geography and interpret the geographical components of tourism.*

Learning Outcome:

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** the geographical aspects that organise economic space.	BT1
CO2	**Illustrate** the geographical aspects of tourism in an area.	BT2
CO3	**Develop** practical field knowledge about tourist places across India.	BT3
CO4	**Analyse** the knowledge gathered through field visits and prepare their respective reports.	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Meaning, Scope and contents of Geography of tourism: Importance of geography of tourism; Types of tourism; Motivations of tourism; Components of Tourism;	15
Unit 2	Impacts of tourism: Environmental, Social, Cultural, and Economic impacts of tourism; Definition and principles of sustainable tourism development; Concept of carrying capacity; Concept of Responsible tourism	15
Unit 3	Tourism resources: Destination and resource factors; Mass tourism vs. alternative tourism; Ecotourism; Spatial pattern of Tourism Resources in India-National Parks, Wildlife sanctuaries, Tiger Reserves, Biosphere reserves & wetlands, history and culture	15
Unit 4	Major Tourist attractions in India and abroad, Leiper's tourism model, Current trends of tourism at global scale. Visit to place of sustainable tourism significance. On completion of the tour, the students have to submit a tour report along with an oral presentation.	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning
3	60 hours	30 hours
		Field visit to tourism sites and study of sustainable tourism management

Text Books:

1. Bhatia, A. K., 1996***: Tourism Development: Principles and Practices,*** Sterling Publishers, New Delhi.
2. Sharma J. K. (ed.), 2000: ***Tourism Planning and Development - A new perspective***, Kanishka Publishers, New Delhi.

Reference Books:

1. Robinson, H., 1996: ***A Geography of Tourism***. Macdonald and Evans, London, 1996.
2. Williams Stephen, 1998: ***Tourism Geography***, Routledge, Contemporary Human
3. Geography Series, London.
4. Shaw G. and Williams A. M., 1994: ***Critical issues in Tourism-A Geographical Perspective***, Oxford: Blackwell

Minor

Paper I Core Course	**Fundamentals of Human Geography** **L-T-P-C: 3-0-0-3 Scheme of Evaluation: T Course Level : 200**	**Subject Code: GEO162N201**

Course Objectives: *The objective of this course is to make the student look into the chronology of development of human geography through contribution of varied scholars, approaches and schools of human geography, major themes and components of cultural geography.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** the various parameters and components of the sub-branch.	BT1
CO2	**Interpret** the development of a humanistic view of geography.	BT2
CO3	**Identify** the various aspects of human geography.	BT3
CO4	**Discover** the humanistic perspective and its dimensions in Geography in relation to the physical and cultural surrounding.	BT4

Detailed Syllabus:

Modules	**Topics and Course Content**	**Periods**
Unit 1	Meaning, subject matter and Scope of Human Geography, human versus physical geography; branches of Human Geography; Development of Human Geography; Contributions of German and French Geographers. Man-environment relationship, Determinism vs possibilism,	15
Unit 2	World population distribution and growth, components of population growth: fertility, mortality, migration, : Basic concepts of population: under population, optimum population, over population, Concept of population explosion and population pressure,	15
Unit 3	Population composition: age, sex, child women ratio and other related factors, Population policies in developed and developing economies, Population resource relationship, population-resource regions	15
Unit 4	Man and culture, Characteristics of culture, its components and functions; Cultural diffusion and factors associated with it, concept of cultural landscape, Major cultural regions of the World and their characteristics.	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning
3	60 hours	30 hours
		Field work and report making

Text Books:

1. Huntington, E., 1951: ***Principles of Human Geography***, John Wiley & Sons, Inc, New York
2. Hussain, M., 1994: ***Human Geography***, Rawat Publication, New Delhi.

Reference books:

3. Haggett, P., 1972: Geography: A Modern Synthesis, Harper & Row, New York
4. Singh, S., 1991: Environmental Geography, Pustak Bhawan, Allahabad
5. Strahler, A.N. & A.H. Strahler, 1976: Geography and Man's Environment, John Willey, New York

SEC

SEC	**FUNDAMENTALS OF GEOINFORMATICS** **L-T-P-C: 3-0-0-3 Scheme of Evaluation: T Course Level : 200**	**Subject Code: GEO162S201**

Course Objectives: *The course aims to make student interpret the data, tools and technology and applications of Geoinformatics - GIS, Remote Sensing and GPS and Construct and Analyse maps using Geospatial Technology (Geoinformatics)*

Course Outcomes:

After successful completion of the course, the students will be able to:

Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** the fundamental terms and terminologies of Geoinformatics.	BT1
CO2	**Outline** the strength and application of Geospatial Technology.	BT2
CO3	**Build** map of the resources, their location and availability.	BT3
CO4	**Analyse** the different remote sensing data sets collected from various platforms.	BT4

Detailed Syllabus:

Modules	**Topics and Course Content**	**Periods**
Unit 1	Geoinformatics- Meaning and scope, The Earth: shape, size, and earth models; Referencing systems; Definition of map, map properties, Geospatial data types and structure and their characteristics;	15
Unit 2	Basic concept of Remote Sensing; Satellites – geostationary and remote sensing Satellites; Platforms and Sensors:Types and characteristics; Concept of Scale, Resolution: spatial, spectral, radiometric and temporal; Coordinate systems	15
Unit 3	Introduction to GIS; Types of data: Vector and raster, Basics of spatial and non-spatial / attribute database, Global Position System (GPS) and its applications, open source GIS	15

Unit 4	c. Applications of Geoinformatics in Urban planning and management, Environmental monitoring and management , Introduction to Drone survey (UAV) and mapping	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
3	60 hours	30 hours	3
		Hands on practice in Lab and assignment preparation	

Experiential Learning :

1. Study of topographic sheets (contour patterns, geomorphic features), aerial photographs (stereovision with stereoscope), satellite Imageries (temporal variations)
2. Georeferencing and digitisation
3. Use of hand held GPS for determination of location and direction
4. Field visit for ground truth verification

Text Books:

1. De Mars, M. N., 1999: **Fundamentals of Geographic Information Systems**, John Wiley & Sons Inc., New York.
2. Jensen, J. R., 2011: **Remote Sensing of the Environment – An Earth Resource Perspective**, 3rd Impression, Pearson, New Delhi.

Reference Books:

1. Burrough, P.A. and Mc Donnel, R. A., 1998: **Principles of Geographical Information Systems**, Oxford University Press.
3. Chetry, N., 2019 (Ed): A Glimpse of Geospatial Technology and Applications, Eastern Book House, Guwahati
4. Sabins, Floyd F., 1987: **Remote Sensing Principles and Interpretation**, W.H. Freeman and Company, New York.
5. Chang, K. T., 2018: Introduction to Geographic Information Systems, McGraw-Hill Education, New York.

NOTE: Software packages: ArcGIS / QGIS /ILWIS, ERDAS Imagine/SAGA/ILWIS. Record of the exercises (duly signed by the teacher concerned within specified date for each exercise) in the form of Practical Note Book to be made by the students is mandatory. Records of all exercises of each unit is compulsory. Maximum 20-25% marks of Semester End Examination may be kept for viva and practical note book with equal weightage on each aspect. Rest of the marks may be more or less / equally distributed to each exercise depending on difficulty level. Semester End Examination will be of 4 (four) hours duration with maximum 2 (two) exercises only from any of the units

Semester 3

MAJOR	ECONOMIC GEOGRAPHY L-T-P-C: 3-1-0-4 Credit Units: 4 Scheme of Evaluation: (T)	Subject Code: GEO162 M301

Course Objectives: *It focuses on the basic concepts of economic geography and its associated patterns and processes of the prime economic activities of the world.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** concepts and ways on how geographical aspects organise economic space.	BT1
CO2	**Compare** different sectors of economy and arrive at logical conclusion regarding importance of each sector in economic development of the nation.	BT2
CO3	**Identify** the principles and significance of economic geography.	BT3
CO4	**Discover** new insights among students on the relevance of economy and geography and associated problems in contemporary times.	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Meaning and scope of Economic Geography; Approaches in Economic Geography; Concept and classification of economic activity; factors influencing economic activities.	15
Unit 2	Primary Activities: Subsistence and Commercial agriculture, forestry, fishing and mining; Secondary Activities: Manufacturing (Cotton Textile, Iron and Steel), Concept of Manufacturing Regions; Special Economic Zones and Technology Parks; Tertiary Activities: Transport, Trade and Services.	15
Unit 3	Theories of Economic Geography: Von Thunen's model of agricultural location, Industrial location theories of Weber, E.M. Hoover, A. Losch, A. Pred and D. M. Smith; Theories of economic development by Myrdal and Rostow.	15
Unit 4	Economic Geography of Resources; Global pattern of distribution and production of selected resources: Food grains, iron ore, coal, petroleum and nuclear power; Global economic scenario.	15
	Total	**60**

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Hands on practice in Lab and assignment preparation	

Text Books:

1. Alexander J. W., 1963: ***Economic Geography***, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
2. Coe N. M., Kelly P. F. and Yeung H. W., 2007: ***Economic Geography: A Contemporary Introduction***, Wiley-Blackwell.

Reference Books:

1. Wheeler J. O., 1998: *Economic Geography*, Wiley..
2. Durand L., 1961: *Economic Geography*, Crowell.
3. Bagchi-Sen S. and Smith H. L., 2006: *Economic Geography: Past, Present and Future*, Taylor and Francis.
4. Willington D. E., 2008: *Economic Geography*, Husband Press.
5. Clark, G. L., Feldman, M. P., Gertler, M. S., & Williams, K. (Eds.). (2003). *The Oxford handbook of economic geography*. Oxford University Press

MAJOR	SOIL AND BIOGEOGRAPHY L-T-P-C: 3-1-0-4 Credit Units: 4 Scheme of Evaluation: (T)	Subject Code: GEO162M302

Course Objectives: *The course aims to make students understand the fundamental concept of soil and biogeography under various categories.*

Course Outcomes:

By the end of this course the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** and understand the basic terms and concepts of soil and biogeography.	BT1
CO2	**Interpret** the important issues pertaining to environment.	BT2
CO3	**Construct** the basic properties, morphology and other properties associated with soil and biogeography.	BT3
CO4	**Analyse** independently the various biodiversity conservation and management issues.	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Soil geography: meaning and significance; Soil forming factors: Parent material, organic, climatic, topographic, spatio-temporal dimensions; Processes of soil formation and soil development: Physical, biotic and chemical; Soil profile development	15
Unit 2	Physical properties of soils: Morphology, texture, structure, water, air, temperature and other properties of soil; chemical properties of soil and soil reaction; pedogenic regimes; podzolization, laterization, calcification and gleization.	15
Unit 3	Biogeography: meaning and significance, Approaches in biogeography: evolutionary and ecological; Eco-system: Concept, types and components, structure and functions; Ecology – Concept and Principles	15
Unit 4	Concept of biodiversity; Conservation of biotic resources; Biodiversity hotspots; State of forest cover changes in India, environment policy of India, National Forest Policy of India, Sustainable Development Goals	15
	Total	**60**

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Hands on practice in Lab and assignment preparation	

Text Books:

1. Hugget, R. J., 1988: Fundamentals of Biogeography. Routledge, London.
2. Bunting, B. T., 1967: The Geography of Soil, Hutchinson, London.
3. Robinson, H., 1982: Biogeography, E.L.B.S., Mc Donald & Evans, London.
4. Sivaperuman, Chandrakasan et al., (2018): Biodiversity and Climate Change Adaptation in Tropical Islands, Academic Press, London.

Reference Books:

1. Barry, C., 1977: Biogeography - An Ecological and Evolutionary Approach, Cox Blackwell, Oxford.
2. Singh, S. 1991: Environmental Geography, Prayag Publications, Allahabad
3. Tivy, J. 1992: Biogeography: A study of Plants in Ecosphere, 3rd edn. Oliver and Boyd, U.S.A.

Minor	**BIOGEOGRAPHY** **L-T-P-C: 3-1-0-4** **Credit Units: 4** **Scheme of Evaluation: (T)**	**Subject Code:** **GEO162N301**

Course Objectives: *The course aims to make students understand the fundamental concept of biogeography under various categories.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** and understand the basic terms and concepts of biogeography.	BT1
CO2	**Interpret** the important issues pertaining to environment.	BT2
CO3	**Construct** the basic concepts of biogeography.	BT3
CO4	**Analyse** independently the various biodiversity conservation and management issues.	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Nature, scope and subject matter of biogeography, ecology, ecosystem, trophic level, food chain and energy flow in ecosystem, nutrient cycle	15
Unit 2	Biomes, distribution of plants and animal, ecological regions with special reference to India	15
Unit 3	Biodiversity, biodiversity hot spot, conservation of biodiversity and mechanism: national park, marine national park, wildlife sanctuary, reserve forest, bird sanctuary; with special reference to India	15
Unit 4	Conservation of the environment, important environmental days, EIA, UNFCC, UNCED, environmental policies in India.	15
		60

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Hands on practice in Lab and assignment preparation	

Text Books:

1. Odum, E.P., 1977: ***Fundamentals of Ecology***
2. Bhattacharya, N.N., 2003, ***Biogeography***, Rajesh Publications, New Delhi.

Reference Books:

1. Lomolino, M. V., Riddle, B. R., Whittaker, R. J. (2017). Biogeography, fifth edition. (5), 730. Sunderland, MA: Oxford University Press.
2. Savindra, S., 2015, Environmental Geography, Pravalika Publications, Allahabad.
3. Anderson: Ecology for Environmental Science.

SEC	INTRODUCTION TO QUANTITATIVE TECHNIQUES	Subject Code:
	L-T-P-C: 0-0-6-3 **Credit Units: 3** **Scheme of Evaluation: (P)**	**GEO162S311**

Course Objectives: This **course** helps to understand the importance of data in geography.

- It deals with the methods and techniques of data collection, data tabulation, data interpretation and analysis.
- This paper provides an understanding of the pure and applied nature of Geography along with the key elements in the discipline.

Course Outcomes:

After successful completion of the course, the students will be able to:

Sl. No.	Course Outcome	Blooms Taxonomy Level
CO1	**Define** and understand understand of the statistical methods and quantitative techniques used in Geography	BT1
CO2	**Interpret** various types of data	BT2
CO3	**Construct** different types of graphs.	BT3
CO4	**Analyse** various types of geographical data	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Introduction to Quantitative Geography, Types of data: Primary and secondary, Use of Data in Geography, Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).	15
Unit 2	Sampling: Purposive, Random, Systematic and Stratified and their utilities in geographical data collection and analysis Summarization of grouped and ungrouped data: Measures of Central Tendency (Mean, Median and Mode), Dispersion (Standard Deviation, Variance and Coefficient of Variation).	15

Unit 3	Time series analysis techniques: Moving average and Least Squares Methods; Basic Correlation analysis (Spearman's Rank correlation and Karl Pearson's product moment correlation coefficient);	15
Unit 4	Bivariant plots and Identification of anomalies, Regression analysis in geographic studies (linear and non-linear); regression residual mapping,	15
	Total	**60**

Notional Credit Hours for the course: 30X3= 90

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
3	60 hours	30 hours	3
		Hands on practice in Lab and assignment preparation	

Text Book:

1. Berry B. J. L. and Marble D. F. (eds.): *Spatial Analysis – A Reader in Geography*.
2. Ebdon D., 1977: *Statistics in Geography: A Practical Approach*.
3. Gregory, S. (2014). *Statistical methods and the geographer*. Routledge.
4. Hammond P. and McCullagh P. S., 1978: *Quantitative Techniques in Geography: An Introduction,* Oxford University Press.
5. King L. S., 1969: *Statistical Analysis in Geography*, Prentice-Hall.

References:

1. Mahmood A., 1977: *Statistical Methods in Geographical Studies,* Concept.
2. Monkhouse, F.J. &Wilkinson,H.R.,1989: Maps and Diagrams, B.I Publication, New Delhi
3. Pal S. K., 1998: *Statistics for Geoscientists*, Tata McGraw Hill, New Delhi.
4. Sarkar, A. (2013) Quantitative geography: techniques and presentations. Orient Black Swan Private Ltd., New Delhi
5. Silk J., 1979: *Statistical Concepts in Geography*, Allen and Unwin, London.
6. Spiegel M. R.: Statistics, *Schaum's Outline Series.*
7. Yeates M., 1974: *An Introduction to Quantitative Analysis in Human Geography*, McGraw Hill, New York.

Type of Course: AEC **(w.e.f. 2023-24) UG programmes Semester: 3rd Course Code:** CEN982A301

Course Title: CEN III – Fundamentals of Business Communication

Total credits: 1

Course level: 200

L-T-P-C: 1-0-0-1

Scheme of Evaluation: Theory and Practical

Course Objective: The aim if the course is to develop essential business communication skills, including effective writing, speaking, and interpersonal communication, to enhance professional interactions, collaboration, and successful communication strategies within diverse corporate environments.

Course Outcomes: On successful completion of the course the students will be able to:

SI No	Course Outcome	Blooms Taxonomy Level
CO 1	Define and list business documents using appropriate formats and styles, demonstrating proficiency in written communication for various business contexts.	**BT 1**

CO 2	Demonstrate confident verbal communication skills through persuasive presentations, active listening, and clear articulation to engage and influence diverse stakeholders.	**BT 2**
CO 3	Apply effective interpersonal communication strategies, including conflict resolution and active teamwork, to foster positive relationships and contribute to successful organizational communication dynamics	**BT 3**

Detailed Syllabus		
Units	**Course Contents**	**Periods**
I	**Business Communication: Spoken and Written** • The Role of Business Communication • Classification and Purpose of Business Communication • The Importance of Communication in Management • Communication Training for Managers • Communication Structures in Organizations • Information to be Communicated at the Workplace • Writing Business Letters, Notice, Agenda and Minutes	**5**

II	**Negotiation Skills in Business Communication**
	• The Nature and Need for Negotiation
	  ○ Situations requiring and not requiring negotiations
	• Factors Affecting Negotiation
	  ○ Location, Timing, Subjective Factors
	• Stages in the Negotiation Process
	  ○ Preparation, Negotiation, Implementation
	• Negotiation Strategies
		5

III	**Ethics in Business Communication** • Ethical Communication • Values, Ethics and Communication • Ethical Dilemmas Facing Managers • A Strategic Approach to Business Ethics • Ethical Communication on Internet • Ethics in Advertising	**5**
IV	**Business Etiquettes and Professionalism** • Introduction to Business Etiquette • Interview Etiquette • Social Etiquette • Workplace Etiquette • Netiquette	**5**

Te**xt:**

1. *Business Communication* by Shalini Verma

References:

1. *Business Communication* by PD Chaturvedi and Mukesh Chaturvedi
2. *Technical Communication* by Meenakshi Raman and Sangeeta Sharma

Credit Distribution		
Lecture/Tutorial	**Practicum**	**Experiential Learning**
15 hours	-	10 hours - Group Discussion - Presentation - Quiz - Case Study

Subject Name: Behavioural Sciences -III

Course code: BHS982A304

Credit: 1

Course objectives: To increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations .To enable the students to understand the process of problem solving and creative thinking.

Course outcomes: On completion of the course the students will be able to:

CO1: Understand the process of problem solving and creative thinking.

CO2: Develop and enhance of skills required for decision-making.

Modules	**Course Contents**	**Periods**
I	**Problem Solving Process** Defining problem, the process of problem solving, Barriers to problem solving(Perception, Expression, Emotions, Intellect ,surrounding environment)	**4**
II	**Thinking as a tool for Problem Solving** What is thinking: The Mind/Brain/Behaviour Critical Thinking and Learning: -Making Predictions and Reasoning. -Memory and Critical Thinking. - Emotions and Critical Thinking.	**4**

III	**Creative Thinking** - Definition and meaning of creativity, - The nature of creative thinking :Convergent and Divergent thinking, - Idea generation and evaluation (Brain Storming) - Image generation and evaluation. - The six-phase model of Creative Thinking: ICEDIP model	**4**
IV	**Building Emotional Competence** Emotional Intelligence – Meaning, components, Importance and Relevance Positive and Negative emotions Healthy and Unhealthy expression of emotions	**4**
Total		**16**

Text books:

- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 3, Management; Pfeiffer &Company
- Blair J. Kolasa, Introduction to Behavioural Science for Business, John Wiley & Son

Semester 4

Major	SOCIAL AND POLITICAL GEOGRAPHY			Subject Code:
	L-T-P-C: 3-1-0-4	Credit Units: 4	Scheme of Evaluation: (T)	GEO162M401

Course Objectives: *The course aims to make students understand the basic concepts related to social and cultural geography in the geographical framework and provide knowledge on the political system and geopolitics of the world in the spatial context.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**BT Level**
CO1	**Define** the fundamental concepts of social and political dimensions.	BT1
CO2	**Interpret** the social, cultural, and political concepts in a broader and analytical manner	BT2
CO3	**Build** knowledge on structures, formations of countries as well as on various schools of political geography	BT3
CO4	**Analyze** the socio-cultural and political theme in the geographical dimensions	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Definition and field of social geography; Concept of social differentiation, social structure and social stratification as reflected in race, tribe, caste, language, dialect and religion in India; concept of social well-being and its determination, Concept of Space: Types and characteristics of space.	15
Unit 2	Review of five year plans and area plans towards social policy in India; Strategies to improve social well-being in tribal, hill, drought and flood-prone areas; Spatial distribution of social groups in India	15
Unit 3	Nature, scope and subject matter of political geography; Approaches to the study of political geography, The field and school of thoughts in political geography: landscape school, ecology school	15
Unit 4	Concepts in political geography: frontier and boundary (with reference to India), lebensraum, state and nation, core-periphery and capital, buffer zone, federal state, Colonialism, desalinization, theories of Rim-land and Heartland.	15
	Total	**60**

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Assignment preparation and presentation	

Text Books:

1. Sen, J (2016): ***A Textbook of Social and Cultural Geography***, Kalyani Publishers, New Delhi
2. Dwiveda R. L. (2019): ***Fundamentals of Political Geography***, Surjeet Publications, Delhi

Reference Books:

1. John R. S., 1982: An introduction to Political Geography, Routledge, London
2. Ahmad, A., 1999: Social Geography, Rawat Publication, Jaipur and New Delhi
3. Ahmad, A. (ed), 1993: Social Structure and Regional Development: A Social Geography perspective, Rawat Publication, Jaipur
4. Pounds N .J. G. (1972): ***Political Geography***, McGraw Hill, New York

MAJOR	ENVIRONMENTAL GEOGRAPHY			Subject Code:
	L-T-P-C: 3-1-0-4	Credit Units: 4	Scheme of Evaluation: (T)	GEO1M402

Course Objectives: *The course aims to give the idea of the concept of global environment and its impact on various aspects, along with providing knowledge on adaptation and mitigation of climate impacts and also to know institutional role in it.*

Course Outcomes:

By the end of this course the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Relate** to basics of science of environmental change and sustainable development.	BT1
CO2	**Classify** different types of natural resources and its importance.	BT2
CO3	**Develop** understanding about various impacts of Climate Change on Agriculture and Water, Flora and Fauna, Human Health, ozone layer and other spheres of environment.	BT3
CO4	**Inspect** upon the issues of adaptation and mitigation from hazards and management of solid wastes.	BT4
CO5	**Explain** the policies of development and environmental protection in developed and developing countries.	BT5

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Environmental Geography: Concept, Scope and Significance; Human-Environment Relationships: Historical Progression, Adaptation in different Biomes.	15
Unit 2	Forms and functions of ecosystem: Forest and mountain ecosystem; trophic level, Energy flux in the ecosystem; material Cycles / bio- energy cycles in the terrestrial ecosystem, concept of food chain, food web and ecological pyramid	15
Unit 3	Major Global Environmental Problems: Pollution, Deforestation, Desertification, Global Warming, Bio-Depletion. Management of Environment and Resources; Importance of Environmental Impact Assessment,	15
Unit 4	Environmental Programmes and Policies – Global, National and Local levels; Stockholm Conference, the Earth Summits, Inter- Governmental Panel for Climate Change (IPCC), Environmental Laws in India: Wild life Act, Forest Acts, Environmental Protection Act, Environmental Impact Assessment, Ramsar Site, Wetland complexes	15
	Total	**60**

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Assignment preparation and presentation	

Text Book:

1. Chandna R. C., 2002: *Environmental Geography*, Kalyani, Ludhiana.
2. Miller G. T., 2004: *Environmental Science: Working with the Earth, Thomson*BrooksCole, Singapore.
3. Goudie A., 2001: *The Nature of the Environment*, Blackwell, Oxford.
4. MoEF, 2006: *National Environmental Policy-2006*, Ministry of Environment and Forests, Government of India.

References:

1. Odum, E. P. et al, 2005: *Fundamentals of Ecology*, Ceneage Learning India.
2. Singh S., 1997: *Environmental Geography*, PrayagPustakBhawan, Allahabad.
3. Singh, R.B. (Eds.) (2009) *Biogeography and Biodiversity*. Rawat Publication, Jaipur
4. Singh, R.B. (1998) *Ecological Techniques and Approaches to Vulnerable Environment*, New Delhi, Oxford & IBH Pub

MAJOR IKS	**Indian Knowledge Systems on Geography**			**Subject Code:**
	L-T-P-C: 3-1-0-4	**Credit Units: 4**	**Scheme of Evaluation: (T)**	**GEO162M403**

Learning objective*: The objective of this course is to make the student look into the chronology of development of the subject of geography through contribution of varied scholars, approaches and schools, major themes and components of geography.*

Learning Outcomes:

After successful completion of the course the students will be able to:		
SI No.	**Course Outcome**	**BTLevel**
CO 1.	**Define** the various contributions of scholars in the field of Geography in India.	**BT 1**
CO 2.	**Interpret** the significance of geographical consciousness in India.	**BT 2**
CO 3.	**Identify** the various Indian traditions associated with earth elements.	**BT 3**
C0 4.	**Discover** the physical and humanistic perspective and its dimensions in Geography in relation to the physical and cultural surrounding	**BT 4**
CO 5.	**Explain** the significance of Indian culture	**BT 5**

Detailed Syllabus:

Modules	**Topics and Course Content**	**Periods**
Unit 1	Indian Geographical concepts: the earth, eclipses, latitudes and longitudes, cardinal points; weather and climate, Describe the earliest known Indian scholars and their knowledge on Earth and Gravity: Aryabhata and Bhaskara	15
Unit 2	Concepts of Panchatatva: Prithvi (Earth), Pavan (air), Jal (water), Tej (Solar energy) and Nabh (sky), Traditional practices of environmental conservation in India: Traditional water management practices, Indian Culture and conservation of biodiversity case studies from North East India (sacred forest of Mawphlang and Balpakram	15
Unit 3	Traditional housing designs of tribes, food habits, clothes etc, Agriculture in ancient India, Use of metals in ancient India: iron, steel, copper etc. The First Urbanisation in India: Indus Valley Civilization	15

Unit 4	Indian cultural sites and their significance in Indian spirituality; the idea of tirthas and their geographical implications; ideas of ancient Indian trade with South east Asian region, folk tales and their relevance in present day geography, customary land laws of North East India	15
	Total	**60**

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Assignment preparation and presentation	

Text Books:

1. Eck, D. L., 2013: India: A Sacred Geography, Harmony.
2. Mahadevan B. and Bhat V. R., 2022: Introduction To Indian Knowledge System: Concepts And Applications, PHI Learning.
3. Adhikari, S., 1992: Geographical Thought, Chaitanya Pub. House, Allahabad.
4. Dikshit, R. D., 1997: Geographical Thoughts: A Contextual History of Ideas, Prentice Hall of India, New Delhi.
5. Hussain, M., 2022: Evolution of Geographical Thought, Rawat Publication, New Delhi.

Reference Books:

1. Singh, R. L., (ed), 1971: India: A Regional Geography, National Geographical Society of India, Varanasi.
2. Pletcher. K., 2010: The Geography of India: Sacred and Historic Places (Understanding India), Britannica Educational Pub

MINOR	**ECONOMIC GEOGRAPHY** **L-T-P-C: 3-1-0-4 Credit Units: 4 Scheme of Evaluation: (T+P)**	**Subject Code:GEO162N401**

Course Objectives: *It focuses on the basic concepts of economic geography and its associated patterns and processes of the prime economic activities of the world.*

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** concepts and ways on how geographical aspects organise economic space.	BT1
CO2	**Compare** different sectors of economy and arrive at logical conclusion regarding importance of each sector in economic development of the nation.	BT2
CO3	**Identify** the principles and significance of economic geography.	BT3
CO4	**Discover** new insights among students on the relevance of economy and geography and associated problems in contemporary times.	BT4

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Meaning and scope of Economic Geography; Approaches in Economic Geography; Concept and classification of economic activity; factors influencing economic activities: Land, Labour, Capital; and production	10
Unit 2	Primary Activities: Subsistence and Commercial agriculture, forestry, fishing and mining; Secondary Activities: Manufacturing (Cotton Textile, Iron and Steel), Concept of Manufacturing Regions; Special Economic Zones and Technology Parks; Tertiary Activities: Transport, Trade and Services.	14
Unit 3	Theories of Economic Geography: Von Thunen's model of agricultural location, Industrial location theories of Weber, and concept of economic development by Myrdal and Rostow.	14
Unit 4	Economic Geography of Resources; Global pattern of distribution and production of selected resources: Food grains, iron ore, coal, petroleum and atomic minerals; Global economic scenario.	10
	Total	**48**

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Assignment preparation and presentation	

Text Books:

1. Alexander J. W., 1963: ***Economic Geography***, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
2. Coe N. M., Kelly P. F. and Yeung H. W., 2007: ***Economic Geography: A Contemporary Introduction***, Wiley-Blackwell.

Reference Books:

1. Wheeler J. O., 1998: *Economic Geography*, Wiley..
2. Durand L., 1961: *Economic Geography*, Crowell.
3. Bagchi-Sen S. and Smith H. L., 2006: *Economic Geography: Past, Present and Future*, Taylor and Francis.
4. Willington D. E., 2008: *Economic Geography*, Husband Press.
5. Clark, G. L., Feldman, M. P., Gertler, M. S., & Williams, K. (Eds.). (2003). *The Oxford handbook of economic geography*. Oxford University Press

Minor	GEOGRAPHY OF REGIONAL DEVELOPMENT	Subject Code:
	L-T-P-C: 3-1-0-4 Credit Units: 4 Scheme of Evaluation: (T)	GEO162N402

Course Objectives: *This course intends to make the students* understand the concept of a regional development from a Geographic perspective and its ramifications in planning process.

Course Outcomes:

After successful completion of the course, the students will be able to:		
Sl. No.	**Course Outcome**	**Blooms Taxonomy Level**
CO1	**Define** basic concepts of regional development	BT1
CO2	**Explain** the strategic importance and applicability of regional development	BT2
CO3	**Build** plans for development in rural and urban regions	BT3
CO4	**Apply** this knowledge in real world situations.	BT4
CO5	**Interpret** various issues related to regional development on national and global perspective	BT5

Detailed Syllabus:

Modules	Topics and Course Content	Periods
Unit 1	Concept of region, regionalization, regionalism, and regional development; Types of Region; Significance of regional development studies; Approaches to regional development studies	15
Unit 2	Approaches to regional development in India; Role of Panchayati Raj Institutions in Regional Development; Concept of multi-level planning and Development: Micro, Meso and Macro.	15
Unit 3	Identification of resource regions; Concept of Development: Growth versus development; Concept of sustainable development and balanced development, Case studies of successful regional development initiatives in India.	15
Unit 4	Disparity of Regional Development in India; Development indicators; Measuring level of development, Regional Development theories and models: Growth Pole Model of Perroux; Cumulative Causation Theory of Gunnar Myrdal.	15
	Total	**60**

Notional Credit Hours for the course: 30X4= 120

Total credit in the paper	Lecture/Tutorial	Experiential Learning	Total credit in the paper
4	60 hours	30 hours	4
		Assignment preparation and presentation	

Text Book:

1. Krishnamurthy, J. (2000). **Rural Development - Problems and Prospects**. Jaipur, India: Rawat Publs.
2. Singh, R.B. (1985): **Geography of Rural Development**. New Delhi, India: Inter India.
3.
4. Alden J. and R. Morgan, 1974: ***Regional Planning: A Comprehensive View***, Leonard Hills Books, U.K.
5. Chand, M. and Puri, V. K. 1993: ***Regional Planning in India***, Allied Publishers Limited, B/M Asraf, Ali Road, New Delhi-110002.
6. Chandna, . R. C., 2000: ***Regional Planning: A Comprehensive Text***, Kalyani Publishers, New Delhi .

References:

1. Dickinson , R. E: ***City, Region and Regionalism,***
2. Hall, P., 1975: ***Urban and Regional Planning***, David and Charlos, London.
3. Hilborst,J. G. M. (1971) : ***Regional Planning: A System Approach***, Notterdam University Press.
4. Mishra, R. P, 1992: ***Regional Planning: Concept, Techniques, Policies and Case Studies,*** Concept Publications, New Delhi.

Type of Course: AEC **(w.e.f. 2023-24)**

UG programmes Semester: 4th Course

Code: CEN982A401

Title: CEN IV – Employability and Communication Total credits: 1

Course level: 200

L-T-P-C: 1-0-0-1

Scheme of Evaluation: Theory and Practical

Course Objectives: This course is designed to enhance employability and maximize the students' potential by introducing them to the principles that determine personal and professional success, thereby helping them acquire the skills needed to apply these principles in their lives and careers.

Course Outcomes: After the successful completion of the course, the students will be able to

SI No	Course Outcome	Blooms Taxonomy Level
CO 1	**Demonstrate** understanding the importance of verbal and non-verbal skills while delivering an effective presentation.	**BT 2**
CO 2	**Develop** professional documents to meet the objectives of the workplace	**BT 3**
CO 3	**Define** and identify different life skills and internet competencies required in personal and professional life.	**BT 3**

Detailed Syllabus		
Units	**Course Contents**	**Periods**
I	**Presentation Skills** Importance of presentation skills, Essential characteristics of a good presentation, Stages of a presentation, Visual aids in presentation, Effective delivery of a presentation	**5**

II	**Business Writing** Report writing: Importance of reports, Types of reports, Format of reports, Structure of formal reports Proposal writing: Importance of proposal, Types of proposal, structure of formal proposals Technical articles: Types and structure	**5**
III	**Preparing for jobs** Employment Communication and its Importance, Knowing the four- step employment process, writing resumes, Guidelines for a good resume, Writing cover letters Interviews: Types of interview, what does a job interview assess, strategies of success at interviews, participating in group discussions.	**5**
IV	**Digital Literacy and Life Skills** **Digital literacy:** Digital skills for the '21st century', College students and technology, information management using Webspace, Dropbox, directory, and folder renaming conventions. Social Media Technology and Safety, Web 2.0. **Life Skills**: Overview of Life Skills: Meaning and significance of life skills, Life skills identified by WHO: self-awareness, Empathy, Critical thinking, Creative thinking, Decision making, problem- solving, Effective communication, interpersonal relationship, coping with stress, coping with emotion. Application of life skills: opening and operating bank accounts, applying for pan, passport, online bill payments, ticket booking, gas booking	**5**

Keywords: Employability, business writing, presentation skills, life skills

Text:

1. *Business Communication* by PD Chaturvedi and Mukesh Chaturvedi

References:

1. *Business Communication* by Shalini Verma References:
2. *Technical Communication* by Meenakshi Raman and Sangeeta Sharma

Credit Distribution		
Lecture/Tutorial	**Practicum**	**Experiential Learning**
15 hours	-	10 hours - Movie/ Documentary screening - Field visits - Peer teaching - Seminars - Library visits

Subject Name: Behavioural Sciences -IV

Course code: BHS982A404

Credit: 1

Course objectives: To increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations.

Course outcomes: On completion of the course the students will be able to:
CO1**:** Understand the importance of individual differences
CO2: Develop a better understanding of self in relation to society and nation
CO3: Facilitation for a meaningful existence and adjustment in society

Modules	Course Contents	Periods
I	**Managing Personal Effectiveness** Setting goals to maintain focus, Dimensions of personal effectiveness (self disclosure, openness to feedback and perceptiveness), Integration of personal and organizational vision for effectiveness, A healthy balance of work and play, Defining Criticism: Types of Criticism, Destructive vs Constructive Criticism, Handling criticism and interruptions.	4
II	**Positive Personal Growth** Understanding & Developing positive emotions,Positive approach towards future, Impact of positive thinking, Importance of discipline and hard work, Integrity and accountability, Importance of ethics in achieving personal growth.	4
III	**Handling Diversity** Defining Diversity, Affirmation Action and Managing Diversity, Increasing Diversity in Work Force, Barriers and Challenges in Managing Diversity.	4
IV	**Developing Negotiation Skills** Meaning and Negotiation approaches (Traditional and Contemporary) Process and strategies of negotiations. Negotiation and interpersonal communication. Rapport Building – NLP.	4
Total		**16**

Text books:

- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 3, Management; Pfeiffer &Company
- Blair J. Kolasa, Introduction to Behavioural Science for Business, John Wiley & Sons Inc.