PROGRAMME PROJECT REPORT (PPR)

BACHELOR OF SCIENCE IN GEOGRAPHY

Distance Mode: Semester Pattern

Department of Geography
School of Sciences
TAMIL NADU OPEN UNIVERSITY
577, Anna Salai, Saidapet, Chennai – 600 015

Geography

Board of Studies

S.No.	Name, Designation & Contact Address	Criteria
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PROGRAMME PROJECT REPORT (PPR)

(From Academic Year 2021-22 onwards)

1. Programme's Mission & Objectives:

Three year degree in B.Sc Geography Program has been intended to fulfill requirements of students for capability in information on fundamental and essential standards of Physical and Human Geography. As a point that is extraordinary in spanning the social and physical parts of the World, Geography might be a field of science devoted to the investigation of the grounds, the highlights, the occupants, and subsequently, the marvels of Earth. Understudies can build up their systematic abilities through a decent scope of involvement with taking care of uses of Geography by their preparation obtained through the handy lab. The fundamental way of thinking of our point is to "Arrive at the Unreached". Thinking about this, the University dispatched its Geography Program at the Under-graduate level from the meeting AY 2021-22.

The primary goals of the task are:

• The educational program is focused on comprehension and tackling natural and feasible advancement issues. This is regularly an essential connection between nature and sociologies.

• By making a psychological guide of network, area or domain, nation and world, students can comprehend the "where" of spots and occasions and relate them to the significant world.

• This course will be wont to comprehend the reliance of the planet and to turn into a much better worldwide resident.

• Empowering people with the logical abilities expected to search out work and improve their lives.

• Providing open doors for intrigued understudies to enter Universities and study past the age, work and seat limits.

2. Relevance of the Programme with HEI's Mission and Goals:

The direction is expected to associate with understudies in learning experiences that enable them to learn content just as to make more noticeable energy for learning – engaging them to 'make sense of how to learn' and to be profound established understudies. In the understudy centered perspective of guidance, understudies are stimulated to accept more noticeable risk for their learning results. We are furthermore propelling the usage of Indian language, Tamil for our B.ScGeographyprogram.Thus, students completing this program are going to be able to:

- Recognize Earth as the nation of humankind and offer information to shrewd the heads decisions about how the planet's benefits should be used.

- Grasp geography's viewpoint on world through the central purposes of spot, space, and scale. A central statute of geography is that "zone matters" for understanding a wide grouping of cycles and wonders. Definitely, geography's accentuation on the spot gives a crosscutting point of view on and wonders that various requests will by and large treat in separation. Geographers base on "certified

world" associations and conditions among the miracles and cycles will offer character to any region or spot.

- Research normal social components relating human action to the state of being, biological components associating physical structures, and human-social components interfacing economic, social, and political systems; and
- Direct spatial depiction using visual, verbal, mathematical, progressed, and scholarly approaches. Spots are trademark research habitats for the examination of complex associations among cycles and ponders.

3. **Nature of Prospective Target Group of Learners:**

Bachelor of Science (Geography) Programme is supposed for college kids who have completed 10 +2 patterns from the Board of the upper lyceum, Tamilnadu Government, or equivalent level from the other boards like Central Board of education (CBSC) and Indian School Certificate (ISC) recognized by the Indian Government, etc. It also targets the agricultural population to succeed in their dream of obtaining education for whom the chance was denied thanks to lack of the limited number of seats available within the conventional University system.

The target group may be following:

- Passed out 10+2 fresher students intending education
- Remote/ village intending Learners
- Those who cannot attend a full-time program thanks to constraints.
- Working Professionals and official
- Home Makers and a category having of low level of income, minorities, etc.

4. Appropriateness of Programme to be conducted in Open and Distance Learning mode to acquire specific Skills and Competence:

B.ScGeography Program has a great deal of extension inside the Teaching, Research field, Planning likewise inside the application field of Geographical Information System, Remote Sensing and Global Navigation Satellite System. There are three significant segments of this program is Theory, Practical and the hands-on work. The information is granted through SLM and enhanced by addresses, handy, contact classes and advising meetings through on-line and disconnected. The program includes a very much organized arrangement of self-learning material redid to student's ability and inclination. Programme is balanced to evaluate the student's advancement through checks including tasks and tests.

5. Instructional Design:

The Department of Geography has planned its educational program and Self Learning materials, different assets and criticism framework which are appropriately examined and endorsed by the Board of Studies and Academic Council of TNOU. The most Objective of B.Sc Geography Program will empower the students to know the basic information on Geography and have them comprehend the effect of human with the incorporating local environmental condition.

The three-year education in science certificate in Geography comprises of six Semesters. It's educated in Tamil and English medium. The Faculty Members accessible at the Department of Geography and the resources affirmed as Academic Counselors of TNOU at Learner Support Centers are conveying the B.Sc Program in Geography.

The credits frameworks recommended according to UGC-ODL Regulations-2020 are relegated to the B.Sc Geography Program. The whole number of credits doled out for the Program is 102. Learning Material through print-media named Self-Learning Material (SLM) is created with the methodology of plain as day, independent, self-rousing, and self-assessing clinging to UGC rule. The Self Learning Materials available in the form of such a print, e-substance and sound/video materials has additionally been created for the Program.

Practical Counselling classes are taken care of by in-house workforce of TNOU in the primary Campus and at chose LSCs from wherever Tamilnadu. Viable directing classes are mandatory to complete the course. Manual additionally as datasheets for the reasonable activities will be given as and when required and, half of viable guiding classes are led through virtual lab.

6. Procedure for Admissions, Curriculum Transaction and Evaluation:

Admission confirmation measure is led through an online mode. Admissionfee likewise gathered through online passage administration anddevoted bank challan to guarantee better straightforwardness in monitory exchange. The confirmation is directed by Tamil Nadu Open University and through its Regional Centres situated within the State of Tamil Nadu.

6.1 Eligibility **:** 10+2 Pass

6.2 Fee **:** Rs. 6000/Year & Registration Processing fee.

6.3 Financial Assistance

SC/ST Scholarship available as per the norms of the State Government of Tamil Nadu. Complete fee waiver for the Physically challenged/ differently abled persons.

6.4 Policy of Programmedelivery: The Academic Calendar for the Program will be accessible for the students to follow down the ordered occasions/happenings. The Counseling plan for both theory and Practical will be transferred inside the TNOU site and the equivalent is hinted to the understudies through SMS.

6.5 Evaluation System: Assessment to Bachelor Degree Program in Geography is intended to deal with the nature of standard. Theory exam and Practical counselling classes are directed by the University in the distinguished Examination Centers and half of Practical classes will be led on the web. As to Assignments, understudies could likewise be allowed to compose with the help of books/materials for each Course, which can be assessed by the Evaluators drew in by the University.

6.6 Assignment:1 assignment for 2 credits is to be set up by the students. For examplein the event that a Course is of Credit 3, at that point 2 Assignments are to be composed by the student to satisfy the persistent

appraisal measures. Task conveys 30% of weightage of imprints, comprises of Long Answer Questions (1000 words) for each Course.

6.7 Model Assignment Question Pattern

Assignment – 1 Max: 15 marks

Answer any ***one*** of the questions not exceeding 1000 words

1. Question
2. Question
3. Question

Assignment - 2 Max: 15 marks

Answer any ***one*** of the questions not exceeding 1000 words

1. Question
2. Question
3. Question

6.8 Theory Examination:

Students are normally permitted to allow for theory examination by finishing Practical and Assignments. The Term - End Examination will Carry 70 marks and has Section: A, B and C will be of span 3 hours.

TERM END QUESTION PAPER PATTERN

Time: 3 Hours Maximum Marks: 70

PART – A (3x3=9 Marks)

Answer any three questions out of five questions in 100 words

All questions carry equal marks

Question Distribution Method:

1. From Unit: I
2. From Unit: II
3. From Unit: III
4. From Unit: IV
5. From Unit: V

PART – B (3X7=21 Marks)

Answer any three questions out of five questions in 200 words

All questions carry equal marks

6. From unit: I
7. From unit: II
8. From unit: III
9. From unit: IV
10. From unit: V

PART – C (4X10=40 Marks)

Answer any four questions out of seven questions in 500 words

All questions carry equal marks

11. From unit: I
12. From unit: II
13. From unit: III
14. From unit: IV
15. From unit: V
16. From any Unit.
17. From any Unit.

6.9. Passing Minimum: The Passing minimum is 40 percent in the External Theory, Practical as well as Continuous Internal Assessment (CIA) for successful completion of each Course.

Continuous Internal Assessment (CIA)		Term End Examination (TEE)		Overall Aggregated Marks	Maximum Marks
Minimum Pass Mark	Maximum Mark	Minimum Pass Mark	Maximum Mark	CIA + TEE	
13	30	25	70	40	100

7 Classification of Successful Candidate: Competitors who pass all the Courses and who secure 60% or more in the total of imprints will be set in the First Class. Those making sure about 50% or more yet fewer than 60% in the total will be put in the Second Class.

8 Requirement of the Laboratory Support and Library Resources:

The Program will be offered through the Learner Support Center (LSC) kept up by Tamil Nadu Open University. The LSC has the predefined infrastructural centres to direct the Counseling classes for the students who wish to clear their questions. Three Practical counseling classes (every one every year) in Bachelor Degree Program in Geography and half of Practical classes are directed on the web. The remaining will be led through chosen LSC and upheld the number of students conceded for the genuine

Practical Course.

A well-prepared Library is out there inside the University Headquarters with around 24,000 books and a great deal of examination diaries. The Learners Support Centre through which the Degree Programme is to be offered is additionally equipped and a full-fledged library having books and journals related to Geography.

9 Cost Estimate of the Programme and the Provisions:

S.No.	Details	Amount in Rs.
1	Programme development and launching cost (Expenditure)	- 7,32,2888
2	Programme Fee charged for 3years per student (Income)	18,000
3	Examination Fee charged for 3 years (Income) per student	9,000
4	Examination expenses per student for 3 years per student (Expenditure)	- 6,000

10 Quality Assurance Mechanism and Expected Programme Outcomes:

The norm of the Bachelor Degree Program in Geography is kept up by embracing the educational plan recommended by the UGC and TANSCHE. According to UGC DEB rules the 12 Core courses, four Generic elective courses, Four Discipline Specific Courses, 2 Skill Enhancement Courses and a few Ability Enhancement Courses are incorporated inside the Program. The Curriculum of Bachelor Degree Program in Geography was affirmed by the Board of Studies continued nineteenth, June 2020. It'll be put for endorsement imminent Academic Council and Syndicate of Tamil Nadu Open University of the Quality confirmation. The educational plan for the Program will be refreshed once in three years. Vital advances will be taken to get input from the students and in this manner, the Academic Counselors who are an aspect of the Program for compelling conveyance of the Program.

PROGRAMME OBJECTIVES

PO1.Showsbasicideasofgeography.

PO2.Coherentandefficientinformationinthefieldofgeographythatinfluencescurrentproblemsandtheiranswers.

PO3.Wedeveloptheabilitytofundamentallyevaluatevastchainsofspatialhighlightsonvarioustimescalesfromthegloballeveltotheneighborhoodlevel.

PO4.Abilitytoreadmapsandtopographicmapsandidentifydifferentaspectsofaplace.

PO5.Recognitionofaptitudeadvancementwithingeographyaspartofprofessionalopeninginvariousfieldssuchasteaching,researchandorganization.

PO6.Demonstratecompetenceinusinggeographicsurveytoolssuchasspatialstatistics,mapping,remotesensing,GIS,andIRNS

PROGRAMME SPECIFIC OBJECTIVES

PSO1. Relevance of geographical knowledge to everydaylife.

PSO2. To communicate geographic information utilizing both lecture and practical exercises.

PSO3. Inculcate the ability to evaluate geographical problemseffectively.

PSO4. Reveal the skill in using geospatial research tools including spatial statistics, cartography, remote sensing, GIS, IRNSS.

PROGRAMME OUTCOMES

POC1. Demonstrate of fundamental ideas in Geography.

POC2. Coherent and efficient information inside the field of Geography to influence current issues and their answers.

POC3. Develop the ability to fundamentally assess the immense chain of spatial highlights at the distinctive time scales from worldwide to neighborhood level.

POC4. Ability to peruse and maps and topographic sheets to ascertain different aspects of the place.

POC5. Recognition of aptitude advancement within the geographical studies as a piece of professional openings in different fields like educating, exploration and organizations.

POC6. Demonstrate proficiency within the use of geographic research tools, including spatial statistics, mapping, remote sensing, GIS and IRNS

It is also suggested that after the completion of B.Sc. Programme, students shouldbeabletodemonstratetheknowledgeobtainedinsuchwaysothattheycanexplore the employability options and service to thesociety.

PROGRAMME SPECIFIC OUTCOMES

Three distinct and new learning outcomes have been incorporated from each course such as to:

PSO1. Understand the relevance of geographical knowledge to everydaylife.

PSO2. Getting the ability to communicate geographic information utilizing both lecture and practical exercises.

PSO3. Inculcate the ability to evaluate geographical problemseffectively.

PSO4. Exhibit the skill in using geographical research tools including spatial statistics, cartography, remote sensing, GIS, IRNSS and GIScience.

COURSE LEVEL LEARNING OUTCOMES

The course level learning outcomes includes:

1. **Basic Concept:** The fundamental concepts and philosophical foundation of eachcourse need to bediscussed.
2. **Understanding Landscape:** An understanding of landscape at different levels needsto be discussed and understood for a thorough knowledge of spatialdimensions.

3. **Understanding Ecosystem Structure and Potential:** To comprehend the dynamic dimensions of human and ecosystemrelationships.
4. **HumanPerceptionandBehaviour:**Learninghumanperceptionandbehaviourtoacquire the geographical knowledge evolved over time, is essential to improve decision making process.
5. **IdentificationofCriticalProblemsandIssues:**Detectionandidentificationofthecritical problems and spatial issues are essential for sustainabledevelopment.
6. **Field Based Knowledge:** Field based knowledge is essential to understand the ground reality, spatial patterns andprocesses.
7. **SpatialToolsandTechniques:**Thebasicsandapplicationsofspatialtoolsandtechniques are essential to make the studies more scientific andapplicable.
8. **Statistical Techniques:** Use of statistical tools and techniques is essential for precise and objective geographic analysis and interpretation of complexphenomena.
9. **Applied Dimensions:** Identification of the critical problems and spatial issues form the core of the modern geography for various applications and decision making, including Resources, Environment & Disaster Management, Land Use Planning, and Urban and Regional Development together with Climate Change Mitigation and Adaptation,etc.
10. **CaseStudybasedAnalysis:**Thereisaneedtounderstandthespecificitiesoftheproblems in specific areas for their in-depth comprehension and solution. The case studies are essential,especiallytofindoutthesolutionstothelaggingregionsfortheirsolutionsbased on firsthandinformation.
11. **Public Policy and Management:** Spatial aspects and dimensions are the integral parts in the policy making for sustainable regional development. Geographical knowledge needs to be inculcated for application and solutions of the various local, regional and nationalproblems.
12. **Communication Skills:** Communication through models, maps, images and other geographical tools form the sound base for the dissemination of geographicalinformation.

B. Sc Geography Programme Mapping

Core Courses

Semester I

1. BGEOS 11: Geomorphology
2. BGEOS 12: General Cartography

Semester II

3. BGEOS 21: Climatology and Oceanography

Semester III

4. BGEOS 31: Human Geography
5. BGEOS 32: Geography of Health and Well-being

Semester IV

6. BGEOS 41: World Regional Geography

Semester V

7. BGEOS 51: Geography of Tamilnadu
8. BGEOS 52: Fundamentals of Remote Sensing
9. BGEOS 53: Geography of Settlement

Semester VI

10. BGEOS 61: Geography of India
11. BGEOS 62: Fundamentals of GIS and GNSS
12. BGEOS 63: Practical: Mapping Techniques – III

Generic Elective Papers

Semester I

1. BGEOSA 11: General Geology

Semester II

2. BGEOSA 21: Statistics

Semester III

3. BGEOSA 31: Geography of Tourism

Semester IV

4. BGEOSA 41: Information Technology

Discipline Specific Elective

Semester V

1. BGEOS 54: Disaster Studies
2. BGEOS 55: Bio Geography

Semester VI

3. BGEOS 63: Economic Geography
4. BGEOS 64: Population Geography

Skill Enhancement Course

Semester II

1. BGEOS P1: Practical: Mapping Techniques – I

Semester IV

2. BGEOS P2: Practical: Mapping Techniques – II

AEC - Ability Enhancement Courses

Semester IV

1. BFEF 41: English
2. CCC: Environmental studies

6. COURSE-LEVEL LEARNING OUTCOMES MATRIX

Outcomes	**Core Subjects**											
	Geomorphology	General Cartography	Climatology and Oceanography	Human Geography	Geography of Health and Well-being	World Regional Geography	Geography of Tamilnadu	Fundamentals of Remote Sensing	Geography of Settlement	Geography of India	Fundamentals of GIS and GNSS	Practical: Mapping Techniques – III
Basic Concept	X	X	X	X	X	X	X	X	X	X	X	
Understanding Landscape	X	X				X	X	X		X		X
Understanding Ecosystem structure and Potential	X		X	X	X	X	X		X	X	X	
Human Perception and Behaviour			X	X	X	X	X		X	X		X
Identification of Critical Problems and Issues	X	X	X	X				X	X		X	X
Field Based Knowledge	X	X	X		X		X	X	X	X	X	X
Spatial Tools and Techniques		X						X			X	X
Statistical Techniques		X			X			X			X	X
Applied Dimensions	X	X	X	X	X	X		X	X		X	X
Case Study based Analysis	X	X	X	X	X	X		X	X		X	
Public Policy and Management	X	X	X		X		X	X	X	X	X	
Communication Skills		X						X			X	X

Outcomes	Generic Elective				Discipline Specific				Skill Enhancement Course		Ability Enhancement Courses	
	General Geology	Statistics	Geography of Tourism	Information Technology	Disaster Studies	Bio Geography	Economic Geography	Population Geography	Practical: Mapping Techniques – I	Practical: Mapping Techniques – I	English	Environmental studies
Basic Concept	X	X	X	X	X	X	X	X				X
Understanding Landscape	X		X		X				X	X		X
Understanding Ecosystem structure and Potential	X		X		X	X		X				X
Human Perception and Behaviour		X			X	X	X	X			X	X
Identification of Critical Problems and Issues		X		X	X			X	X	X		X
Field Based Knowledge	X				X				X	X		
Spatial Tools and Techniques				X					X	X		
Statistical Techniques		X		X					X	X		
Applied Dimensions	X	X		X	X	X	X					X
Case Study based Analysis	X	X			X			X				
Public Policy and Management	X	X	X		X		X	X				X
Communication Skills		X		X							X	

B.Sc Geography - Semester Pattern

Allocation of Courses and Credits

Course	Code	Semester 1	Credits	CIA	TEE	Total
FL1	BFTMS_11	Tamil	3	30	70	100
SL1	BFEGS_11	English	3	30	70	100
Core 01	BGEOS_11	Geomorphology	4	30	70	100
Core 02	BGEOS_12	General Cartography	4	30	70	100
GEC 01	BGEOSA_11	General Geology	3	30	70	100
	Total		**17**			**500**
		Semester 2				
FL2	BFTMS _21	Tamil	3	30	70	100
SL2	BFEGS_21	English	3	30	70	100
Core 03	BGEOS_21	Climatology and Oceanography	4	30	70	100
SEC 01	BGEOS_P1	Practical: Mapping Techniques – I	2	30	70	100
GEC 02	BGEOSA_21	Statistics	3	30	70	100
	Total		**15**			**500**
		Semester 3				
FL3	BFTMS_31	Tamil	3	30	70	100
SL3	BFEGS_31	English	3	30	70	100
Core 04	BGEOS_31	Human Geography	4	30	70	100
Core 05	BGEOS_32	Geography of Health and Well-being	4	30	70	100
GEC 03	BGEOSA_31	Geography of Tourism	3	30	70	100
	Total		**17**			**500**
		Semester 4				
FL4	BFTMS_41	Tamil	3	30	70	100
AEC 01	BFEGS_42	English	3	30	70	100
Core 06	BGEOS_41	World Regional Geography	4	30	70	100
SEC 02	BGEOS_P2	Practical: Mapping Techniques – II	2	30	70	100
GEC 04	BGEOSA_41	Information Technology	3	30	70	100
AEC 02	CCC	Environmental studies	2	30	70	100
	Total		**17**			**600**
		Semester 5				
Core 07	BGEOS_51	Geography of Tamilnadu	4	30	70	100
Core 08	BGEOS_52	Fundamentals of Remote Sensing	4	30	70	100
Core 09	BGEOS_53	Geography of Settlement	4	30	70	100
DSE 01	BGEOS_54	Disaster Studies	3	30	70	100
DSE 02	BGEOS_55	Bio Geography	3	30	70	100
	Total		**18**			**500**
		Semester 6				
Core 10	BGEOS_61	Geography of India	4	30	70	100
Core 11	BGEOS_62	Fundamentals of GIS and GNSS	4	30	70	100
Core 12	BGEOS_P3	Practical: Mapping Techniques – III	4	30	70	100
DSE 03	BGEOS_63	Economic Geography	3	30	70	100
DSE 04	BGEOS_64	Population Geography	3	30	70	100
	Total		**18**			**500**
	Grant Total		**102**			**3100**

***FL**- First Language, **SL** – Second Language, **GE**- Generic Elective, **DSE**-Discipline Specific Elective, SEC-Skill Enhancement Courses,AEC-Ability Enhancement Courses*

B.Sc. GEOGRAPHY

SYLLABUS

TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)

(COURSE TITLE) : **-I**

(COURSE CODE) : **BFTM-01**

(COURSE CREDIT) : **3 Credits**

(COURSE OBJECTIVES)

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(COURSE OUTCOME

Syllabus Details

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Foundation in English-I (Literature and Grammar)**
COURSE CODE	**:**	**BFEG-1**
COURSE CREDIT	**:**	**3 Credits**

COURSE OBJECTIVES

While studying the **Foundation in English-I (Literature and Grammar)**, the student shall be able to:

- To make the learners aware of the history of England
- To cultivate the creativity among the learners
- To improve the reading skills of the learners
- To enhance the vocabulary of the learners
- To make the learners read and write in English

COURSE OUTCOMES

On successful completion of the Course, the learners will be able to:

- describe the history of England
- critically analyse the literary texts
- use the words correctly
- write in flawless English

Syllabus Details

Block1: Brief History of England

Tudor England- Stuart England -Restoration England -Revolutions -Eighteenth Century-19th Century Education- 20th Century

Block 2: Literary Texts

R.K. Narayan- An Astrologer's Day and Sarojini Naidu - Bangle Sellers

Block3: Reading Comprehension

Definition of Comprehension- Types of Comprehension- Reading Materials-Vocabulary- Critical Reading- Effective Reading- Exercises

Block 4: Functional Grammars and Vocabulary

Parts of Speech- Tenses-Articles -Prepositions and Linkers –Punctuation-Common Mistakes -Polite Expression-Affixes

Block5: Language Skills

Reading Skills: SQ3R Technique -Writing Skills -Dictionary Use

References:

1. Narayan R.K. *Short Story Collections*.
2. Sarojini Naidu. *Bangle Sellers*
3. Sinha C.A. Reading Comprehension. Prabhat Prakashan.
4. Xavier A.G. *An Introduction to the Social History of England.* Viswanathan S. Printers, Chennai. 2009.

Web Resources:

1. https://www.digimat.in/nptel/courses/video/109106124/L01.html
2. https://www.digimat.in/nptel/courses/video/109106138/L46.html
3. https://www.coursera.org/lecture/multimodal-literacies/9-2-learning-to-read-reading-for-meaning-HdG3O
4. https://nptel.ac.in/courses/109/107/109107172/

TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)

COURSE TITLE : Geomorphology

COURSE CODE : BGEOS_11

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying Geomorphology, the student shall be able to:

CO1 Realize the Geomorphological concepts.
CO2 Exploringthe theories of Geomorphology
CO3 Associating the various Geomorphic processes.
CO4 Appreciating the Cycle of erosion.
CO5 Distinguish the Evolution of Landforms.

COURSE OUTCOMES

After completion of the **Geomorphology**, the student will be able to:

CLO1 The basic concepts, Earth's structure, types of rocks and types of folds and faults.

CLO2 Theories such as Theory of isostasy, Continental drift theory, Seafloor spreading and Plate Tectonics Theory.

CLO3 Evaluating the geomorphic processes due to Earthquakes and Volcanoes, Weathering, and Mass Wasting.

CLO4 Knowledge about the Cycle of Erosion given by Davis and Penck

CLO5 Studying the Evolution of Landforms associated with the action of river, underground water, Aeolian and Glacial, Coastal landformsand geomorphic applications.

Syllabus Details

Block 1: Introduction to Geomorphology

1. Nature, Scope, Key concepts, and Systems approach
2. Earth: Interior Structure
3. Rock Types: Igneous Sedimentary and Metamorphic
4. Types of Folds and Faults

Block 2: Theories of Geomorphology

5. Theory of isostasy
6. Wegner's Continental drift theory

7. Seafloor spreading
8. Plate Tectonics Theory

Block 3: Geomorphic Processes

9. Earthquakes and Volcanoes.
10. Weathering and Mass Wasting

Block 4: Cycle of Erosion

11. Cycle of Erosion: Davis
12. Cycle of Erosion: Penck

Block 5: Evolution of Landforms

13. Evolution of Landforms (Erosional and Depositional): Fluvial and Karst
14. Evolution of Landforms (Erosional and Depositional): Aeolian and Glacial
15. Evolution of Landforms (Erosional and Depositional): Coastal.
16. Application of Geomorphology in Mineral Exploration and Coastal Zone Management.

References

1. Summerfield M. A. (2013): Global Geomorphology, Routledge, New York
2. Khullar, D.R., (2012) Physical Geography, Kalyani Publishers, New Delhi.
3. Christopherson, R. W. and Birkeland, G. H., (2012) Geosystems: An Introduction to Physical Geography (8th edition), Pearson Education, New Jersey.
4. Huggett, R.J. (2007) Fundamentals of Geomorphology, Routledge, New York.
5. Das Gupta, A., andKapoor, A.N, Principles of Physical Geography, S.C. Chand & Company Ltd, 2001.
6. Lobeck. A.K. (1939) An Introduction to the study of Landscapes, McGraw –Hill Book company
7. Thorn Bury.D.(1984) - Principles of Geomorphology, Wiley Eastern Ltd, New Delhi, 1984

WebReferences

- https://sudartomas.files.wordpress.com/2012/11/fundamentalsofgeomorphology_routledgefundamentalsofphysicalgeography.pdf
- **https://open.umn.edu/opentextbooks/textbooks/926**
- https://www.geographynotes.com/geomorphology/7-major-geomorphic-theories-of-landform-development/686

TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)

COURSE TITLE : General Cartography

COURSE CODE : BGEOS_12

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying the **General Cartography**, the student shall be able to:

CO1 Enumerate the history and development of Cartography.
CO2 Examining the Maps and theirclassifications.
CO3 Evaluating the various types of Projections
CO4 Representation of data for various aspects and purposes
CO5 Proceeding various methods of Map Compiling, Design and Layout

COURSE OUTCOMES

After completion of the **General Cartography**, the student will be able to:

CLO1 Insight the basic concept, Development of Cartography and theShape, Gravity, and Dimension of Earth.
CLO2 Identifying the components of map and its classifications.
CLO3 Analyzing various projections such as Zenithal, Cylindrical and Conical.
CLO4 Representation of data for various aspects and purposes
CLO5 Educating the various cartographical processes for Map making.

Syllabus Details

Block 1: Understanding of Cartography

1. Nature and Scope and Development of Cartography
2. Earth as a Cartographic Problem: Shape, Gravity, and Dimensions

Block 2: Maps and Classification

3. Scale and Functions, Direction, and geographic coordinates
4. Classification of Maps

Block 3: Map Projections

5. Criteria for Choice of Projections.
6. Attributes and Properties of Zenithal Gnomonic Polar Case,

7. Attributes and Properties of Cylindrical Equal Area,
8. Attributes and Properties of Conical Projection with Two Standard Parallel.

Block 4: Representation of Data

9. Interpretation of Thematic Maps.
10. Symbolization: Point, Line and Area.
11. Lettering and toponomy
12. Choropleth, Isopleth and Flow Diagrams

Block 5: Map Compiling, Design and Layout

13. Enlargement and reduction Methods
14. Compilation and generalization
15. Reproduction
16. Visual interpretation and Constraints in map design.

References

1. Cartography: Visualization of Geo Spatial Data — Menno Jan Kraak&FeijanOrmeing, Pearson Duration, New Delhi, 2003.
2. Fundamentals of Cartography — Misra and Ramesh, Concept Publishing House, New Delhi, 1989.
3. Elements of Practical Geography — Singh, PL., Kalyan Publishers, 1979
4. Elements of Cartography — Robinson, John Wiley 4, 1978
5. Maps and Diagrams — Monkhouse and Wilkinson, Methuen & Co. Ltd., London, 1973
6. Principles of Cartography — Raisz, McGraw hill, 1962

Web References

7. https://www.geolaunge.com/types-map-projections/
8. http://www.remsenslab.geol.uoa.gr/digital.html
9. https://www.kullabs.com/classes/subjects/units/lessons/notes/note-detail/156

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)

COURSE TITLE : General Geology

COURSE CODE : BGEOSA_11

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **General Geology**, the student shall be able to:

CO1 Grasp the solar system and the Earth.

CO2 Knowledge about the important Indian geological formations

CO3 Deformation of Folds, Faults and Joints due to internal forces

CO4 Basic characteristics of crystallography and minerology.

CO5 Types of rocks and its characteristics.

COURSE OUTCOMES

After completion of the **General Geology**, the student will be able to:

CLO1 Insight the origin solar system age, compositions, structure, and drift of the earth.

CLO2 Evaluating the different types of folds, faults and joints occur in the earth.

CLO3 Knowledge the morphological characteristics, Laws of Stratigraphy, and geological formations in India

CLO4 Knowledge the morphological characters of crystals, Crystal symmetry and Descriptive Mineralogy

CLO5 Distinguishing the Rocks and their types.

Syllabus Details

Block 1: Study of the Solar system

1. An outline of Nebular and Planetesimal hypotheses of the origin of Solar system
2. An outline of the constitution and composition of the interior of the earth
3. Important methods of determining the age of the earth- Earthquakes and their effects, seismograph- Seismograms- Modern scale of intensity of earthquakes
4. Concepts of continental drift – Wegner's hypothesis.

Block 2: Folds, Faults and Joints

5. Folds: Symmetrical and Asymmetrical; Anticline and Syncline.
6. Faults: Normal fault, strike fault, dip fault, oblique fault, horst and graben
7. Types of Joints: Strike Joints, Dip Joints, Oblique Joints and Bedding joints and Definition of Unconformity and non- conformity.

Block 3: Morphological characteristics of Stratigraphy

8. Definition, Modes of preservation and uses of fossils
9. Morphological characteristics of the following: Pelecypods, Gasteropods, Cephalopods, Brachiopods and Trilobites.
10. Laws of Stratigraphy – Geological Time Scale
11. formations in India: Dharwar system of Karnataka, Cuddapah system, Vindhyan system, Triassic of Spiti, Jurassic of Kutch and Cretaceous of Trichinopoly.

Block 4: Crystallography and Minerology

12. Crystallography: Definition of Crystal - Morphological characters of crystals – Faces – Forms – Edges Solid angles
13. Crystal symmetry: Axes of symmetry, plane of symmetry and Centre of symmetry – Parameters and Miller's indices
14. Descriptive Mineralogy: Definition, Physical properties and Description of the following: Quartz and its varieties, Orthoclase, Albite, Anorthite, Hornblende, Hypersthene, Olivine, Muscovite, Chlorite, Garnet, Talc, Topaz and Calcite.

Block 5: Rocks

15. Igneous rocks: Description of the following: Granite, Pegmatite, Syenite, Diorite, Dunite, Anorthosite, Dolerite and Basalt.
16. Sedimentary rocks: Description of the following: Conglomerate, Sandstone, Arkose, Grit, Shales and Limestone.
17. Metamorphic rocks: Description of the following: Slate, Phyllite, Schist, Gneiss, Quartzite, and Marble.

References:

1. Ravindrakumar (2018) Fundamentals of Historical Geology and Stratigraphy of India, Newage Publications.
2. Ram S. Sharma and Anurag Sharma (2013) Crystallography and Mineralogy - Concepts and Methods. Textbook Series, Geological Society of India, Bangalore
3. R.N. Hota (2012) Practical approach to Mineralogy and Crystallography, CBS Publications & Distributions.
4. Perkin D. (2010) Mineralogy, Pearson.

5. Sengupta S.M. (2007) Introduction to Sedimentology (2nd Edition), CBS Publishers and Distributors, New Delhi.
6. Parbin Singh (1985) Textbook of Engineering and General Geology.
7. Mukherjee, P.K. (1984) A textbook of Geology.

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- https://solarsystem.nasa.gov/solar-system/our-solar-system/in-depth/#:~:text=Formation-,Formation,spinning%2C%20swirling%20disk%20of%20material.
- http://web.arc.losrios.edu/~borougt/GeologicStructuresDiagrams.htm#:~:text=FOLD%3A%20Permanent%20wavelike%20deformation%20in,a%20rock%20without%20noticeable%20movement.
- https://geologyscience.com/geology/stratigraphy/
- https://uhlibraries.pressbooks.pub/historicalgeologylab/chapter/chapter5-stratigraphy/
- https://opengeology.org/Mineralogy/11-crystallography/

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)

(COURSE TITLE) : **-I**

(COURSE CODE) : **BFTM-02**

(COURSE CREDIT) : **3 Credits**

(COURSE OBJECTIVES)

1.
2.

(COURSE OUTCOME

1.
2.

பிரிவு – **1** ஜெயகாந்தனின் "நான் இருக்கிறேன்" – சிறுகதை

தமிழ் உரைநடையில் சிறுகதை வளர்ச்சி – தமிழில் கதை இலக்கியத்தோற்றம், தமிழ்ச்சிறுகதைகளின் தோற்றமும் வளர்ச்சியும், சிறுகதை இலக்கணம் – தமிழ்ச்சிறுகதைகளில்ஜெயகாந்தன் – ஜெயகாந்தன்சிறுகுறிப்பு – கதை அரங்கம் அறிமும், நான் இருக்கிறேன்கதைச் சுருக்கம் – நான் இருக்கிறேன் சிறுகதை – வியாதிக்காரன் அனுபவங்கள், சாகக்கற்றுக்கொடுத்தநொண்டி, வாழக்கற்றுக்கொடுத்த வியாதிக்காரன், நான்இருக்கிறேன் அம்மா, - நான் இருக்கிறேன் – சிறுகததைத் திறனாய்வு.

பிரிவு - **2** வா.செ.குழந்தைசாமியின்அறிவியல் தமிழ் ஆக்கம்இற்றை நிலை

அறிவியல் தமிழ் - இயற்றுதல் அறிந்தோம் புனைதல் இல்லை - தமிழில்அறிவியல்இலக்கியம்படைப்போம் - வா.செ. குழந்தைசாமி -அறிமுகம் - அறிவியல் தமிழ் - எந்தத்துறைகளைக்குறிக்கும் - அறிவியல் தமிழைஉள்ளடக்கியது - தோற்றம் - கலைச்சொல்லாக்கப் பணி - விடுதலைக்குமுன் - விடுதலைக்குப்பின் - பாடநூல் நிறுவனத்தின் பங்கு - பதிப்பகங்களின் பங்கு - பல்கலைக்கழகங்களின் பங்கு - இதழ்களின் பங்கு - இலங்கைத்தமிழரின் பங்கு - கருத வேண்டியவை.

பிரிவு - **3** சமய இலக்கியக்காலம் (கி.பி.**700 -** கி.பி**1100)**

தமிழில் சமய இலக்கியங்கள் - சமணஇலக்கியத் தோற்றம் - பௌத்தஇலக்கியத்தோற்றம் -

தமிழில்பௌத்த இலக்கியங்கள் - வைணவ இலக்கியங்கள் - சைவஇலக்கியத் தோற்றம் - தமிழில்சைவ இலக்கியங்கள் - வைணவஇலக்கியத் தோற்றம் - தமிழில்வைணவ இலக்கியங்கள் - தமிழில்இசுலாமிய இலக்கியங்கள் - தமிழில் கிறிஸ்தவ இலக்கியங்கள்.

பிரிவு - **4** சிற்றிலக்கியக்காலம் (கி.பி. **700 -** கி.பி. **1400)**

சிற்றிலக்கியத் தோற்றம் - சிற்றிலக்கிய வகைகள் - இலக்கண நூல்கள் - உலா - கலம்பகம் - பரணி - பிள்ளைத்தமிழ் - கோவை – தூது.

பிரிவு - **5** உரையாசிரியர்கள் காலம் (கி.பி. **1200** கிபி. **1800)**

உரைநூல்களின் தோற்றம் - பயன்கள் - உரை வகைகள் - நக்கீரர் - இளம்பூரணர் - பேராசிரியர் - சேனாவரையர் - நச்சினார்க்கினியர் - கல்லாடர் - தெய்வச்சிலையார் போன்றோர் - அடியார்க்குநல்லார் - பரிமேலழகர் - பிரபந்தஉரையாசிரியர்கள் - நன்னூல்உரையாசிரியர்கள் .

பிரிவு - **6** புத்திலக்கியக்காலம் (கி.பி. **1800 -** கிபி**2000)**

தமிழில் புதினம் - தமிழில் சிறுகதை - தமிழில்புதுக்கவிதைகள் - தமிழில்உரைநடைநாடகங்கள் - புதினங்கள் - சிறுகதைகள் - இலக்கியங்கள் - மரபுக் கவிதை இலக்கியங்கள் - புதுக்கவிதை இலக்கியங்கள் - தமிழில்ஐக்கூக் கவிதைகள்.

பிரிவு - **7** கருத்துப்பரிமாற்றமொழித்திறன்

கருத்து விளக்கக் கட்டுரைகள் - செய்திக் கட்டுரைகள் - சொற்பொழிவு - குழுவிவாதங்கள் - நண்பர்களுடன் உரையாடும் திறன் - கணினித் தமிழ் - கட்டுரை - பெண்ணியம் - தலைப்பு - தேர்ந்தெடுக்கும் முறை - தகவல்கள் சேகரிக்கும் முறை - தகவல் திரட்டல் - நகைச்சுவைத் திறன் - அவை அறிதல் - உச்சரிப்புக் கவனம் - குழு விவாதஅமைப்பும்குறிக்கோளும் - உரையாடலில் - சுயபுராணம் தவிர்த்தல் - உடன்பட வைக்கும் நாகரிக உத்தி .

பிரிவு - **8** அலுவலகத்தொடர்பு மடல்கள்

நட்புறவு மடல்கள் - வேண்டுதல் மடல்கள் - குறை தெரிவிக்கும் / புகார் மடல்கள் - கருத்து மடல்கள் - விண்ணப்ப மடல்கள் - அலுவலகத் தொடர்பு மடல்கள் - விண்ணப்பமடலின்படிநிலைகள் - தன்குறிப்பு விவரங்கள் - விண்ணப்பமடலின் வடிவமைப்பு - விண்ணப்பமடல்எழுதும் முறை - குறிப்பு - வரைவு - கடிதம் - குறிப்பு மடல் - அலுவலக ஆணை - நேர்முகக்கடிதம்.

பிரிவு - **9** எழுத்து **-** சொல் பிழைகளும்திருத்தமும்

ஒலி மயக்கம் தரும் எழுத்துக்கள் - ர,ற ஒலி மயக்கம் - ந, ன,ண ஒலி மயக்கம் - ல,ள,ழ,ஒலி மயக்கம் - சொல் முதலில் வரும் எழுத்து மரபுகள் - சொல் இடையில் வரும் எழுத்துமரபுகள் - சொற்களின் சந்திப்பு மரபுகள் - வேற்றுமைப்புணர்ச்சியும்அல்வழிப்புணர்ச்சியும் - உயிர்முன் உயிர் புணர்தல் - குற்றியலுகரப் புணர்ச்சி - வல்லின ஒற்று மிகும்இடங்களும்மிகாஇடங்களும்.

பிரிவு - **10** இலாக்கியஅறிவுவினா விடை

பாடப்பகுதிதொடர்பானவை - பொதுவான தமிழ் இலக்கியம் தொடர்பானவை.

பார்வை நூல்கள்:

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible] -1,2,3 [illegible]

5. [illegible] – [illegible], [illegible]. [illegible] [illegible], [illegible], 184, [illegible], [illegible].
6. [illegible], [illegible] [illegible], [illegible] [illegible].
7. [illegible] [illegible], [illegible] [illegible], [illegible].
8. [illegible], [illegible] [illegible], [illegible].
9. [illegible], [illegible], [illegible].
10. [illegible], [illegible]. [illegible], [illegible].
11. [illegible], [illegible] [illegible], [illegible].
12. [illegible], [illegible] [illegible], [illegible].

TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Foundation in English-II (Literature and Use of English)**
COURSE CODE	**:**	**BFEG-2**
COURSE CREDIT	**:**	**3 Credits**

COURSE OBJECTIVES

While studying the **Foundation in English-II (Literature and Use of English)**, the student shall be able to:

- To cultivate the creativity among the learners
- To improve the reading skills of the learners
- To enhance the vocabulary of the learners
- To develop pronunciation skills
- To imbibe the use of internet for developing language skills

COURSE OUTCOMES

After completion of the **Foundation in English-II (Literature and Use of English)**, the student will be able to:

- critically evaluate the literary texts
- read the passages effectively
- speak with good accent
- communicate through online

Block: 1Literary Texts

Rabindranath Tagore's Sacrifice and John Donne's The *Sun Rising*

Block: 2 Reading Comprehension

Reading passages-Preparing a glossary from passage- reading the meaning- respond to questions

Block: 3 Vocabulary and Grammar

Synonyms and Antonyms- Homophones-Making of Nouns-Making of Adjectives-Compound Words-Phrases and Idioms-Words often confused-Spelling- Tenses

Block: 4 Pronunciation and Spoken English

Importance of English-Pronunciation: An Exposition-Speech Sounds-Sounds and Spelling: The Relationship-Attributes of Good Speech-Dialogue Situations/ Situational Dialogues

Block: 5 The Internet English

Email-Chat Groups-Virtual Words-The Web-Commentary

References:

1. *Balasubramanian T. English* Phonetics for Indian *Students* - A Workbook. 2016.
2. Daniel Jones. *Cambridge English Pronouncing Dictionary*. Cambridge University Press, 2011.
3. Tagore, Rabindranath. *Sacrifice and Other Plays.*Niyogi Books, 2012.

Web Resources:

1. https://www.poetryfoundation.org/podcasts/75363/the-sun-rising
2. https://nptel.ac.in/courses/109/103/109103135/
3. https://nptel.ac.in/content/storage2/courses/109106085/downloads/03-%20Phonetics%20and%20Phonology-%20week%203.pdf
4. https://nptel.ac.in/courses/109/106/109106085/
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Climatology and Oceanography**
COURSE CODE	**:**	**BGEOS_21**
COURSE CREDIT	**:**	**4 Credits**

COURSE OBJECTIVES

While studying the **Climatology and Oceanography**, the student shall be able to:

CO1 Describe the scope and contents of climatology
CO2 Explain the Atmospheric circulation
CO3 Classify the Humidity
CO4 Classification of Climate
CO5 Role of Ocean on climate.

COURSE OUTCOMES

After completion of the **Climatology and Oceanography**, the student will be able to:

CLO1 Insight climate and weather and the factors, distribution of temperature and heat budget.
CLO2 Classifying the atmospheric pressure, wind and Indian monsoon
CLO3 Identifying different forms and types of humidity and fronts.
CLO4 Comparing the types of climatic classifications
CLO5 Analysing the surface configuration, salinity, and ocean circulation.

Syllabus Details

Block 1: Scope and content of Climatology

1. Definition – weather and climate, Structure of the atmosphere –
2. Insolation, Horizontal and vertical distribution of Temperature
3. Heat budget.

Block 2: Atmospheric Circulations

4. Atmospheric Pressure – horizontal distribution of pressure.
5. Wind and Types: Planetary winds, periodic winds, Local winds, cyclones and types
6. Indian Monsoon

Block 3: Humidity:

7. Forms and Types Condensation; Clouds and its types
8. Precipitation: Types and Distribution.

9. Air Masses and Front Types.

Block 4: Classification of Climate

10. Koppen's Classification of Climate
11. Thorthwait's classification of Climate
12. Recent Theories of Indian Monsoon

Block 5: Importance of Ocean

13. Surface configuration the ocean floor
14. Salinity in the seas and oceans; Coral reefs and types.
15. Circulation of oceanic water: waves, tides and currents
16. currents of the Atlantic, Pacific and Indian Ocean

References

1. Barry, R. G., and Chorley, R. J., (2009): Atmosphere, Weather and Climate (9th Edition), Routledge, New York.
2. Lal, D.S. (1996), Chaitanya Publishing House, Allahabad.
3. Critchfield, H. J., (1987): General Climatology, Prentice-Hall of India, New Delhi
4. Sverdrup, K. A. and Armbrust, E. V., (2008): An Introduction to the World Ocean, McGraw Hill, Boston.
5. Pinet, P. R., (2008): Invitation to Oceanography (Fifth Edition), Jones and Barlett Publishers, USA, UK and Canada.

Web Reference

- **https://rwu.pressbooks.pub/webboceanography/chapter/8-1-earths-heat-budget/**
- **https://www.pmfias.com/temperature-distribution-earth-heat-budget-heat-balance-seasonal-temperature-distribution/**
- **https://www.geographynotes.com/articles/humidity-and-precipitation-useful-notes/816**
- **http://www.physicalgeography.net/fundamentals/7v.html**

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TAMIL NADU OPEN UNIVERSITY
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DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Practical: Mapping Techniques-1**
COURSE CODE	**:**	**BGEOS_P1**
COURSE CREDIT	**:**	**2 Credits**

COURSE OBJECTIVES

While studying the **Mapping Techniques-1**, the student shall be able to:

CO1 Determine the construction and conversion of Map scale
CO2 Demonstrate the Measurement in map
CO3 Representation of Climatic data
CO4 Representation of Rainfall and Wind-rose Diagram
CO5 Representation of Relief features

COURSE OUTCOMES

After completion of the **Mapping Techniques-1,** the student will be able to:

CLO1 Demonstrating the construction and conversion of Map scale
CLO2 Demonstrating the Measurement of distance, area, reduction, and enlargement of map
CLO3 Constructing various climatic diagrams
CLO4 Constructing Rainfall and Wind-rose Diagram
CLO5 Constructing of various Relief features

Syllabus Details

Block 1: Map Scale:

1. Determination of Map Scale
2. Construction of Graphic Scale
3. Construction of Diagonal Scale
4. Conversion of Map Scales

Block 2: Measurement

5. Measurement of Distances and Areas on Maps
6. Enlargement and Reduction of Maps

Block 3: Climatic diagram:

7. Representation of Climatic Data by Isopleths

8. Climographs

9. Columnar Diagrams

Block 4: Rainfall and Wind-rose Diagram

10. Rainfall Dispersion Diagrams

11. Wind-rose Diagrams

12. Synoptic Weather Charts

Block 4: Representation of Relief

13. Preparation of a Contour Map

14. Representation of Relief Features by Contours

15. Drawing of Profiles

16. Drawing of Hypsometric Curves

Class Record:

Each student will submit a record containing 10 exercises minimum of two from each block.

References:

1. Ajai, S. G. and Sanjaya, S.G. (2009) Statistical Methods for Practice and Research, Sage Publications, New Delhi.
2. Berry, B. J. L. and Marble, D. F. (eds.): Spatial Analysis–A Reader in Geography.
3. Sharma, J. P., (2010) PrayogicBhugol, Rastogi Publishers, Meerut.
4. Singh, R. L. and Singh, R. P. B., (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi.
5. Misra, R.P., (2014): Fundamentals of Cartography (Second Revised and Enlarged Edition), Concept Publishing, New Delhi.
6. Robinson, A. H., (2009): Elements of Cartography (6th Edition), John Wiley and Sons, New York.
7. Sarkar, A., (2015): Practical geography: A systematic approach, Orient Black Swan Private Ltd., New Delhi.

Web Resource

1. https://www.sfei.org/book/export/html/1321

2. https://ncert.nic.in/textbook/pdf/legy303.pdf

3. https://www.epa.gov/sites/default/files/2019-01/documents/how_to_read_a_wind_rose.pdf

4. https://www.brainkart.com/article/Methods-of-Representing-Relief-Features_33844/#:~:text=The%20important%20methods%20of%20representing,the%20relief%20of%20the%20land.

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Statistics**
COURSE CODE	**:**	**BGEOS_P2**
COURSE CREDIT	**:**	**3 Credits**

COURSE OBJECTIVES

While studying the **Statistics**, the student shall be able to:

CO1 Significant of Statistical Methods in Geography
CO2 Provide a shorthand way of describing and summarizing data
CO3 Distinguish between the Sampling types
CO4 Identifying logical and mathematical reasoning from given principles or assumptions.
CO5 Verifying the Association and Correlation between the data sets.

COURSE OUTCOMES

After completion of the **Statistics,** the student will be able to:

CLO1 Inciting the uses of statistical methods, sources, and scale of measurement in Geography.
CLO2 Practicing the crosstabulation, Central Tendency, Standard Deviation, and summarizing data
CLO3 Comparing between the Purposive, Random, Systematic and Stratified Sampling
CLO4 Practicing the methods of Probability and Normal Distributions
CLO5 Analyzing the Correlation and regression between the data sets.

Syllabus Details

Block 1: Use of Data in Geography:

1. Significance of Statistical Methods in Geography
2. Sources of Data
3. Scales of Measurement (Nominal, Ordinal, Interval and Ratio).

Block 2: Tabulation and Descriptive Statistics:

4. Frequencies Deciles, Quartiles
5. Cross Tabulation
6. Central Tendency: Mean, Median and Mode,
7. Centro-graphic Techniques, Dispersion
8. Standard Deviation, Variance and Coefficient of Variation.

Block 3: Sampling:

9. Purposive
10. Random
11. Systematic
12. Stratified

Block 4: Theoretical Distribution:

13. Probability
14. Normal Distributions

Block 5: Association and Correlation:

15. Rank Correlation
16. Product Moment Correlation
17. Simple Regression.

References:

1. Ajai, S. G. and Sanjaya, S.G. (2009) Statistical Methods for Practice and Research, Sage Publications, New Delhi.
2. Hammond, P. and McCullagh, P. S., (1978): Quantitative Techniques in Geography: An Introduction, Oxford University Press.
3. Pal, S. K., (1998): Statistics for Geoscientists, Tata McGraw Hill, New Delhi.
4. Rogerson,P. A., (2001) Statistical Methods for Geography, Sage Publications, New Delhi.
5. Sarkar, A. (2013): Quantitative geography: techniques and presentations. Orient Black Swan Private Ltd., New Delhi
6. Shinha, Indira., (2007):Sankhyikibhugol(Hindi). Discovery Publishing House, New Delhi.

Web Sources

1. https://statisticsbyjim.com/basics/nominal-ordinal-interval-ratio-scales/
2. https://www.scribbr.com/statistics/central-tendency/#
3. https://towardsdatascience.com/8-types-of-sampling-techniques-b21adcdd2124
4. https://unacademy.com/content/ca-foundation/study-material/statistics/theoretical-distributions/
5. https://www.theanalysisfactor.com/the-difference-between-association-and-correlation/

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DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY- FIRST YEAR: III SEMESTER (DISTANCE MODE)

(COURSE TITLE) : **-2**

(COURSE CODE) : **BFTM-03**

(COURSE CREDIT) : **3 Credits**

(COURSE OBJECTIVES)

1.

(COURSE OUTCOME

1.

பிரிவு - 1 **எட்டுத்தொகை - புறநானூறு**

எட்டுத்தொகைஅறிமுகம் - புறநானூறு - அதியமான் நெடுமானஞ்சியை ஔவையார் பாடியது(புறம். 91) - வேள்பாரியைக் கபிலர் பாடியது (புறம். 107) - வையாவிக்கோப்பெரும்பேகனைப் பரணர் பாடியது (புறம். 142) - பாண்டியன் ஆரியப்படை கடந்த நெடுஞ்செழியன் பாடல் (புறம். 183) - சேரமான் கணைக்கால் இரும்பொறை பாடல் (புறம். 74) - பொன்முடியார் பாடல் (புறம். 312) - ஔவையார் பாடல் (புறம். 91) - பெருங்கோப்பெண்டு பாடல் (புறம். 248)- கணியன்பூங்குன்றனார் பாடல் (புறம். 192) - நரிவெருஉத்தலையார் பாடல் (புறம். 195) - தொடித்தலைவிழுத்தண்டினார் பாடல் (புறம். 243) - பூதப்பாண்டியன்மனைவிபெருங்கோப்பெண்டு பாடல் (புறம். 248)

பிரிவு - 2 **நற்றிணை, குறுந்தொகை**

அகத்திணைபாடல்கள் - அன்பின்ஐந்திணை - நற்றிணை - குறுந்தொகை - பாடப்பகுதி - நற்றிணையில்குறிஞ்சி (1) – முல்லை (142) - மருதம் (210) – நெய்தல் (172) - பாலை (284) - குறுந்தொகையில் குறிஞ்சி (40) - முல்லை (167) - மருதம் (8) - நெய்தல் (290) – பாலை(135).

பிரிவு - 3 **கலித்தொகை**

கலித்தொகை - ஐந்திணைபாடியபுலவர்கள் – பாலைக்கலி (9)- பாலைபாடியபெருங்கடுங்கோ - குறிஞ்சிக்கலி கபிலர் பாடல்(51) - நெய்தல்கலிநல்லந்துவனார்பாடல் (133).

பிரிவு - 4 **பத்துப்பாட்டு – நெடுநல்வாடை**

பத்துப்பாட்டுஅறிமுகம் - நெடுநல்வாடை - இரண்டு களம்கொண்ட நாடகம் போன்றது - நெடுநல்வாடை - அகமாபுறமா? - வாடைக்கால வருணனை - அரண்மனைத்தோற்றம் - அந்தப்புர அமைப்பு - அரசியின்இல்லமும்படுக்கையும் - புனையாஓவியம்கடுப்ப அரசி -

தோழியர், செவிலியர்அரசியை ஆற்றுதல் - உரோகிணியை நினைத்து அரசியின்பெருமுச்சு - பாசறையில் அரசன் - முன்னோன் முறைமுறைகாட்டல் - நள்ளென்யாமத்தும்பள்ளிக்கொள்ளான் - நெடியவாடை - பிரிவுத்துயர்ப்படும்அரசிக்கு - பாசறையில்பணிகொட்டும் இரவிலும் தூங்காமல் புண்பட்டவீரரைப்பார்க்கவந்தஅரசனுக்குநெடுநல்வாடைபெயர்ப்பொருத்தம்.

பிரிவு - 5 **திருக்குறள்**

பதினென்கீழ்க்கணக்கு - அறிமுகம் - திருக்குறள் - முப்பால் - பாடப்பகுதி - தீமையிலாத சொல்லுதல் வாய்மை -நெஞ்சமும்வாய்மையும் - வாய்மை எல்லா அறமும் தரும் - அகம் தூய்மை - முயற்சிப்பதுசிறப்பு - முயற்சியில்லாதவனது நன்மை - வறுமைக்குக் காரணம் - முயற்சி விடற்பாலதுஅன்று - தலைவியின்குறிப்பினைத் தலைவன் அறிதல் - நாணமும்மகிழ்ச்சியும் அறிதல் -அயலவர்போல்சொல்லினும் குறிப்பறிதல் - அவள் நகைப்பின்நன்மைக் குறிப்பு - தோழிதனக்குள்ளேசொன்னது.

பிரிவு - 6 **நாலடியார், பழமொழி நானூறு**

செல்வம்சகடக்கால் போல வரும் - பெண் கல்வி - கல்வி அழகே அழகு - கல்வி கரையிலகற்பவர்நாள்சில - நாய் அனையார்கேண்மை - கால்கால்நோய்காட்டுவர்பொதுமகளிர் - குலவிச்சைகல்லாமல்பாகம்படும் - நாய் பெற்ற தெங்கம் பழம் - நுணலும் தன் வாயால் கெடும் -நிறைகுடம் நீர்த்ளும்பல்இல் - இறைத்தோறும்ஊறும் கிணறு

பிரிவு - 7 **ஏலாதி, திரிகடுகம், ஆசாரக்கோவை**

அன்புடையார்க்குஉள்ள ஆறு குணம் - எழுத்தின்வனப்பே வனப்பு - யாருக்கெல்லாம் ஈதல் வேண்டும்? திரிகடுகம் போலும் மருந்து - இம்மூன்றும் நன்மை பயத்தல்இல - இவர் மூவர் பெய் எனப்பெய்யும் மழை - முந்தையோர் கண்ட முறை - என்றும் அசையாத உள்ளத்தவர் - திறத்துளிவாழ்தும் என்பார் - பேதைகள்அல்லார்புகாஅர்.

பிரிவு - 8 **இன்னாநாற்பது, இனியவை நாற்பது**

கடனுடையார்காணப் புகல் - உணர்வார் உணராக்கடை - யாம் என்பவரொடு நட்பு - இளமையுள்மூப்புப்புகல் - தொன்மை உடையார் கெடல் - எனைமாண்பும் தான் இனிது - ஈதல் எத்துணையும்ஆற்றஇனிது - திறம்தெரிந்து வாழ்தல் இனிது - அறிந்துஉரைத்தல் ஆற்ற இனிது - கற்றலின்காழ்இனியதுஇல்.

பிரிவு - 9 **சிலப்பதிகாரம் – கனாத்திறம்உரைத்த காதை**

சிலப்பதிகாரம் - அமைப்பியல் விளக்கம் - காப்பியக்கதைச் சூழல் - காதையின்கதைச்சுருக்கம் - அகனகர் வருணனை - மாலதி பாலளிக்கப் பாலகன் சோர்தல் - பாசண்டச்சாத்தற்குப்பாடுகிடந்த மாலதி - இடுபிணம் தின்னும் இடாகினிப் பேய் - பாசண்டச்சாத்தனின்அருளுதவி -தேவந்தி கதை - கண்ணகி தான்கண்டகனவுரைத்தல் - பீடு அன்று - கோவலன் வருகை -சிலம்புளகொண்ம்.

பிரிவு - 10 **மணிமேகலை – ஆபுத்திரன் திறம் அறிவித்த காதை**

மணிமேகலைகர்ப்பிய அமைப்பு - முன்கதைச் சுருக்கம் - கதை நிகழும் சூழல் - காதையின்கதைச்சுருக்கம் - அபஞ்சிகன் மனைவி சாலி ஈன்ற குழவி - ஆ பாலுட்டி வளர்த்தல் - ஆமகன் அல்லன் என் மகன் - ஆபுத்திரன் கல்வி கற்றல் - புலைசூழ வேள்வி - நள்ளிருளில்கொண்டுநடக்குவன் - நீ மகன் அல்லாய்நிகழ்ந்ததைஉரையாய் - இதனொடு வந்த செற்றம் என்னை - சிறியை நீ, அவஆமகன் அதற்கு ஒத்தனை - ஆவொடு வந்த அழிகுலம் உண்டோ?.

பார்வைநூல்கள்:

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2. [illegible] 13-1 [illegible]

3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]

TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY - SECOND YEAR: III SEMESTER (DISTANCE MODE)

COURSE TITLE : Foundation in English-III (Soft Skills)

COURSE CODE : BFEG-3

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **Foundation in English-III (Soft Skills)**, the student shall be able to:

- To cultivate the positive mind
- To improve body language
- To develop interview skills
- To prepare a comprehensive CV
- To enhance interpersonal skills

COURSE OUTCOMES

After completion of the **Foundation in English-III (Soft Skills),** the student will be able to:

- Approach the life positively
- Communicate in good manner
- Join in a team in working place
- Develop an impressive CV
- Express managerial skills

Block: 1 Introduction to Soft Skills

Soft Skills: An Introduction – Definition and Significance of Soft Skills; Process, Importance and Measurment of Soft Skill Development- Self-Discovery: Discovering the Self; Setting Goals; Beliefs, Values, Attitude, Virtue. 3. Positivity and Motivation: Developing Positive Thinking and Attitude; Driving out Negativity; Meaning and Theories of Motivation; Enhancing Motivation Levels.

Block: 2 Body Language & Etiquettes

Non-Verbal Communication: Importance and Elements; Body Language- Social and Business.

Block: 3 Group Discussion& Interview Skills

Interviewer and Interviewee - in-depth perspectives- Before, During and After the Interview- Tips for Success- Meaning, Types and Models, Group and Ethical Decision-Making, Problems and Dilemmas in application of these skills

Block: 4 Preparation of Curriculum Vitae' (CV)

Definition of CV and its purposes- CV versus Resume- Rules- Covering Letter

Block: 5 Emotional Intelligence Skills

Meaning, History, Features, Components, Intrapersonal and Management Excellence; Strategies to enhance Emotional Intelligence.

References:

1. Dhanavel S.P. *English and Soft Skills.* Orient Blackswan India, 2010.
2. Ghosh B.N. (Ed.) *Managing Soft Skills for Personality Development.* McGraw Hill India, 2012.

Web Resources:

1. https://onlinecourses.nptel.ac.in/noc19_hs33/preview
2. https://nptel.ac.in/courses/109/107/109107121/

TAMIL NADU OPEN UNIVERSITY
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DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY - SECOND YEAR: III SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Human Geography**
COURSE CODE	**:**	**BGEOS_31**
COURSE CREDIT	**:**	**4 Credits**

COURSE OBJECTIVES

While studying the **Human Geography**, the student shall be able to:

CO1 Describe the Nature and Scope of Human geography
CO2 Categorize the Space and Society
CO3 Enumerate the Population growth and distribution
CO4 Assess the Rural Settlements
CO5 Assess the Urban Settlements

COURSE OUTCOMES

After completion of the **Human Geography**, the student will be able to:

CLO1 Describing the Nature and Scope of Human geography
CLO2 Categorize the Space and Society based on Cultural Regions Race, Religion and Language
CLO3 Computing the Population growth and distribution
CLO4 Appraising the Concept, Characteristics, Types, problem, and planning of Rural Settlements
CLO5 Appraising the Concept, Urbanization, Functional Classification of Urban Settlements

Syllabus Details

Block 1: Human Geography: Nature and Scope

1. Nature and scope of Human Geography
2. Major Themes
3. Contemporary Relevance

Block 2: Space and Society

4. Cultural Regions
5. Race, Religion and Language

Block 3: **Population**

6. Population Growth and Distribution.
7. Population Composition.
8. Demographic Transition Theory

Block 4: Rural Settlements

9. Concept, Characteristics and Factors
10. Types and Patterns.
11. Regional characteristics and Morphology
12. Rural problem and planning.

Block 5: Urban Settlements

13. Concept and Characteristics
14. Urbanization and influencing factors
15. urbanization in India and World
16. Functional Classification of urban centers.

References

1. Chandna, R.C., (2017): Population Geography, Kalyani Publishers, New Delhi.
2. Daniel, P.A. and Hopkinson, M.F. (1989): The Geography of Settlement, Oliver &Boyd, London.
3. Hassan, M.I. (2005): Population Geography, Rawat Publications, Jaipur
4. Hussain, Majid., (2012): ManavBhugol,Rawat Publications, Jaipur.
5. Johnston, R., Gregory, D., & Pratt, G., et al. (2008): The Dictionary of HumanGeography, Blackwell Publication.
6. Kaushik, S.D., (2010): ManavBhugol, Rastogi Publication, Meerut.
7. Maurya, S.D., (2012): ManavBhugol, ShardaPustakBhawan, Allahabad.
8. Rozenblat., Celine., Pumain., Denise and Velasquez., Elkin Eds. (2018): Internationaland Transnational Perspectives on Urban Systems, Springer, Japan, pages 393.
9. Singh, R.B., Ed. (2015): Urban Development Challenges, Risk and Resilience in Asian
10. Mega Cities-Sustainable Urban Future of Emerging Asian Mega Region, Springer,Tokyo, Pages 488, 2015.

Web Sources

1. https://blogs.prepladder.com/human-geography-nature-and-scope-ncert-notes-upsc/
2. https://egyankosh.ac.in/handle/123456789/57305
3. https://www.opengeography.org/ch-6-population--migration.html
4. https://unacademy.com/content/upsc/study-material/human-geography/rural-settlement-patterns/
5. https://www.thegeographeronline.net/urban-settlements.html

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TAMIL NADU OPEN UNIVERSITY
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DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY- SECOND YEAR: III SEMESTER (DISTANCE MODE)

COURSE TITLE : Geography of Health and Wellbeing

COURSE CODE : BGEOS_32

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying the **Geography of Health and Wellbeing**, the student shall be able to:

CO1 Identify the concept and Perspectives on Health

CO2 Relationship between the Environmental Quality and Health

CO3 Explore the exposure and Health Risks

CO4 Distinguish between the Health and Disease Pattern in Environmental Context

CO5 Correlative the Climate Change and Human Health

COURSE OUTCOMES

After completion of the **Geography of Health and Wellbeing**, the student will be able to:

CLO1 Finding the new Perspectives on geography of Health and wellbeing

CLO2 Analysing the relationship between the Environmental Quality and Health

CLO3 Explore the exposure of pollution, pandemic, endemic and epidemic diseases

CLO4 Health and Disease Pattern Communicable and Lifestyle related diseases in Environmental Context

CLO5 Correlative the Climate Change and Human Health and health care delivery system.

Syllabus Details

Block 1: Perspectives on Health:

1. Geography of Health and Wellbeing: Definition, concept, and Dimensions
2. Development and health
3. Driving forces in health and environmental trends
4. Population dynamics, urbanization, poverty, and inequality.

Block 2: Pressure on Environmental Quality and Health:

1. Human activities and environmental Pressure
2. Land use and agricultural development
3. Industrialization; Transport and Energy

Block 3: Exposure and Health Risks:

4. Air pollution, Water Pollution impacts on Health
5. Epidemics, Endemic and Pandemic Diseases: Covid 19.

Block 4: Health and Disease Pattern in Environmental Context (with reference to India).

6. Types of Diseases and their regional pattern: Communicable
7. Types of Diseases and their regional pattern: Lifestyle related diseases.

Block 5: Climate Change and Human Health

8. Changes in climate system – heat and cold
9. Biological disease agents
10. Food production and nutrition
11. Health care delivery system

References

1. Avon, Joan, L. and Jonathan, A, Patzed (2001): Ecosystem Changes and Public Health,Baltimin, John Hopling Unit Press(ed).
2. Akhtar Rais (Ed.), 1990: Environment and Health Themes in Medical Geography, AshishPublishing House, New Delhi.
3. Avon Joan L. and Jonathan A Patzed.2001: Ecosystem Changes and PublicHealth,Baltimin,JohnHopling Unit Press(ed).
4. Bradley, D., 1977: Water, Wastes and Health in Hot Climates, John Wiley Chichesten.
5. Modelling, Boston Kluwer Academic Press.
6. Cliff, A.D. and Peter,H., 1988 : Atlas of Disease Distributions, Blackwell Publishers,Oxford.
7. Gatrell, A.,andLoytonen, 1998: GIS and Health, Taylor and Francis Ltd, London.
8. Hardham T. and TannavM., (eds): Urban Health in Developing Countries; Progress,Projects,Earthgoan, London.

Web Sources

1. http://www.depts.ttu.edu/geospatial/center/geog3340/documents/lectures/lecture7.pdf
2. https://www.cdc.gov/hrqol/wellbeing.htm
3. https://health.gov/healthypeople/objectives-and-data/browse-objectives/environmental-health#
4. https://www.eea.europa.eu/soer/2010/synthesis/synthesis/chapter5.xhtml
5. https://www.learner.org/series/the-habitable-planet-a-systems-approach-to-environmental-science/risk-exposure-and-health/
6. https://www.epa.gov/climate-change/climate-change-and-human-health
7. https://www.nhp.gov.in/health-and-climate-change_pg

TAMIL NADU OPEN UNIVERSITY
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DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY - SECOND YEAR: III SEMESTER (DISTANCE MODE)

COURSE TITLE : Geography of Tourism

COURSE CODE : BGAL21_31

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **Geography of Tourism**, the student shall be able to:

CO1 To equip with a basic understanding of nature and scope, of tourisms.

CO2 Interpretation of nature of tourism and their different patterns

CO3 Identify the recent trends in Tourism in various level.

CO4 Impact of tourism based o**n** Economy, Environment and Society

CO5 Analyzing the Tourism Infrastructure, sites, World Heritage Sites, National Geological Monuments and Policies

COURSE OUTCOMES

After completion of the **Geography of Tourism**, the student will be able to:

CLO1 Insite the basic concepts and issues and geographical parameters

CLO2 Interpretating of nature of tourism and their different patterns such as Cultural Tourism, Medical Tourism and Pilgrimage and Geo-tourism

CLO3 Identifying the recent trends in Tourism in the level of International and Regional and Domestic (India)

CLO4 Analyzing the Economic, Environmental and Societal impacts on tourism

CLO5 Analyzing the Tourism Infrastructure, sites, World Heritage Sites, National Geological Monuments and Policies.

Syllabus Details

Block 1: Scope and Nature

1. Concepts and Issues
2. Tourism, Recreation and Leisure Interrelations
3. Geographical Parameters of Tourism by Robinson.

Block 2: Trends and Patterns

4. Nature of Tourism and Cultural Tourism,
5. Medical Tourism and Pilgrimage and Geo-tourism.

Block 3: Recent Trends of Tourism

6. International and Regional and Domestic (India) level
7. Eco-Tourism and Sustainable Tourism
8. Meetings Incentives Conventions and Exhibitions

Block 4: Impact of Tourism

9. Economy
10. Environment
11. Society

Block 5: Tourism in India:

12. Tourism Infrastructure.
13. Case Studies of Himalaya, Desert and Coastal Areas
14. India's World Heritage Sites
15. National Geological Monuments
16. National Tourism Policy

References:

1. Alan, A. Lew, (2017): New Research Paradigms in Tourism Geography, Routledge.
2. Dhar, P.N., (2006): International Tourism: Emerging Challenges and Future Prospects,Kanishka, New Delhi.
3. Hall, M., and Stephen, P., (2006): Geography of Tourism and Recreation – Environment, Place and Space, Routledge, London.
4. Kamra, K. K., and Chand, M., (2007): Basics of Tourism: Theory, Operation and Practise, Kanishka Publishers, Pune.
5. Nelson, V., (2017): An Introduction to the Geography of Tourism, Rowman &Littlefield.
6. Singh, Jagbir., (2014): "Eco-Tourism", I.K. International Pvt. Ltd. New Delhi, India.
7. Tourism Recreation and Research Journal, Centre for Tourism Research and Development, Lucknow.
8. Widawski, K., and Wyrzykowski, J., (2017): The Geography of Tourism of Central and Eastern European Countries, Springer.

Web Sources

1. https://regionalhindi.blogspot.com/2020/06/robinson-geographical-parameters-of.html
2. https://www.goodfellowpublishers.com/free_files/Chapter%203-3eafc3ad2892037d0881f6276a8499c0.pdf
3. https://www.tutorialspoint.com/tourism_management/tourism_management_trends_and_future.htm
4. https://www.oecd.org/els/health-systems/48723982.pdf
5. https://tourism.gov.in/sites/default/files/2021-05/INDIA%20TOURISM%20STATISTICS%202020.pdf
6. https://www.nios.ac.in/media/documents/tourism_337_courseE/337_Tourism_Eng/337_Tourism_Eng_L13.pdf

TAMIL NADU OPEN UNIVERSITY

SCHOOL OF SCIENCES

DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY- SECOND YEAR: IV SEMESTER (DISTANCE MODE)

(COURSE TITLE) : **-2**

(COURSE CODE) : **BFTM-04**

(COURSE CREDIT) : **3 Credits**

(COURSE OBJECTIVES)

1.

(COURSE OUTCOME

1.
2.

பிரிவு - 1 **சீவகசிந்தாமணி – குணமாலையார்இலம்பகம்**

சீவகசிந்தாமணி - காப்பிய அமைப்பு - முன்கதைச்சுருக்கம் - இலம்பகத்தின்கதைச்சுருக்கம் - கண்ணப்பூசல் - குணமாலையும்சுரமஞ்சரியும்பொழிலாடல் - சுரமஞ்சரி சூளுரை - கண்ணப்பொடியுடன் தோழியர் - மீன்சூழ்மாமதிபோல்சீவகன் - தோழியார் வேண்டல் - சீவகன் தீர்ப்புரை - வாரம் பட்டுழித்தீயவும்நல்லவாம் - வண்டுகளின் தீர்ப்பு - இடியுண்டநாகம்போல்சுரமஞ்சரி - குணமாலையின்இனிய பண்பு.

பிரிவு - 2 **கம்பராமாயணம் – நகர்நீங்கு படலம்**

கம்பராமாயணம் - முன்கதைச்சுருக்கம் - படலத்தின்கதைச் சுருக்கம் - மகளிர் அவலம் - விலங்குகளின்அவலம் - பிற மக்களின் அவலம் - மரவுரியில் இராமன் - மனத்துயரில் சீதை - வருவென்ஈண்டுவருந்தலை நீ - தீய வெஞ்சொல்செவிசுடத்தேபுவாள் - என்னை என்னை இருத்தி என்றாய் - நின் பிரிவினுஞ்சுடுமோபெருங்காடு - சீதையும் மரவுரி தரித்தல் - எல்லையற்ற இடர் தருவாய் என்றான்.

பிரிவு - 3 **சங்ககாலம் (கி.மு. 300 – கி.பி. 100)**

முச்சங்கவரலாறு - சங்கம் இருந்ததா? இல்லையா? ஒரு சங்கம் இருந்ததற்கானசான்றுகள் - எட்டுத்தொகை நூல்கள் - பத்துப்பாட்டு நூல்கள் - சங்க காலம் ஒரு பொற்காலம்

பிரிவு - 4 **பதினெண்கீழ்க்கணக்குக் காலம் (கி.பி. 100 – கி.பி. 600)**

களப்பிரர்காலம் - தமிழக வரலாற்றின் இருண்ட காலம் - அகத்திணை நூல்கள் -

புறத்திணைநூல்களில்போர்பற்றியது - அறநூல்கள்

பிரிவு - 5 **காப்பியகாலம் (கி.பி. 200 – கி.பி. 1100)**

தமிழின்முதல் காப்பியம் - இரட்டைக்காப்பியங்கள் - ஐம்பெருங்காப்பியங்கள் - ஐஞ்சிறுங்காப்பியங்கள் - தமிழின் பிற காப்பியங்கள்.

பிரிவு - 6 **தமிழ்இலக்கியத்தில் சமணர், பௌத்தர் செல்வாக்கு**

தமிழகத்தில்சமணர் செல்வாக்கு - தமிழகத்தில்பௌத்தர் செல்வாக்கு

பிரிவு – 7 **மரபுத்தொடர்கள், இணைமொழிகள்**

எதிர்மறைக்குறிப்புத் தொடர் - இடக்கரடக்கல் - மங்கலவழக்குத் தொடர் -வசைமொழித் தொடர் -சுவைதரும்வெளிப்பாட்டுத் தொடர் - பிற மரபுத்தொடர்கள் - ஒருபொருள் இணைமொழிகள் -எதிர்நிலைஇணைமொழிகள் - பிற இணைமொழிகள் - வட்டாரஇணைமொழிகள் - கிகரகீகாரமொழிகள்.

பிரிவு – 8 **சொற்பொழிவுத்திறன் பயிற்சி**

இலக்கியச்சொற்பொழிவு - சமயச் சொற்பொழிவு - அரசியல் சொற்பொழிவு - பிற சொற்பொழிவுகள் -குறிப்புகள் சேகரித்தல் - கேளாரும்வேட்பமொழியும் திறன் - நகைச்சுவைத் திறன் -ஈர்ப்புத் திறன் - அவிநயமும்உச்சரிப்பும்

பிரிவு – 9 **ஓரங்க நாடகம் படைக்கும்முயற்சி**

ஓரங்கநாடகம் எழுதும் படிநிலைகள் - நாடகக்கதையை முடிவுசெய்தல் - களம் பிரித்தலும்நிகழ்வுக்குறிப்பும் - உரையாடல் எழுதுதல் - நாடகப்பிரதியைச்செப்பனிடுதல் - நடிகர்கள்தேர்வு - ஒத்திகை முறைகள் - நாடக இயக்கம் - திட்டமிடுதலும்நிகழ்த்தலும் .

பிரிவு – 10 **ஐக்கூக் கவிதை புனையும்பயிற்சி**

ஈற்றடிஇலக்கணம் - உள்ளடக்கப்பாடுபொருள் இலக்கணம் - வெளிப்பாட்டு உத்தி - இயற்கையைப்பாடும்ஐக்கூ - வாழ்வியல்ஐக்கூ - காதல் ஐக்கூ - சென்ரியூ -எள்ளல் அல்லதுநகைச்சுவைஐக்கூ

பார்வைநூல்கள்:

1. [illegible], [illegible], [illegible], [illegible], [illegible]
2. [illegible], [illegible], [illegible], [illegible].
3. [illegible], [illegible], [illegible], [illegible].
4. [illegible], [illegible], [illegible], [illegible].
5. [illegible], [illegible], [illegible], [illegible], [illegible].
6. [illegible], [illegible]? [illegible], [illegible]. 1998
7. [illegible], [illegible], [illegible], [illegible], [illegible], 1994.
8. [illegible], [illegible], [illegible], 108 [illegible], [illegible], [illegible], 1991.
9. [illegible], [illegible], [illegible], [illegible], [illegible], 1994.
10. [illegible], [illegible], [illegible], [illegible], [illegible], 1994.

திரு.பட்டாபிசீத்தாரமான், ஹைக்கூ வடிவக் கவிதைகள், காவ்யா, சென்னை.

TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)

COURSE TITLE : Foundation in English (Writing Skills)

COURSE CODE : BFEG-4

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **Foundation in English (Writing Skills)**, the student shall be able to:

- Train the learners to write the academic essays
- To make them learn different steps of writing
- To develop the learners' creativity
- To distinguish between fact and opinion, cause and effect, problem and solution, similarities and differences, general and specific ideas, and relevant and irrelevant information.
- To convey information through written language
- To involve in note- taking, gathering information, drafting, free-writing, revising, proofreading, and editing when engaged in writing.

COURSE OUTCOMES

After completion of the **Foundation in English (Writing Skills)**, the student will be able to:

- write without mistakes
- draft formal and informal letters
- take notes for writing purpose
- explain the tables/ pictures in words
- edit the written matters

Block: 01 Basic Writing Skills

Learn the basic paragraph structure: main idea, supporting sentences, use of examples, conclusion- Use basic sentence structures to write a paragraph; use cohesive devices to connect sentences in a paragraph; use transitional devices for cohesion and for contrast paragraph internally and between

paragraphs (The above structures and devices to be consciously used in all writing tasks)- Understand and use text structures in paragraphs: sequencing, comparing and contrasting, relating cause and effect, problems and problem solving

Block: 02 Informal and Formal Communication

Write informal letters, applications, and official letters of request and denial- Write official e-mails, memos and notices

Block: 03 Note-Making and Summarising

Prepare notes from reading texts- Take notes from spoken texts-Summarize key ideas and information in organized points developed from the notes prepared

Block: 04 Study Skills (Information Transfer, Reference Skills)

Use charts, tables, other graphics and multimedia, as appropriate for the written texts; present summary to a group

Block: 05 Technical Editing

Technical Editing – The Big Picture- Working Collaboratively- Organization: The Architecture of Information- Visual Design and Font Selection- Editing Methods – Then and Now- The Power of Grammar, Punctuation and Spelling- Basic Copyediting- proofreading -Ethical and Legal Issues

References:

1. Graham King. *Collins Improve your writing skills*
2. Norman Coe and Robin Rycroft. *Writing Skills, A Problem-Solving Approach*. CUP.
3. Robyn Najar and Lesley Riley. *Developing Academic Writing Skills*.Macmillan Publications.
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)

COURSE TITLE : World Regional Geography

COURSE CODE : BGEOS_41

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying the **World Regional Geography**, the student shall be able to:

CO1 Observation on definition, physical elements, and space relationships of region

CO2 Finding location and their characteristics of World climatic regions

CO3 Evaluate the resource endowment and its spatial distribution and utilization for sustainable development

CO4 Synthesize and develop the idea of regional dimensions.

CO5 Outcome the regional disparity based on the geographical factors and human adaptation.

COURSE OUTCOMES

After completion of the **World Regional Geography**, the student will be able to:

CLO1 Describing the definition, physical elements, and space relationships of region

CLO2 Analysing the location and their characteristics of World climatic regions

CLO3 Appraising the resource endowment and its spatial distribution and utilization for sustainable development

CLO4 Inculcating the idea of regional dimensions.

CLO5 Outcome the regional disparity based on the geographical factors and human adaptation.

Syllabus Details

Block 1: Major Climatic Regions of the World

1. Definition of Region – Physical Elements – Space relationships.
2. Major Climatic Regions of the World: Location and Characteristics.
3. Equatorial Regions
4. Highland and lowland Regions

Block 2: Tropical Regions

5. Tropical Monsoon
6. Tropical Grassland
7. Tropical Deserts

Block 3: Warm Temperate Regions:

8. Mediterranean
9. Temperate Grasslands
10. China Type

Block 4: Cool temperate Regions:

11. British type or Marine West Coasts
12. Siberian type
13. Laurentian type

Block 5: Polar Regions:

14. High land or ice cap type
15. Lowland or Tundra type

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2. Douglas.L.J., (2009) World Regional Geography, 10th Edition, PearsonEducation, Inc., New Jersey.
3. Oliver H. Heintzelman, Richard M. Highsmity J.R. (1965) – World Regional Geography – Printice Hall of India (P) Ltd., New Delhi.
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7. Darshan singhmanku (1998), A Regional Geography of the world, kalyani publishers, New Delhi.

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2. http://thebritishgeographer.weebly.com/the-climate-of-tropical-regions.html
3. https://www.insightsonindia.com/world-geography/physical-geography-of-the-world/climatology/world-climatic-regions/koeppens-classification/warm-temperate-climates
4. https://gacbe.ac.in/pdf/ematerial/18BGE63C-U4.pdf
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)

COURSE TITLE : Practical: Mapping Techniques II

COURSE CODE : BGEOS_P2

COURSE CREDIT : 2 Credits

COURSE OBJECTIVES

While studying the **Mapping Techniques II**, the student shall be able to:

CO1 Demonstrating the calculation of Measure of Central Tendency

CO2 Demonstrating the calculation Frequency Distribution

CO3 Demonstrating the Map Reading

CO4 Demonstrating the calculation Aerial Photo Interpretation

CO5 Demonstrating the calculation Satellite Imagery Interpretation

COURSE OUTCOMES

After completion of the **Mapping Techniques II**, the student will be able to:

CLO1 Proving the calculation of Measure of Central Tendency

CLO2 Proving the calculation Frequency Distribution

CLO3 Interpreting the sign and symbols of Topographical Sheets

CLO4 Interpreting Aerial Photo and calculating the scale, distance, Hight of the flight and the area covered.

CLO5 Interpreting the Satellite Imagery based on the elements.

Syllabus Details

Block 1: Measure of Central Tendency

1. Mean
2. Median
3. Mode
4. Standard Deviation.

Block 2: Frequency Distribution:

5. Histogram frequency Curve
6. Ogive Curve.
7. Scatter Diagram

8. Simple Correlation Rank correlation.

Block 3: Map Reading

9. Conventional signs and Symbols:
10. Types and numbering of Indian Topographical sheets
11. Interpretation of Indian Topographical Maps.
12. Correlation between Physical features and settlements.

Block 4: Aerial Photo Interpretation

13. Marginal information of aerial photographs
14. Elements of aerial photographs
15. Determination of scale, distance, height and area.

Block 5: Satellite Imagery Interpretation

16. Marginal information of satellite images
17. Elements of image interpretation
18. Interpretation of Satellite Imageries.

Class Record:

Each student will submit a record containing 10 exercises minimum of two from each block.

References:

1. Ajai, S. G. and Sanjaya, S.G. (2009) Statistical Methods for Practice and Research, Sage Publications, New Delhi.
2. Berry, B. J. L. and Marble, D. F. (eds.): Spatial Analysis–A Reader in Geography.
3. Sharma, J. P., (2010) PrayogicBhugol, Rastogi Publishers, Meerut.
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5. Misra, R.P., (2014): Fundamentals of Cartography (Second Revised and Enlarged Edition), Concept Publishing, New Delhi.
6. Robinson, A. H., (2009): Elements of Cartography (6th Edition), John Wiley and Sons, New York.
7. Sarkar, A., (2015): Practical geography: A systematic approach, Orient Black Swan Private Ltd., New Delhi.

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2. https://www150.statcan.gc.ca/n1/edu/power-pouvoir/ch8/5214814-eng.htm
3. https://gistbok.ucgis.org/bok-topics/map-reading
4. https://ncert.nic.in/textbook/pdf/kegy306.pdf
5. https://openjicareport.jica.go.jp/pdf/11709581.pdf
6. https://www.nateko.lu.se/sites/nateko.lu.se/files/um-flygbilderintro2image_interpretation_2016_english_v3.pdf

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)

COURSE TITLE : Information Technology

COURSE CODE : BGEOSA_41

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **Information Technology**, the student shall be able to:

CO1 Recognize of basics of Computer like generation, classification input and output devices.
CO2 Recognize of Memory Units of computer hardware
CO3 Analyse the Internet and Networking
CO4 Aware of basic software in the computer
CO5 Apply of web and mobile mapping

COURSE OUTCOMES

After completion of the **Information Technology**, the student will be able to:

CLO1 Insiting the basics of Computer like generation, classification input and output devices.
CLO2 Distinguishing of memory units and programming language of computer hardware
CLO3 Analysing the Internet and Networking
CLO4 Demonstrating the basic software and its usage in the computer
CLO5 Applying of web mapping and mobile mapping

Syllabus Details

Block 1: Introduction to Computers

1. Introduction to Computers
2. Generation of Modern Computers
3. Classification of Digital Computer Systems
4. Anatomy of a Digital Computer Input and output Devices

Block 2: Memory Units:

5. RAM, ROM, PROM, EPROM, and EEPROM Auxiliary Storage Devices
6. Programming Languages: Machine Language, Assembly Language,
7. High Level Language, Types of High-Level Language,
8. Compiler and Interpreter.

Block 3: Internet and Networking

9. Number Systems
10. Networking
11. Communication Media,
12. Internet and Intranet, email
13. Cloud computing

Block 4: Basic Software

14. Introduction to Software,
15. MS-Word,
16. MS-Excel and MS Access
17. Power Point and

Block 5: Applications

18. Web mapping applications
19. Mobile applications

References

1. Rajaraman, v., 2018. Introduction to Information technology Publisher phi learning pvt. Ltd publication, ISBN: 9387472302, 9789387472303
2. Alexis Leon and Mathews Leon., 1999. Fundamentals of Information Technology", Leon TECH World.
3. Pelin Aksoy, Laura DeNardis., 2007. Information Technology in Theory - Cengage Learning publishing, ISBN: 1423901401, 9781423901402
4. Peter Norton., 1998. Introduction to Computers, TMH 6th Edition (for Units IV, V Chapters 13,14)
5. Stephen Doyle., 2000. Understanding Information Technology - Nelson Thornes publication, ISBN: 0748736093, 9780748736096

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2. https://psu.pb.unizin.org/ist110/chapter/5-2-human-computer-interaction/
3. https://tutorialsjoint.com/anatomy-of-digital-computer/
4. https://benchpartner.com/anatomy-of-a-digital-computer
5. http://www.igntu.ac.in/eContent/IGNTU-eContent-799042056712-MA-Linguistics-4-HarjitSingh-ComputationalLinguistics-1.pdf

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TAMIL NADU OPEN UNIVERSITY
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DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)

COURSE TITLE : ENVIRONMENTAL STUDIES

COURSE CODE : CCE

COURSE CREDIT : 2 Credits

COURSE OBJECTIVES

While studying the **Environmental Studies**, the student shall be able to:

- To help students to gain the fundamental knowledge of the environment
- To create in students an awareness of current environmental issues
- To inculcate in students an eco-sensitive, eco-conscious and eco-friendly attitude.

COURSE OUTCOMES

After completion of the **Environmental Studies**, the student will be able to:

- Articulate the interdisciplinary context of environmental issues
- Adopt sustainable alternatives that integrate science, humanities and social perspectives
- Appreciate the importance of biodiversity and a balanced ecosystem

Block : 1

The Multi-disciplinary nature of environmental studies - Definition, scope and importance - Need for public awareness.

Block :2

Natural Resources - Renewable and non- renewable resources - Natural resources and associated problems.

- Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
- Water resources: Use and over – utilization of surface and ground water, floods, drought, conflicts over water, dams – benefits and problems.
- Mineral resources**:** Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity case studies.

- Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.
- Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

Role of an individual in conservation of natural resources - Equitable use of resources for sustainable lifestyles.

Block :3

Ecosystems - Concept of an ecosystem - Structure and function of an ecosystem - Producers, consumers and decomposers - Energy flow in the ecosystem - Ecological succession - Food chains, food webs and ecological pyramids - Introduction, types, characteristic features, structure and function of the following ecosystem:-

a. Forest ecosystem

b. Grassland ecosystem

c. Desert ecosystem

d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Block :4

Biodiversity and its conservation - Introduction – Definition : genetic, species and ecosystem diversity - Biogeographical classification of India - Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values - Biodiversity at global, National and local levels - India as a mega – diversity nation - Hot-spots of biodiversity - Threats to biodiversity : habitat loss, poaching of wildlife, man wildlife conflicts - Endangered and endemic species of India - Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.

Block :5

Environmental Pollution - Definition - Causes, effects and control measures of : Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards - Solid waste Management - Causes, effects and control measures of urban and industrial wastes. - Role of an individual in prevention of pollution - Pollution case studies - Diaster management: floods, earthquake, cyclone and landslides.

Block :6

Social issues and the Environment - From Unsustainable to Sustainable development - Urban problems related to energy - Water conservation, rainwater harvesting, watershed management - Resettlement and rehabilitation of people; its problems and concerns. Case studies - Environmental ethics: Issues and possible solutions - Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents, and holocaust. Case studies - Wasteland reclamation - Consumerism and waste products - Environment Protection Act - Air (Prevention and Control of Pollution) Act - Water (Prevention and control of Pollution) Act - Wildlife Protection Act - Forest Conservation Act - Issues involved in enforcement of environmental legislation - Public awareness.

Block :7

Human Population and the Environment - Population growth, variation among nations - Population explosion - Family Welfare Programme - Environment and human health - Human Rights - Value Education - HIV / AIDS - Women and Child Welfare - Role of Information Technology in Environment and human health - Case Studies.

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9. Odum,E.P..Odum, H.T.& Andrees.J.1971.Fundamenetal of Ecology, Philadelphia Saunders.
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development. OUP

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: V SEMESTER (DISTANCE MODE)

COURSE TITLE : Geography of Tamilnadu

COURSE CODE : BGEOS_51

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying the **Geography of Tamilnadu**, the student shall be able to:

CO1 Finding the Location, physical Features, soil, Natural vegetation, and wildlife resources.

CO2 Appraise the agriculture and irrigation, animal husbandry, fishing, and horticulture of Tamilnadu

CO3 Appreciate of Population Distribution, Migration and Causes, Scheduled Tribes, and Distribution in Tamilnadu

CO4 Identify the Mineral, power resources and Industrial distribution of Tamilnadu

CO5 Examine the Transport and Trade and the natural hazards in Tamilnadu.

COURSE OUTCOMES

After completion of the **Geography of Tamilnadu**, the student will be able to:

CLO1 Identifying and appraising the location, physical Features, soil, Natural vegetation, and wildlife resources.

CLO2 Analysing the agriculture and irrigation, animal husbandry, fishing, and horticultureresources of Tamilnadu

CLO3 Appreciating of Population Distribution, Migration and Causes, Scheduled Tribes, and Distribution in Tamilnadu

CLO4 Estimating the Mineral, power resources and Industrial distribution of Tamilnadu

CLO5 Examining the Transport and Trade and the natural hazards in Tamilnadu.

Syllabus Details

Block 1: Location and Physical Features

1. Geographical location, Physical features and Drainage
2. Climate
3. Soil
4. Vegetations and Wildlife

Block 2: Agriculture

5. Agriculture and Irrigation
6. Animal Husbandry
7. Fishing

8. Horticulture

Block 3: Population

8. Population Distribution
9. Migration and Causes
10. Scheduled Tribes and Distribution in Tamilnadu

Block 4: Mineral resources and Industry

11. Minerals Distribution
12. Power resources Distribution
13. Industry: Automobile, Electrical and Electronics, Software and Textile Industries.

Block 5: Transport and Trade

14. Transport network: Surface, Water and Air
15. Trade: Major Exports and Imports.
16. Natural Hazards in Tamilnadu

References

1. Kumaraswamy, S.V. (2014). Geography of Tamil Nadu (Tamil Edition), Sakthi AbiramiPathipagam, Coimbatore.
2. SHBoTN (2004). Statistical Handbook of Tamil Nadu. Department of Economics and Statistics, Government of Tamil Nadu, Chennai.
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4. http://www.tnenvis.nic.in/Database/Climate_1209.aspx
5. https://tnmines.tn.gov.in/mineral-wealth.php
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: V SEMESTER (DISTANCE MODE)

COURSE TITLE : Fundamentals of Remote Sensing

COURSE CODE : BGEOS_52

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying the **Fundamentals of Remote Sensing**, the student shall be able to:

CO1 Define the Aerial, Satellite and RadarRemote Sensing.
CO2 Processes of Remote Sensing.
CO3 Differentiate the various types of Remote Sensing
CO4 Reading theaerial Photograph
CO5 Reading the satellite imagery

COURSE OUTCOMES

After completion of the **Fundamentals of Remote Sensing**, the student will be able to:

CLO1 Defining the Aerial, Satellite and Radar Remote Sensing.
CLO2 Processes of Remote Sensing with electromagnetic radiation and atmosphere.
CLO3 Differentiating the Active and Passive, Optical-mechanical scanners and Push-broom scanners and Thermal remote sensing and Ideal Remote Sensing Systems
CLO4 Reading ofaerial Photograph
CLO5 Reading ofsatellite imagery

Syllabus Details

Block 1: Remote Sensing

1. Definition and Types: Aerial, Satellite and Radar
2. History, Organization and Development of Space Programmes

Block 2: Remote Sensing Processes

3. Introduction to Remote Sensing
4. Sources of Energy and Electromagnetic Radiations (EMR)
5. Electromagnetic Spectrum, Atmospheric Windows
6. Energy Interaction with Atmosphere and Earth

Block 3: Types of Remote Sensing and Scanners

7. Platforms, Types of Platforms and its Characteristics
8. Active and Passive, Optical-mechanical scanners and Push-broom scanners

9. Thermal remote sensing and Ideal Remote Sensing Systems

Block 4: Fundamentals of Aerial Remote Sensing:

10. Aerial Photo imaging system and types of Aerial Photographs
11. Marginal Information of Aerial Photographs
12. Elements of Photo Interpretation

Block 5: Fundamentals of Satellite Remote Sensing:

13. Types of Satellites: Geostationary and Sun-synchronous Satellites
14. Resolution: Spatial, Spectral, Radiometric and Temporal
15. Visual Image interpretation
16. Digital Image classification

References:

1. Sarkar, A. (2015): Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi
2. Anji Reddy, M. (2008): Textbook of Remote Sensing and Geographic Information System, B.S. Publication, Hyderabad
3. Campbell, J. B., (2007): Introduction to Remote Sensing, Guildford Press.
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2. https://gisgeography.com/remote-sensing-earth-observation-guide/
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY - THIRD YEAR: V SEMESTER (DISTANCE MODE)

COURSE TITLE : Geography of Settlement

COURSE CODE : BGEOS_53

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying the **Geography of Settlement**, the student shall be able to:

CO1 Expertise the Meaning, nature, scope, and basic concepts of settlement geography

CO2 Knowledge of the Concept, Characteristics,factors and problems of Rural settlement.

CO3 Knowledge of the Concept, Characteristics, Urbanization and Functional Classification of urban centers.

CO4 Examine the functions and characteristics of Central Business District

CO5 Appreciate the hierarchy of urban centres.

COURSE OUTCOMES

After completion of the **Geography of Settlement,** the student will be able to:

CLO1 Elucidating the Meaning, nature, scope, and basic concepts of settlement geography

CLO2 Explaining the Concept, Characteristics,factors, and problems of Rural settlement.

CLO3 Explaining the Concept, Characteristics, Urbanization and Functional Classification of urban centers.

CLO4 Enumerating the functions and characteristics of Central Business District

CLO5 Appreciating the hierarchy of urban centres.

Syllabus Details

Block 1: Geography of Settlements

1. Meaning, nature and scope and Settlement types.
2. Fundamental concepts in Settlement Geography.

Block 2: Rural Settlements

3. Concept, Characteristics and Factors
4. Types and Patterns.
5. Regional characteristics and Morphology
6. Rural problem and planning.

Block 3: Urban Settlements

7. Concept, Characteristics, Urbanization and influencing factors
8. Urbanization in India and World
9. Functional Classification of urban centers.

Block 4: Central Business District

10. Functions and characteristics of CBD
11. Urban Morphology: Classical models – Burgess, Homer and Hoyt,
12. Classical models: Harris and Ullman
13. Rural–Urban Fringe.

Block 5: Hierarchy of urban centers

14. Rank-Size rule
15. Central place theory
16. Urban Problems: Slums
17. Urban Planning.

References

1. Siddhartha K, (2013), Cities, Urbanisation and Urban Systems,kisalaya publication Pvt. Ltd New Delhi.
2. Majid Hussain (1999), Human Geography, Rawat Publications, Jaipur.
3. Nath V. (2007), Urbanisation, Urban Development and Metropolitan Cities in India, Concept Publishing Co. New Delhi.
4. Pacione, Michael (2001), Urban Geography - A Global Perspective, Routedge, London.
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TAMIL NADU OPEN UNIVERSITY
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DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: V SEMESTER (DISTANCE MODE)

COURSE TITLE : Disaster Studies

COURSE CODE : BGEOS_54

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **Disaster Studies**, the student shall be able to:

CO1 Define and differentiate the disasters.
CO2 Analyse Causes and consequences of Natural Disasters occurred in India.
CO3 Analyse Causes and consequences of Manmade Disasters occurred in India
CO4 Demonstrate the Response and Mitigation to Disasters
CO5 Provide the role of geography in Disaster management

COURSE OUTCOMES

After completion of the **Disaster Studies**, the student will be able to:
CLO1 Concerned the meaning and Classification of Disasters
CLO2 Examining the causes and consequences of Natural Disasters occurred in India.
CLO3 Examining the causes and consequences of Manmade Disasters occurred in India
CLO4 Demonstrating the Response and Mitigation to Disasters management
CLO5 Acquired the knowledge about the role of geography in Disaster management

Syllabus Details

Block 1: Disasters

1. Definition and Concepts
2. Risk and Vulnerability
3. Classification of Disasters

Block 2: Natural Disasters in India (1)

4. Flood: Causes, Impact
5. Landslide: Causes, Impact
6. Drought: Causes, Impact

Block 3: Natural Disasters in India (2)

7. Earthquake: Causes, Impact
8. Volcanoes: Causes, Impact

9. Tsunami: Causes, Impact
10. Cyclone: Causes, Impact

Block 4: Manmade disasters

11. Atmospheric Disasters
12. Chemical / Industrial Disasters
13. Biological Disasters

Block 5: Response and Mitigation to Disasters

14. Mitigation and Preparedness
15. NDMA, TNSDMA, NIDM and UNDM
16. Indigenous Knowledge and Community-Based Disaster Management
17. Role of geography in Disaster management.

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1. Kapur, A., 2010. Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.Suggested References
2. Savindra S. and Jeetendra S. (2013) Disaster Management,Pravalika Publications, Allahabad.
3. Govt. of India (2008) Vulnerability Atlas of India. BMTPC, New Delhi.
4. Govt. of India (2011) Disaster Management in India.Ministry of Home Affairs, New Delhi.
5. Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY -THIRD YEAR: V SEMESTER (DISTANCE MODE)

COURSE TITLE : Biogeography

COURSE CODE : BGEOS_55

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **Biogeography**, the student shall be able to:

CO1 Elucidate the meaning, nature scope and components of biogeography
CO2 Elaborate the basic Ecological Principles.
CO3 Assess the Bio- Diversity
CO4 Distinguish the various World Biomes
CO5 Identify the Ecological and Environmental Managements and conservation

COURSE OUTCOMES

After completion of the **Biogeography**, the student will be able to:

CLO1 Illuminating the meaning, nature scope and components of biogeography
CLO2 Elaborate the basic Ecological Principles like Bio-energy cycle, Tropical level and food chain and Concepts of Biome, Eco-tone and community
CLO3 Assessing the Problems of Extinction of plant and animal life and Process of Desertification and its Consequences
CLO4 Distinguish the various World Biomes: Forest, grass, and desert.
CLO5 Exercising the Ecological and Environmental Managements and conservation

Syllabus Details

Block 1: Introduction to Biogeography:

1. Nature, scope, and components
2. Origin of Fauna and Flora
3. Plants and Animal evolution throughout the geological times
4. Distribution of plant life on the earth

Block 2: Basic Ecological Principles

5. Bio-energy cycle in the Terrestrials Ecosystem
6. Tropical level and food chain.
7. Concepts of Biome, Eco-tone and community

Block 3: Biodiversity:

8. Problems of Extinction of plant and animal life

9. Process of Desertification and its Consequences
10. Industrial Effluents and their effects on freshwater Biology

Block 4: World Biomes:

11. Tropical forest
12. Tropical Grasslands
13. Temperate Grassland
14. Tropical Deserts.

Block 5: Ecological and Environmental Managements:

15. Study of Ecological regions of Himalayas and the Western Ghats
16. Conservation and Management

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5. https://biomed.brown.edu/Courses/BIO48/29.Biogeography.HTML

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)

COURSE TITLE : Geography of India

COURSE CODE : BGEOS_61

COURSE CREDIT : 4 Credits

COURSE OBJECTIVES

While studying the Geography of India, the student shall be able to:

CO1 Realize the various types of Physical features found in India
CO2 Explore the various pattern, types, and crops of agriculture in India
CO3 Appreciate the natural resources availability in India
CO4 Examine thegeographical distributionindustry related to available natural resources.
CO5 Analyse the Population resources, transport, and trade.

COURSE OUTCOMES

After completion of the Geography of India, the student will be able to:
CLO1 Realizing the various types of Physical features, drainage, climate, vegetation found in India
CLO2 Explore the various pattern of agriculture, different types of types of crops, regional disparity, and problems of agriculture in India
CLO3 Appreciating availability of minerals, power resources, multipurpose project in India
CLO4 Examine the geographical distribution industry and production and industrial regions.
CLO5 Analysing the Population resources, transport, and trade development.

Syllabus Details

Block 1: Physical Setting

1. Location and Physical Divisions
2. Drainage
3. Climate and Indian Monsoon
4. Soil and Natural Vegetation.

Block 2: Agriculture:

5. Agriculture and Irrigation types
6. Major crops: Rice, Wheat, Sugarcane, Cotton, Groundnut
7. Plantation Crops: Tea and Coffee

8. Agricultural Regions and Green revolution
9. Problems of Indian Agriculture.

Block 3: Recourses:

10. Minerals: Iron, Copper, Mica, Manganese, Bauxite, and Atomic minerals
11. Power Resources: Coal, Petroleum, Natural gas, Hydro Power
12. Multipurpose river projects and Atomic power stations
13. Need for non-conventional energy sources.

Block 4: Industries:

14. Distribution and production of major industries: Cotton and textiles, Iron and Steel, Sugar, Cement, Chemical and Automobile
15. Major industrial regions.

Block 5: Population, Transport and Trade:

16. Population: Growth, density, distribution and problems.
17. Transport: Land, water and air - Foreign trade of India.

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1. Dave, Bharati, (2018): Mapping the Quality of Living Spaces in India, Indian Research Academy, New Delhi.
2. Hussain, M., (1992): Geography of India, Tata McGraw Hill Education, New York.
3. Mamoria, C. B., (1980): Economic and Commercial Geography of India, Shiva Lal Agarwala.
4. Miller, F. P., Vandome, A. F. and McBrewster, J., (2009): Geography of India: IndoGangetic Plain, Thar Desert, Major Rivers of India, Climate of India, Geology of India, Alphascript Publishing, New Delhi.
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3. https://www.clearias.com/geography/
4. https://lotusarise.com/geography-upsc/

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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Fundamentals of Geographical Information System and GNSS**
COURSE CODE	**:**	**BGEOS_62**
COURSE CREDIT	**:**	**4 Credits**

COURSE OBJECTIVES

While studying the **Fundamentals of Geographical Information System and GNSS**, the student shall be able to:

- Realizethevarious components and principles of GIS
- Demonstrate the geospatial data management system
- Analyse the Geospatial Data
- Insite the Cartographic Principles and Project Management
- Validate the Global Navigation Satellite (GNSS)

COURSE OUTCOMES

After completion of the **Fundamentals of Geographical Information System and GNSS**, the student will be able to:

- Realizing the basic components and Data structure of GIS
- Appreciating the geospatial data acquisition, file format, Data structure and type of data.
- Analysing the various types of Geospatial Data
- Implanting the Cartographic principles, design and Project Management
- Validating segments,functioning, trend and applications of Global Navigation Satellite (GNSS)

Syllabus Details

Block 1: Introduction to GIS and Data structure

1. Definition and History of GIS – Component of GIS
2. Data structure and formats
3. Spatial and non-spatial Data,
4. Raster and Vector Data Structure.

Block 2: Geospatial Data Management

5. Geographic Data Acquisition
6. Geospatial Database Management
7. File Format

8. Data quality

Block 3: Spatial Data Analysis

9. Vector Operations: Buffering, Overlay Operation and Spatial Join
10. Raster Analysis: Scale of Analysis, Zonal Operation
11. Network Analysis and DEM

Block 4: Cartographic Principles and Project Management

12. Cartographic Principles
13. Cartographic Design
14. GIS Project Management.

Block 5: Global Navigation Satellite System (GNSS)

15. Introduction to GNSS
16. Space Segment, Control Segment and User segment
17. Recent trends and Applications

References

1. Kumar, Dilip, Singh, R.B. and Kaur, Ranjeet (2019): Spatial Information Technology for Sustainable Development Goals, Springer.
2. Bhatta, B., (2010): Analysis of Urban Growth and Sprawl from Remote Sensing, Springer, Berlin Heidelberg.41
3. Chauniyal, D.D. (2010): SudurSamvedanevamBhogolikSuchanaPranali, Sharda Pustak Bhawan, Allahabad
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4. https://libguides.ucd.ie/gisguide/gisbooks
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TAMIL NADU OPEN UNIVERSITY
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DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Practical: Mapping Techniques III**
COURSE CODE	**:**	**BGEOS_P3**
COURSE CREDIT	**:**	**4 Credits**

COURSE OBJECTIVES

While studying the **Mapping Techniques III**, the student shall be able to:

CO1 Demonstrateto identify choice of Projections and types.
CO2 Demonstrate various types of distribution maps
CO3 Demonstratevariousthematic maps
CO4 Demonstratevarious types of located maps
CO5 Demonstrate cartographic overlay techniques.

COURSE OUTCOMES

After completion of the **Mapping Techniques III**, the student will be able to:

CLO1 Constructing different types of Projections and their choice.
CLO2 Drawingsingle and multiple dot maps.
CLO3 Constructing isopleth, choropleth, choroschematic and chorochromatic maps.
CLO4 Constructing Bar graph, Circle, Sphere and Flow maps
CLO5 Demonstrating cartographic overlay techniques from point, line and area data.

Syllabus Details

Block1: Map Projections

1. Criteria for Choice of Projections.
2. Attributes and Properties of: Zenithal Gnomonic Polar Case,
3. Cylindrical Equal Area,
4. Conical Projection with Two Standard Parallel.

Block 2: Distribution Maps

9. Single dot maps
10. Multiple dot maps

Block 3: Thematic Maps

11. Isopleths
12. Choropleth,

13. Choro schematic
14. chorochromatic

Block 4: Located Maps:

15. located diagrams:Bar graph
16. located diagrams:Circle
17. located diagrams:Sphere
18. located diagrams:Flow maps

Block 5: Cartographic Overlays

19. Point Data
20. Line Data
21. Areal Data

Class Record:

Each student will submit a record containing 10 exercises minimum of two from each block.

References:

1. Singh, R. L, and Duttta, P. K., (2012): PrayogatamaBhugol, Central Book Depot, Allahabad
2. Cuff, J. D. and Mattson, M. T., (1982): Thematic Maps: Their Design and Production, Methuen Young Books
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)

COURSE TITLE	**:**	**Economic Geography**
COURSE CODE	**:**	**BGEOS_63**
COURSE CREDIT	**:**	**3 Credits**

COURSE OBJECTIVES

While studying the **Economic Geography**, the student shall be able to:

CO1 Appreciate the basic concept of Economic Geography

CO2 Examine the significance and relevance of theories in relation to the location of different economic activities

CO3 Appreciate the various types of Primary Activities

CO4 Appreciate the various types of Secondary Activities

CO5 Appreciate the various types of Tertiary and Quaternary Activities

COURSE OUTCOMES

After completion of the **Economic Geography**, the student will be able to:

CLO1 Appreciating the basic concept, approaches and basic concepts and pattern of Economic Geography

CLO2 Significance and relevance of theories in relation to the location of different economic activities

CLO3 Realising the various types of agriculture forming

CLO4 Valuing the various types of industrial Activities

CLO5 Appreciating the various types of transport, trade and communication Activities.

Syllabus Details

Block 1: Concept of Economic Geography

1. Definition, Approaches and Fundamental Concepts of Economic Geography.
2. Patterns of Development.

Block 2: Locational Theories

3. Agriculture (Von Thunen)
4. Industrial (Weber).

Block 3: Primary Activities

5. Intensive Subsistence Farming
6. Commercial Grain Farming and Plantation,
7. Commercial Dairy Farming

8. Commercial Fishing
9. Mining (iron ore, coal and petroleum).

Block 4: Secondary Activities

10. Cotton Textile Industry,
11. Petro-Chemical Industry,
12. Major Manufacturing Regions.

Block 5: Tertiary and Quaternary Activities

13. Modes of Transportation
14. Patterns of International Trade
15. Information and Communication Technology.

References

1. Andrew Wood, Susan Roberts., 2012. Economic Geography: Places – Routledge publication Networks and Flows, ISBN:1136899464, 9781136899461
2. Bagchi-Sen S. and Smith H. L., 2006. Economic Geography: Past, Present and Future, Taylor and Francis.
3. Coe N. M., Kelly P. F. and Yeung H. W., 2007. Economic Geography: A Contemporary Introduction, Wiley-Blackwell.
4. Combes P., Mayer T. and Thisse J. F., 2008. Economic Geography: The Integration of Regions and Nations, Princeton University Press.
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TAMIL NADU OPEN UNIVERSITY
SCHOOL OF SCIENCES
DEPARTMENT OF GEOGRAPHY

B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)

COURSE TITLE : Population Geography

COURSE CODE : BGEOS_64

COURSE CREDIT : 3 Credits

COURSE OBJECTIVES

While studying the **Population Geography**, the student shall be able to:

CO1 Aware of Nature and Scope of Population Geography

CO2 Significance and relevance to the theories of Population growth.

CO3 Demonstrate various types of Measures, Determinants, and Implications of Population Dynamics.

CO4 Analyse the population Composition and Characteristics

CO5 Examine population dynamics and characteristic with contemporary issues

COURSE OUTCOMES

After completion of the **Population Geography**, the student will be able to:

CLO1 Concerned about the nature and scope of Population Geography and its sources of data, distribution, growth, determinants and pattern.

CLO2 Significance and relevance of theories of Population growth: Malthusian Theory and Demographic Transition Theory.

CLO3 Demonstrate various types of Measures, Determinants, and Implications of Population Dynamics.

CLO4 Analysing the population Composition and Characteristics

CLO5 Examining population dynamics and characteristic with contemporary issues

Syllabus Details

Block 1: Defining the Field

1. Nature and Scope of Population Geography
2. Sources of Data with special reference to India (Census, Vital Statistics and NHS).
3. Population Size, Distribution and Growth
4. Determinants and Patterns

Block 2: Theories of Population Growth

5. Malthusian Theory
6. Demographic Transition Theory.

Block 3: Population Dynamics: Measures, Determinants and Implications

7. Fertility and Mortality
8. Migration and Disability

Block 4: Population Composition and Characteristics

9. Age-Sex Composition
10. Rural and Urban Composition
11. Literacy

Block 5: Contemporary Issues

12. Ageing of Population
13. Social Vulnerability
14. Gender equity
15. Future Migration
16. Environmental sustainability

References:

1. Bhende, A. and Kanitkar, T., (2000): Principles of Population Studies, Himalaya Publishing House.
2. Chandna, R C (2006): JansankhyaBhugol, Kalyani Publishers, Delhi
3. Jones, H. R., (2000): Population Geography, 3rd ed. Paul Chapman, London.
4. Lutz, W., Warren, C. S. and Scherbov, S., (2004): The End of the World Population Growth in the 21st Century, Earthscan
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3. https://www.umsl.edu/~naumannj/Geography%20PowerPoint%20Slides/population/PopulationGeography.ppt
4. https://pressbooks.pub/humangeography/chapter/2-1/

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