GOVERNMENT ARTS COLLEGE (Autonomous),

(Re-accredited with 'A' Grade by NAAC and Affiliated to Bharathidasan University, Tiruchirappalli)

KARUR - 639 005.

UG

COURSE STRUCTURE

Course Structure under CBCS System

(Applicable to the Candidates admitted from the Academic Year 2021 – 2022 onwards)

B.Sc.,

GEOGRAPHY

GOVERNMENT ARTS COLLEGE (Autonomous),

KARUR - 639 005

Course structure under CBCS system

UNDERGRADUATE COURSES

ABOUT THE DEPARTMENT OF GEOGRAPHY

This Course provides an insight into the physical geography such as Geomorphology, Climatology, Oceanography etc. Regional and Economic Geography pertaining to different regions are also studied in this course. In addition to this, Cartography, Basics in Remote Sensing and GIS and surveying with different instruments are taught. Teaching at school level, Cartography, Draftsman, surveyor and Tourist guide are some of the jobs the B.Sc., Course can offer.

GOVERNMENT ARTS COLLEGE (AUTONOMOUS)

VISION

It is our vision to persuade every mind in this temple of learning to tirelessly seek the truth to face the challenges of the times and honestly participate in the establishment of universal peace, progress and love.

MISSION

It is our mission to create in everyone an honest searching mind to be ready for value-based creative citizenship for regional, national and global peace and progress.

PG AND RESEARCH DEPARTMENT OF GEOGRAPHY

VISION

- To provide the students with the educational experiences of the highest quality which makes them highly competitive and capable of facing challenges in life.

MISSION

- Providing educators with effective and relevant professional development, support and materials focusing on geographic concept and content.
- Imparting training in analytical, technical and communication skills that are essential for participating actively and successfully in a rapidly Changing environment.
- Leading the development of academic, educational and research directions of human and natural systems, urban and rural problems and geospatial information science, harnessing the integrative nature of geographic science to answer fundamental questions of global Importance.

What is Credit system?

Weightage to a course is given in relation to the hours assigned for the course. The following Table shows the correlation between credits and hours. However, there could be some flexibility because of practical, field visits, tutorials and nature of project work.

For UG courses, a student must earn a minimum of **140 (+4)** credits as mentioned in the table below. The total number of minimum courses offered by a department is given in the course pattern.

UNDER GRADUATE COURSE PATTERN (2021 ONWARDS)

PART	SEMESTER	SPECIFICATION	NO. OF COURSES	HOURS	CREDITS	TOTAL CREDITS
I	I - IV	Part I	**4**	**22**	**12**	**24**
II	I - IV	Part II	**4**	**22**	**12**	
III	I - VI	Core courses Theory	**9**	**49**	**42**	**92**
		Core Course Practical	**4**	**23**	**17**	
	I - IV	Allied Course Theory	**4**	**20**	**12**	
		Allied Course Practical	**4**	**8**	**8**	
	V - VI	Elective Course	**3**	**15**	**13**	
IV	I - V	Value Education Environmental Studies Soft Skills Development	**3**	**6**	**6**	**20 + (4)**
	I - III	Value Added Course (CLP)	**2**	**4**	**2**	
		Extra Credit Course (MOOC)	**1**	**-**	**2**	
	III - IV	Non Core Elective	**2**	**4**	**4**	
	V	Skill Based Elective - Theory	**3**	**6**	**12**	
V	VI	Gender Education	**1**	**1**	**1**	**2**
		Extension Activities	1	-	1	
TOTAL				**180**	**140 (+4)**	**140 (+4)**

Course Pattern

The Undergraduate degree course consists of five vital components. They are as follows:

Part - I: Language (Tamil)

Part - II: General English

Part - III: Core Course (Theory) Allied, Core Electives)

Part - IV: Value Education, Value Added Course, Extra Credit Course, Environmental Studies, Non Core Elective and Soft Skills Development.

Part - V: Gender Education and Extension Activities (NSS, NCC, Sports and Games, PEC, FAPA, YRC, RRC, RC, LC and CC).

Core Courses

A core course is the course offered by the parent department related to the major subjects, components like theories, practical's, Project work, field visits and etc.

Noncore elective

Noncore elective Core should be shared by the various Departments of college. This course should be opted by all the students belonging to the particular Department. Each department of the respective college should allocate themselves the schedule and the units of the course.

Core Elective

The core elective course is also offered by the parent department. The objective is to provide choice and flexibility within the department. There are THREE core electives. They are offered in different semesters according to the choice of the college.

Extra Credit Courses

In order to facilitate the students gaining extra credits, the extra credit courses are given. There are two extra credit courses - Massive Open Online Courses (MOOC) and Skill-based Course - offered in the III and V Semesters respectively. According to the guidelines of UGC, the students are encouraged to avail this option of enriching by enrolling themselves in the MOOC provided by various portals such as SWAYAM, NPTEL, etc. Skill based course is offered by the department apart from their regular class hours.

Value Education Courses

There are four courses offered in the first semesters for the First year students.

Non-Major Elective / Skill Based Elective

These courses are offered in two perspectives as electives "Within college".

Subject Code Fixation

The following code system (11 characters) is adopted for Under Graduate courses:

Year of Revision	UG Code of the Dept	Semester	Specification of Part	Running number in the part
↓	↓	↓	↓	↓
21	**U21**	***x***	***x***	***xx***
21	**UGE**	**1**	**x**	**1**

For example:

I B.Sc – Climatology - I,

The code of the paper is **U21 GE 1C1.**

Thus, the subject code is fixed for other subjects.

EXAMINATION

Continuous Internal Assessment (CIA):

UG - Distribution of CIA Marks	
Passing Minimum: 40 Marks	
THEORY CIA MAXMIMUM = 25	THEORY CIA MINIMUM = 10
PRACTICAL CIA MAXIMUM = 40	PRACTICAL CIA MINIMUM = 16

End - Semester Tests

Centralized - Conducted by the office of Controller of Examinations.

Semester Examination

Testing with Objective and Descriptive questions.

Section - A: 10 Questions x 2 Marks = 20 Marks (No Choice - Two questions from each unit)

Section - B: 5 Questions x 5 Marks = 25 Marks (Either… or Type - One pair from each unit)

Section - C: 3 Questions x 10 Marks = 30 Marks (3 Out of 5 - One question from each unit)

Duration of Examination:

3- Hours examination for courses.

Grading System

1. Grading

Once the marks of the CIA and the end-semester examination for each of the courses are available, they will be added. The marks thus obtained, will then be graded as per the scheme provided in Table 1.

From the second semester onwards the total performance within a semester and the continuous performance starting from the first semester are indicated by **Semester Grade Point Average (GPA)** and **Cumulative Grade Point Average (CGPA),** respectively. These two are calculated by the following formulae

$$\text{GPA} = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} C_i} \qquad \text{WAM (Weighted Average Marks)} = \frac{\sum_{i=1}^{n} C_i M_i}{\sum_{i=1}^{n} C_i}$$

Where, 'C_i' is the Credit earned for the Course - i,

'G_i' is the Grade Point obtained by the student for the Course 'i'.

'M' is the marks obtained for the course 'i', and

'n' is the number of Courses **Passed** in that semester.

CGPA: Average GPA of all the Courses starting from the first semester to the current semester.

2. Classification of Final Results

i) For each of the three parts, there shall be separate classification on the basis of the CGPA, as indicated in the following Table - 2.

ii) For the purpose of Classification of Final Results, the Candidates who earn CGPA 9.00 and above shall be declared to have qualified for the Degree as 'Outstanding'. Similarly, the candidates who earn the CGPA between 8.00 - 8.99, 7.00 - 7.99, 6.00 - 6.99 and 5.00 - 5.99 shall be declared to have qualified for their Degree in the respective programmes as 'Excellent', 'Very Good', 'Good' and 'Above Average' respectively.

iii) Absence from an examination shall not be taken as an attempt.

Table - I - Grading of the Courses

Marks Range	Grade Point	Corresponding Grade
90 and above	10	O
80 and above but below 90	9	A+
70 and above but below 80	8	A
60 and above but below 70	7	B+
50 and above but below 60	6	B
40 and above but below 50	5	C
Below 40	0	RA

Table – 2 – Final Result

CGPA	Classification of Final Results	Corresponding Grade
9.00 and above	O	Outstanding
8.00 to 8.99	A+	Excellent
7.00 to 7.99	A	Very Good
6.00 to 6.99	B+	Good
5.00 to 5.99	B	Above Average
4.00 to 4.99	C	Average
Below 4.00	RA	Re - Appearance

Credit based weighted Mark System is adopted for individual semesters and cumulative semesters in the column 'Marks Secured' (for 100).

Declaration of Result:

Mr./Ms. _____ has successfully completed the Under Graduate in _____ programme. The candidate's Cumulative Grade Point Average (CGPA) in Part - III is _____ and the class secured is _____ by completing the minimum of 140 credits. The candidate has acquired _____ (if any) extra credits offered by the parent department courses.

PROGRAMME OUTCOMES

1. Understand the geomorphic and climatic process of the earth.
2. Acquire knowledge on oceans, human population and resources.
3. Gain knowledge on map making process and the skills of surveying with different instruments.
4. Analyse the regions and economy of India, Tamil Nadu and Asia.
5. Develop environmental awareness and consciousness.

PROGRAMME SPECIFIC OUTCOMES

1. Enriche with the knowledge of solar system, the earth, and its land and water distribution.
2. Understand the man-land relationship.
3. Able to analyse the weather and climate and associated phenomena.
4. Understand the importance of oceans and the dynamics of ocean water.
5. Assess the regional and economic nature of India with special emphasis on Tamil Nadu.
6. Analyse the distribution of world resources, its evaluation and the importance.
7. Apply the technology of Remote Sensing and GIS in geographic studies at basic level.

GOVERNMENT ARTS COLLEGE (AUTONOMOUS): KARUR – 639 005

(Re-accredited with 'A' Grade by NAAC and Affiliated to Bharathidasan University, Tiruchirapalli)

B.Sc., GEOGRAPHY COURSE STRUCTURE UNDER CBCS SYSTEM

(For the candidates admitted from the year 2021 -22 onwards)

SEMESTER	PART	COURSE	COURSE TITLE	COURSE CODE	INSTR.HOURS WEEK	CREDIT	EXAM HOURS	MARKS		TOTAL
								INT	ESE	
I	I	Tamil - I	Tamil - I	**U21L1T1**	5	3	3	25	75	100
	II	English - II	English - II	**U21L2T2**	5	3	3	25	75	100
	III	Core Course - I	Climatology	**U21GEIC1**	6	5	3	25	75	100
		Core Course - II	Practical - I Scales, Relief & Climatic Diagrams	-	3	-	-	-	-	-
		First Allied Course - I	Statistics - I	**U21GE1A1**	5	3	3	25	75	100
		First Allied Course - II	Statistics - II - Practical	-	2	-	-	-	-	-
	IV	Value Education	Value Education	**U21VE1**	2	2	3	25	75	100
		Value added Course	CLP/SAP (Special Assistance Programme)	-	2	-				
					30	**16**				**500**
II	I	Tamil - II	Tamil - II	**U21L2T2**	5	3	3	25	75	100
	II	English - II	English - II	**U21L2E2**	5	3	3	25	75	100
	III	Core Course - II	Practical – I Scales, Relief & Climatic Diagram	**U21GE2C2P**	3	4	3	40	60	100
		Core Course - III	Geomorphology	**U21GE2C3**	6	5	3	25	75	100
		First Allied Course - II	Statistics - II - Practical	**U21GE2A2P**	2	4	3	40	60	100
		First Allied Course - III	Statistics - III	**U21GE2A3**	5	3	3	25	75	100
	IV	Environmental Studies	Environmental Studies	**U21ES2**	2	2	3	25	75	100
		Value added course	CLP/SAP (Special Assistance Programme)	-	2	(2)	3			
					30	**24**				**700**
III	I	Tamil - III	Tamil - III	**U21L3T3**	6	3	3	25	75	100
	II	English - III	English - III	**U21L3E3**	6	3	3	25	75	100
	III	Core Course - IV	Oceanography	**U21GE3C4**	6	5	3	25	75	100
		Core Course - V	Practical - II - Map Interpretation & Socio Economic Data Representation	-	3	-	-	-	-	-
		Second Allied Course - I	Geology - I	**U21GL3A1**	5	3	-	25	75	100
		Second Allied Course - II	Geology - II - Practical	-	2	-	-	-	-	-
	IV	Non Core Elective - I	Speak Better and Write Better	**U21EN3N1**	2	2	3	25	75	100
		Extra Credit Course	Massive open Online Course (MOOC)	-		(2)				
					30	**16**				**500**

IV	I	Tamil - IV	Tamil - IV	**U21L4T4**	6	3	3	25	75	100
	II	English - IV	English - IV	**U21L4E4**	6	3	3	25	75	100
	III	Core Course - V	Practical - II - Map Interpretation & Socio Economic Data Representation	**U21GE4C5P**	2	4	3	40	60	100
		Core Course - VI	Geography of Asia	**U21GE4C6**	5	5	3	25	75	100
		Second Allied Course - II	Geology - II - Practical	**U21GL4A2P**	2	4	3	40	60	100
		Second Allied Course - III	Geology - III	**U21GL4A3**	5	3	3	25	75	100
	IV	Skill Based Elective - I	Geography of Tourism	**U21GE4S1**	2	4	3	25	75	100
		Non Core Elective - II	English for Competitive Examination	**U21EN4N2**	2	2	3	25	75	100
					30	**28**				**800**
V	III	Core Course - VII	Human Geography	**U21GE5C7**	5	5	3	25	75	100
		Core Course - VIII	Cartography	**U21GE5C8**	5	4	3	25	75	100
		Core Course - IX	Geography of Tamil Nadu	**U21GE5C9**	4	3	3	25	75	100
		Core Course -X	Practical - III - Remote sensing: Mapping and Interpretation	-	3	-	-	-	-	-
		Core Course - XI	Practical - IV Map Projection and Surveying	-	3	-	-	-	-	-
		Elective Course - I	Basics of Remote Sensing & GIS	**U21GE5E1**	4	4	3	25	75	100
	IV	Skill Based Elective - II	World Regional Geography	**U21GE5S2**	2	4	3	25	75	100
		Skill Based Elective - III	Disaster Studies	**U21GE5S3**	2	4	3	25	75	100
		Soft Skill Development	Soft Skills Development	**U21SSD3**	2	2	3	25	75	100
					30	**26**				**700**
VI	III	Core Course - X	Practical - III - Remote Sensing: Mapping and Interpretation	**U21GE6C10P**	3	4	3	40	60	100
		Core Course - XI	Practical - IV - Map Projection and Surveying	**U21GE6C11P**	3	5	6	40	60	100
		Core Course - XII	Geography of India	**U21GE6C12**	6	5	3	25	75	100
		Core Course - XIII	Geography of Resources	**U21GE6C13**	6	5	3	25	75	100
		Elective Course - II	Bio Geography	**U21GE6E2**	5	5	3	25	75	100
		Elective Course - III	Settlement geography	**U21GE6E3**	6	4	3	25	75	100
	V	Extension Activities	Extension Activities (NSS / NCC / RRB / YRC / FINE ARTS/ Environmental Education / Population Education club / Rotaract club / Leo club / Consumer club / Sports & Games)		-	1	-	-	-	-
			Gender Education	**U21EA4**	1	1	3	25	75	100
					30	**30**				**700**
		TOTAL			**180**	**140 + (4)**				**3900**

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BOARD OF STUDIES IN GEOGRAPHY

CONTROLLER OF EXAMINATIONS

Teaching, learning and evaluation methods:
Conventional black board, chalk and talk method, OHP LCD, Smart board, Models, Charts, Mind Maps, Quiz. Online Quiz. Open book exams, Online Teaching. Examination, Group Discussion, Debate. Seminars, Live Specimens, Museum Specimens and Field Visit

Bloom's Taxonomy Action verbs used for course objectives, outcomes and question setting. (K)*					
KI	**K2**	**K3**	**K4**	**K5**	**K6**
REMEMBERING	**UNDERSTANDING**	**APPLYING**	**ANALYSING**	**EVALUATING**	**CREATING**
List, Define, Describe, Recall Arrange, List, Outline, State Identify, etc	Comprehension, Explain, Summarise Describe, Illustrate, Review, Classify, Clarify, Distinguish, Estimate, Give Example(S), Identify, etc.	Apply, Interpret, Manipulate, Relate, Use Compute, Demonstrate Illustrate, Sketch, Solve, etc	Analyze, Compare Relate, Categorize Criticize, Diagram, Differentiate, Distinguish, Infer, Examine, Outline, Experiment, Discuss, Point Out, etc	Judge, Justify Assess, Estimate, Evaluate, Interpret Compare, Conclude, Describe, Explain, Determine, etc	Create, Judge, Design, Rewrite Summarize Categorize, Develop, Formulate, Generate, Revise, Rearrange, Synthesize, etc.

***KNOWLEDGE LEVEL**

Mapping of Student Learning Outcomes*							
		COGNITIVE PROCESS DIMENSION					
	BLOOM'S TAXONOMY REVISED (example verbs for learning Outcomes in italics)	**REMEMBERING** Recall and retrieval of foundational disciplinary information.	**UNDERSTANDING** Make meaning out of information.	**APPLYING** Use information in a similar situation.	**ANALYZING** Take apart information and explore component connections.	**EVALUATING** Examine critically and judge.	**CREATING** Create something new.
KNOWLEDGE DIMENSION	**A. FACTUAL KNOWLEDGE** Foundational information in a discipline	*List*	*Summarize*	*Respond*	*Select*	*Check*	*Generate*
	B. CONCEPTUAL KNOWLEDGE Connection of foundational elements to overall structure and function	*Recognize*	*Classify*	*Provide*	*Differentiate*	*Determine*	*Assemble*
	C. PROCEDURAL KNOWLEDGE Methods for investigating and acting	*Recall*	*Clarify*	*Carry out*	*Integrate*	*Judge*	*Design*
	D. META-COGNITIVE KNOWLEDGE Reflection on thinking in the discipline	*Indentify*	*Predict*	*Use*	*Deconstruct*	*Reflect*	*Create*

*(Sources - Anderson L.W. Krathwohl D.R. January 2001**. A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives,** Edition 1st Publisher New York Longman, ISBN ISBN 0321084055 9780321084057 - Anderson & Krahwohl and A Model for Learning Objectives, Lowa State University Center for Excellence in lerarning and Teaching).

CREDIT: 5 **COURSE CODE: U21GE1C1**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAHY – I SEMESTER – CORE COURSE- I

(For the candidates admitted from the year 2021-22 onwards)

CLIMATOLOGY

COURSE OBJECTIVES :

1. To understand the concepts of weather, climate and components.
2. To learn about the nature of atmosphere and wind systems of the world.
3. To acquire knowledge on the types and forms of precipitation and climatic regions of the world.

UNIT - I	Climate: Definition - Weather and Climate - components of climate - Composition and structure of atmosphere.
UNIT - II	Insulation: Controlling Factors - Distribution - Heat Budget of the earth and atmosphere; Temperature: Controlling factors - Horizontal distribution - Vertical Distribution - Inversion of temperature.
UNIT - III	Atmospheric Pressure: Horizontal distribution - Major pressure belts of the World - Shifting of pressure belts: Winds - Planetary winds - Monsoons - Local winds - Jet streams.
UNIT - IV	Atmospheric Moisture: Humidity - definition - Ways of Expressing Humidity, Condensation - Precipitation - Forms and types; Cloud and itsmajor types.
UNIT - V	Cyclone and Anticyclone: origin and associated weather - Koppen's climatic classification.

REFERENCE BOOKS :

1. Lal, D.S, (2010): Fundamentals of Climatology, Chaitanya Publishing House, Allahabad.
2. Critchfield. J.H. (1975) General Climatology, Prentice Hall of India, Pvt. Ltd, New Delhi
3. Aswathi.A,(1995) Indian climatology, APH Publishing corporation, New Delhi.
4. Singh,S. (2005) Climatology, Prayag Pustak Bhavwan, Allahabad.
5. Oliver, J.E and J.J. Hidove, (2002) Climatology - An Atmospheric Science, Pearson, Education, Delhi.
6. Trewarta, G.T (1968) , An Introduction to Climate, McGraw – Hill Kogakuga, Ltd, Tokyo
7. Lockwood, J.G (1985) World Climatic System, Eward Arnold, Londaon.

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COURSE OUTCOMES:

Students must be able to:

1. Differentiate weather and climate and understand the composition and structure of atmosphere.
2. Analyse the heat budget of the earth and atmosphere and distribution of temperature with its controlling factors.
3. Synthesize the major pressure belts and wind systems of the world.
4. Indentify the forms of precipitation, clouds and its types.
5. Understand the nature of cyclones and anti-cyclones and the characteristics of climatic regions of Koppen.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	3	1	--	2	2	1	2	3	2	1	2	2	3.00
CO2	1	2	--	1	2	2	2	3	2	1	1	1	2.57
CO3	3	2	--	2	2	1	1	3	2	1	1	1	2.71
CO4	2	2	--	1	1	1	3	2	2	2	2	2	2.86
CO5	1	3	2	2	2	1	1	3	2	2	1	2	3.14
Overall mean score for COs													2.86

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.86 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. S. MOORTHY

CHAIRMAN - BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE2C2P**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – II SEMESTER – CORE COURSE- II

(For the candidates admitted from the year 2021-22 onwards)

PRACTICAL – I SCALES, RELIEF & CLIMATIC DIAGRAMS

COURSE OBJECTIVES :

1. Understanding the methods of construction of map scales.
2. Acquiring knowledge on map enlargement and reduction and depiction of landforms by contours.
3. Understanding the techniques of climatic diagrams.

UNIT - I	**Scales** ➢ Definition ➢ Types ➢ Conversion **Construction of** ➢ Plain ➢ Linear ➢ Comparative ➢ Diagonal
UNIT - II	**Measurement of** ➢ Distance ➢ Areas ➢ Directions and Bearings.
UNIT - III	**Methods of** ➢ Enlargement ➢ Reduction
UNIT - IV	**Representation of Relief features on Maps** ➢ Methods of Depiction of landforms by Contours
UNIT - V	**Representation of Climatic Data** ➢ Line Diagram ➢ Bar Diagram ➢ Climograph ➢ Hythergraph ➢ Ergograph ➢ Simple Wind Rose diagram

REFERENCE BOOKS :

1. Singh, R.L, (1991) Elements of Practical Geography – Kalyani Publishers, New Delhi.
2. Monk house and Willkinson (1976) Maps and Diagrams, Metuhuen & Co, London.
3. Gobal Singh () Map Work and Practical Geography, Vikas Publishing House Pvt Ltd, New Delhi.

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COURES OUTCOMES:

Students must be able to:

1. Draw and compute map scales of different kinds.
2. Measure the distance, areas and find the directions on maps.
3. Reduce and enlarge maps of different scales manually to the required size.
4. Depict landforms by contours.
5. Represent the data related to climate by means of graphs and diagrams.

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	1	1	2	2	2	1	1	1	1	1	1	2	2.29
CO2	1	1	2	2	1	2	1	1	2	2	2	1	2.57
CO3	--	--	3	2	1	1	2	1	1	2	1	2	2.29
CO4	3	2	2	2	2	1	2	2	1	2	1	2	3.14
CO5	2	2	1	1	1	2	1	2	2	1	2	1	2.57
Overall mean score for COs													2.57

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.57 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. T. KAVITHA

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5 **COURSE CODE: U21GE2C3**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – II SEMESTER – CORE COURSE- III

(For the candidates admitted from the year 2021-22 onwards)

GEOMORPHOLOGY

COURSE OBJECTIVES :

1. Understanding the nature of solar system.
2. To be able to differentiate the endogenetic and exogenetic forces.
3. To recognize the landforms created by the respective forces.

UNIT - I	Geomorphology: Meaning, Nature and Scope - Solar System - Origin of the Earth - Nebular Hypothesis - Internal Structure of the Earth.
UNIT - II	Rocks: Igneous - Sedimentary - Metamorphic; Weathering - Mass Wasting and its Types.
UNIT - III	Earth Movements: Endogenetic Forces - Folding - Faulting - Earthquakes, Volcanoes - Continental Drift - Plate Tectonics.
UNIT - IV	Exogenetic Process: Rivers - Under Ground Water: Erosional and depositional landforms - Karst Topography.
UNIT - V	Glaciers: Types - Erosional and depositional landforms; Aeolian landforms. Sea waves and coastal landforms.

REFERENCE BOOKS :

1. Ahmad, E., (1985) Geomorphology, Kalian Publishers, New Delhi.
2. Bloom, A.L, (2003) Geomorphology a Systematic Analysis of Late Cenozoic Landforms, Pearson Education, Delhi.
3. Dayal. P., (1996) A Text Book of Geomorphology, Shakla Book Depot, Patna.
4. Thornbury, W.D., (1969) Principles of Geomorphology, Wiley Eastern Limited, NewDelhi.
5. Worcester, P.G (1948) A Text Book of Geomorphology Van Nuswand Reinhold Company, New York.

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COURSE OUTCOMES:

Students must be able to:

1. Synthesize the nature of the earth, the internal structure and hypothesis on earth's origin.
2. Indentify the rocks type, understand the concept of mass wasting and its types.
3. Gain knowledge on earth movements and associated land forms.
4. Analyse the landforms created by rivers and underground water.
5. Analyse the landforms created by glaciers, wind and sea waves.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	**Programme Outcomes(POs)**					**Programme Specific Outcome (PSOs)**							**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**	
CO1	**3**	**1**	**2**	**1**	**2**	**3**	**3**	**2**	**2**	**--**	**2**	**2**	**3.29**
CO2	**2**	**--**	**--**	**1**	**--**	**3**	**2**	**2**	**1**	**1**	**1**	**2**	**2.14**
CO3	**2**	**2**	**1**	**2**	**2**	**3**	**1**	**2**	**--**	**--**	**--**	**1**	**2.29**
CO4	**2**	**1**	**1**	**1**	**2**	**2**	**3**	**2**	**1**	**1**	**1**	**2**	**2.71**
CO5	**2**	**--**	**1**	**--**	**2**	**3**	**2**	**1**	**--**	**1**	**--**	**1**	**1.86**
Overall mean score for COs													**2.46**

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.46 (Very High Relationship)

Mapping Scale

Scale	**1**	**2**	**3**	**4**	**5**	**6**
Relation	**0 – 0.5**	**0.5 – 1.0**	**1.0 – 1.5**	**1.5 – 2.0**	**2.0 – 2.5**	**2.5 – 3.0**
Quality	**Very Poor**	**Poor**	**Moderate**	**High**	**Very High**	**Excellent**

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. S. MOORTHY

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5 **COURSE CODE: U21GE3C4**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – III SEMESTER – CORE COURSE- IV

(For the candidates admitted from the year 2021-22 onwards)

OCEANOGRAPHY

COURSE OBJECTIVES :

1. To acquire knowledge on the relief of ocean floor.
2. To studying the distribution of temperature and salinity of ocean water.
3. To learn the dynamic nature of ocean water and assess the ocean resources.

UNIT - I	**Oceanography**: Definition, Nature, Scope and Significance –Distribution of land and oceans – Relief features of the ocean floor: Continental Shelf, Continental Slope, Deep Sea Plains and Ocean Deeps.
UNIT - II	**Major Relief Features of the Oceans**: Atlantic, Pacific and Indian.
UNIT - III	**Temperature and salinity**: Temperature: Controlling factors - Horizontal and vertical Distribution; Salinity: Definition - controlling factors - Horizontal - Vertical distribution - Density of sea water.
UNIT - IV	**Dynamics of ocean water**: Waves: Origin – types. Tides: Origin - types and effects. Currents: Controlling factors - Currents in the Pacific, Atlantic and Indian oceans.
UNIT - V	**Marine deposits:** Types and distribution**.** Classification and distribution of Resources: Coral Reef - Conditions favourable for growth, types and distribution; Food and mineral resources – Marine Resource Organizations.

REFERENCE BOOKS :

1. Gross, M.G (1967) Oceanography Charles E Merrill Publishing Company,Ohio.
2. Moore, J.R (1967) Oceanography W.H Freeman and Company, San Francisco.
3. sharma, R.C and M vahal (1987) Oceanography for Geographers, Chaintanya Publishing Home, Allahabad.
4. Siddhartha, K (2005) oceanography a brief introduction, Kisalaya PublicationPvt, Ltd, Delhi.
5. Weisberg, J and H. parish (1974) introductory oceanography, McGraw Hill Kogakuga, Ltd, Tokyo.

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COURSE OUTCOMES:

Students must be able to:

1. Get an idea about the nature and scope of oceanography and general relief of ocean floor
2. Understand the nature of relief of Atlantic, Pacific and Indian oceans
3. Analyse the distribution of salinity and temperature of oceans with the factors controlling them.
4. Understand the dynamics of ocean water and course of ocean currents in Atlantic, Pacific and Indian oceans.
5. Identify and classify the marine deposits, resources and know the organisations associated with marine resources.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	**Programme Outcomes(POs)**					**Programme Specific Outcome (PSOs)**							**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**	
CO1	**2**	**3**	**1**	**1**	**2**	**1**	**--**	**2**	**3**	**1**	**--**	**2**	**2.57**
CO2	**1**	**1**	**--**	**1**	**2**	**2**	**1**	**2**	**2**	**1**	**1**	**2**	**2.29**
CO3	**2**	**3**	**1**	**2**	**2**	**2**	**--**	**3**	**3**	**--**	**--**	**1**	**2.71**
CO4	**1**	**3**	**--**	**2**	**2**	**1**	**1**	**2**	**1**	**1**	**1**	**2**	**2.43**
CO5	**2**	**3**	**1**	**1**	**1**	**1**	**--**	**2**	**3**	**--**	**--**	**1**	**2.14**
Overall mean score for COs													**2.43**

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.43 (Very High Relationship)

Mapping Scale

Scale	**1**	**2**	**3**	**4**	**5**	**6**
Relation	**0 – 0.5**	**0.5 – 1.0**	**1.0 – 1.5**	**1.5 – 2.0**	**2.0 – 2.5**	**2.5 – 3.0**
Quality	**Very Poor**	**Poor**	**Moderate**	**High**	**Very High**	**Excellent**

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. S. MOORTHY

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE4C5P**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – IV SEMESTER – CORE COURSE- V

(For the candidates admitted from the year 2021-22 onwards)

PRACTICAL – II MAP INTERPRETATION & SOCIO ECONOMIC DATA REPRESENTATION

COURSE OBJECTIVES :

1. To be able to interpret and appreciate the topographical maps of India.
2. To studying the methods of interpreting weather reports.
3. To learning the procedure of the construction of graphs and diagrams used to represent socio-economic data and distribution maps.

UNIT - I	**Study of Topographic Sheets of Survey of India** ➢ Conventional Signs and Symbols **Cartographic Appreciation and Interpretation** ➢ Marginal Information ➢ Extra marginal Information ➢ Intra Marginal Information ➢ Interpretation of Physical and Cultural Features
UNIT - II	**Study of Meteorological Signs and Symbols** ➢ Weather Station Model ➢ Study and Interpretation of Weather Maps of India (January – May -July-November)
UNIT - III	**Methods of Representing Socio-economic Data** ➢ Line Graph ➢ Bar Diagram ➢ Pictorial Diagram ➢ Block Diagram ➢ Proportional Circles ➢ Proportional Spheres ➢ Pie Chart ➢ Pyramid Diagram
UNIT - IV	**Mapping of Distributions** ➢ Dot Map ➢ Isopleth ➢ Choropleth

REFERENCE BOOKS :

1. Richard and Chorley - Introduction to Physical Hydrology () - Methuen & CoLtd
2. Manning, J.C (1989) Applied Principles of Hydrology, CBS Publishers. NewDelhi.
3. Ragunath, H.M, ground water hydrology,
4. Ranjit Tirtha, (2001), geography of Asia, Rawat Publications, Jaipur.
5. Negai. B.S (1986), the continent of asia, s. chand and co.(Pvt)Ltd, New Delhi.

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE OUTCOMES:

Students must be able to:

1. Understand the meaning of all conventional signs and symbols which are used in Survey of India map.
2. Suitability of symbols in SOI sheets and interpret the physical and cultural features found in them.
3. Develop knowledge to establish a weather station, study and interpret the weather report of India.
4. Learn the mapping techniques which are used to represent the socio economic data
5. Draw the distribution maps for the given data.

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	2	3	2	2	1	2	2	1	1	1	1	2.86
CO2	2	1	2	2	2	2	1	2	1	2	1	1	2.71
CO3	2	2	2	2	2	1	2	1	2	2	1	2	3.00
CO4	--	2	2	2	1	--	1	2	1	2	2	2	2.43
CO5	1	2	1	1	2	2	2	2	2	1	2	2	2.86
Overall mean score for COs													2.77

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.77 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. P. SUNDARARAJ

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5 **COURSE CODE: U21GE4C6**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – IV SEMESTER – CORE COURSE- VI

(For the candidates admitted from the year 2021-22 onwards)

GEOGRAPHY OF ASIA

COURSE OBJECTIVES :

1. To acquire knowledge about the distribution of relief, climate and drainage of Asia.
2. To assess the resources of soil, agriculture, minerals and industries of Asia.
3. To understanding the distribution of population and modes of transport network of Asia.

UNIT - I	Geographic Location and Extent - Locational significance – Physical divisions; Climate: Seasonal pattern of monsoons - Climatic regions.
UNIT - II	Drainage System –Soil – Natural vegetation - types and distribution.
UNIT - III	Agriculture: Farming types - Major crops: Rice, Wheat, Cotton, Jute, Tea, Coffee and Rubber - Recent developments in Agriculture; Fishing - Inland and Marine.
UNIT - IV	Mineral Resources - Distribution and Production of Iron ore, Manganese, Copper, Tin, Gold, Gypsum and Mica; Industries: Locational Factors - Textiles - Sugar - Iron and Steel.
UNIT - V	Population: Controlling Factors - growth- distribution and density, Transport: Roadways - Railways- Airways - Waterways.

REFERENCE BOOKS :

1. Richard and Chorley - Introduction to Physical Hydrology () - Methuen & CoLtd.
2. Manning, J.C (1989) Applied Principles of Hydrology, CBS Publishers. NewDelhi.
3. Ragunath, H.M, ground water hydrology,
4. Ranjit Tirtha, (2001), geography of Asia, Rawat Publications, Jaipur.
5. Negai. B.S (1986), the continent of asia, s. chand and co.(Pvt)Ltd, New Delhi

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE OUTCOMES:

Students must be able to:

1. Understand the locational extent, physical features and climate of the Asian continent.
2. Gain knowledge on the drainage system, soil, natural vegetation and their distribution in Asia.
3. Learn the farming types, distribution of major crops and the types and nature of fishing in Asia.
4. Locate and assess the mineral resources and the locational factors of select industries in Asia.
5. Analyse the growth and distribution of population and status of different modes of transport in Asia.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	1	2	3	1	1	2	2	2	3	--	--	2.71
CO2	1	2	1	--	2	--	--	2	--	1	1	1	1.57
CO3	2	1	--	1	1	1	--	2	1	3	--	2	2.00
CO4	2	2	1	--	--	2	1	2	1	1	3	1	2.29
CO5	1	--	--	1	2	1	2	2	--	1	--	--	1.43
Overall mean score for COs													2.00

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.00 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: M. BALAMURGAN

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE4S1**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – IV SEMESTER – SKILL BASED ELECTIVE - I

(For the candidates admitted from the year 2021-22 onwards)

GEOGRAPHY OF TOURISM

COURSE OBJECTIVES :

1. To be able to analyze the nature and types of tourism.
2. To understand the factors influencing tourism.
3. To studying the major tourist centers of Tamil Nadu and India and the role of TTDC and ITDC in tourism development.

UNIT - I	Scope and Content - Significance - Growth of Tourism: Classification of tourist travellers:Merchants - Explorers - Pilgrims - factors controlling tourism - types of tourism.
UNIT - II	Travel Agency and Tourist Documents - Functions and role of travel agencies; Passport - Visa and its types; Travellers Cheque - Credit and debit Cards; Role of Accommodation - Hospitality and Transport in tourism development.
UNIT - III	Elements of Tourism - Attraction, accessibility and amenities - classification of tourist spots - accommodation - primary and supplementary accommodation - Hotels, Inns and Motels.
UNIT - IV	Development of Tourism in India - Govt. Policy - Role of ITDC in Tourism promotion; Development of Tourism in Tamil Nadu - Role of TTDC in promotion of tourism in the state.
UNIT - V	A General Study on Tourist Centers in India and Tamil Nadu: Mumbai, Chennai, Bangalore, Thiruvanthapuram, Madurai, Ooty, Yercaud and Kodaikanal.

REFERENCE BOOKS :

1. Khan, M.A, (2005) introduction to tourism, Anmol Publication Pvt. Ltd, New Delhi.
2. Sangar, J.P., (2006) Tourism Management, Anmol Publication Pvt. Ltd, New Delhi.
3. Sharma, S.P., (2007) Tourism and Environment, Concepts, Principles and Approaches, Kanishka Publishes Distribution, New Delhi.

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE OUTCOMES:

Students must be able to:

1. Become familiar with the nature of tourism, its types and the controlling factors of tourism
2. Equip them to establish and run a travel agency and act as travel agent.
3. Aware of the elements which support tourism
4. Know the development of tourism in Tamil Nadu and India and the role of ITDC and TTDC in tourism promotions.
5. Know the location, nature and importance of select tourist centres in the country.

Nature of Course			
Knowledge and skill	✓	Employability oriented	✓
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	2	1	2	1	1	2	2	1	1	2	1	2.57
CO2	--	--	3	2	2	--	1	1	1	2	2	2	2.29
CO3	1	1	3	1	2	1	1	1	2	1	2	2	2.57
CO4	1	1	2	2	2	2	1	1	2	1	1	2	2.57
CO5	1	1	2	3	2	1	1	1	1	2	2	2	2.71
Overall mean score for COs													2.54

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.54 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. P. SUNDARARAJ

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5 **COURSE CODE: U21GE5C7**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – V SEMESTER – CORE COURSE - VII

(For the candidates admitted from the year 2021-22 onwards)

HUMAN GEOGRAPHY

COURSE OBJECTIVES :

1. To understand the concepts of schools of Human Geography.
2. To be able to recognize the human races and their distribution.
3. To studying the settlement pattern, population distribution, human migration and impacts of man On Environment.

UNIT - I	Human Geography - Nature and Scope; Historical perspectives, Schools of Human Geography: Determinism - Possibilism - Neo - Determinism - Social Determinism.
UNIT - II	World Human Races and Distribution; major tribes: Eskimos, pygmies. Bushman, Gonds and Irulas. Mosaic of Culture; Classification and spatial distribution of languages – Religion.
UNIT - III	World Population: Growth - distribution and density - Controlling factors - Migration: Push and Pull factors - Types - Effects of Migration.
UNIT - IV	World economic activities: world pattern of primary, secondary and tertiary activities - special economic zones - free trade zone - export processing zone - industrial park - free port zones - bonded logistics parts.
UNIT - V	Impact of man on Environment: Deforestation - Soil Erosion - Urbanization -Climate change - Global warming - Ozone depletion - Acid rain.

REFERENCE BOOKS :

1. Peripillous A.V. Human Geography, Longman Group Limited, 1997.
2. Chandra, R.C: A Geography of Population Concepts., determine and Patterns.
3. Singh., R.L. Readings in Rural Settlements and Land Use, Hutchinson, London, 1970.
4. Meyer, H.M and Kohn, C.F. Readings in Urban Geography Chicago Printing Press,Chicago.

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE OUTCOMES:

Students must be able to:

1. Develop the historical perspectives and understand the concept of schools of human geography
2. Acquire knowledge on the human races, nature, distribution and their culture.
3. Possess knowledge on the distribution of population, migration, its types, controlling factors and causes and effects.
4. Classify the economic activities and learn the concept of special economic zones of different categories.
5. Analyse the impact of man on environment associated with soil erosion, urbanisation, global warming, ozone depletion and acid rain.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	**Programme Outcomes(POs)**					**Programme Specific Outcome (PSOs)**							**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**	
CO1	**1**	**2**	**1**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**2**	**2.57**
CO2	**2**	**3**	**2**	**1**	**2**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**3.14**
CO3	**1**	**3**	**1**	**2**	**2**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**3.00**
CO4	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**2**	**2**	**2**	**2.29**
CO5	**2**	**2**	**1**	**2**	**2**	**2**	**2**	**3**	**2**	**1**	**2**	**2**	**3.29**
Overall mean score for COs													**2.86**

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.86 (Excellent Relationship)

Mapping Scale

Scale	**1**	**2**	**3**	**4**	**5**	**6**
Relation	**0 – 0.5**	**0.5 – 1.0**	**1.0 – 1.5**	**1.5 – 2.0**	**2.0 – 2.5**	**2.5 – 3.0**
Quality	**Very Poor**	**Poor**	**Moderate**	**High**	**Very High**	**Excellent**

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. T. KAVITHA

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE5C8**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – V SEMESTER – CORE COURSE - VIII

(For the candidates admitted from the year 2021-22 onwards)

CARTOGRAPHY

COURSE OBJECTIVES :

1. To learning the techniques of map making, types and uses of maps.
2. To studying the techniques of map design and layout.
3. To understanding the system of geographic co-ordinates, directions on maps and calculation of local time.
4. To understanding the concept of computer assisted cartography.

UNIT - I	Meaning and Nature of Cartography - Maps and its types - Uses - Methods of representation of map scales.
UNIT - II	Map design and layout - lettering and toponomy - Tools and techniques for map drawing - map reproduction processes.
UNIT - III	Map Symbolization: Point, Line and Area Symbols - Quantitative and Qualitative representation. Map compilation and generalization.
UNIT - IV	Geographic Co-ordinates: Latitudes - Longitudes - International Date Line; Direction: True, Magnetic and Grid North.
UNIT - V	Map projections - Fundamentals - Classification - Major types of map projections - Characteristics and uses - Choice of projection - Recent developments in cartography - Computer cartography - Digital cartography - 3D cartography.

REFERENCE BOOKS:

1. Misra R.P. and A.P.Ramesh (2000) Fundamentals of Cartography, Concept Publishing Company, New Delhi.
2. Robinson, Elements of Cartography, John Willy and Sons, New Delhi.
3. Keates J. S (1973) Cartographic Design and Production, Publisher Longman Inc.London
4. Raiz , (1962) Principles of Cartography - Publisher Mc. Graw Hill - London.
5. Sethurakkai, S, (2005) Pvipadaviyal: an Introduction, Shanmugam Publishing House,Madurai.

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE OUTCOMES:

Students must be able to:

1. Learn the concept of maps, able to classify the map and familiar with the different methods of representation of maps.
2. Capable of drawing and designing maps and familiar with the different methods used for map reproduction.
3. Familiar with the types and suitability of cartographic symbols and able to compile and generalize maps.
4. Understand the geographic coordinate system, time calculation and the north direction of different kind.
5. Learn the suitability of map projection for drawing different regions of earth and possess knowledge on the use of computer in map making.

Nature of Course			
Knowledge and skill	✓	Employability oriented	✓
Skill oriented	✓	Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	1	3	2	2	2	2	1	1	1	1	2	2	2.86
CO2	1	2	2	2	2	1	1	2	2	2	2	2	3.00
CO3	2	1	2	3	2	1	1	1	1	1	2	2	2.71
CO4	1	2	2	1	1	1	1	1	1	1	1	2	2.14
CO5	1	1	2	--	--	1	1	1	1	1	2	2	1.86
Overall mean score for COs													2.51

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.51 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: M. BALAMURGAN

CHAIRMAN - BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 3 **COURSE CODE: U21GE5C9**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – V SEMESTER – CORE COURSE - IX

(For the candidates admitted from the year 2021-22 onwards)

GEOGRAPHY OF TAMIL NADU

COURSE OBJECTIVES :

1. To familiarize the students with the natural settings, climate and drainage of Tamil Nadu.
2. To assess the distribution of soil, natural vegetation, water, agriculture, minerals and industrial resources of Tamil Nadu.
3. To know about the population distribution, trade and transport of Tamil Nadu.

UNIT - I	Geographical Location – Administrative divisions – Major relief features – Major Rivers – Climate - Controlling factors – Seasons and characteristics.
UNIT - II	Soils and Natural Vegetation: Types and distribution; Sources of irrigation: Canals, Tanks and Wells.
UNIT - III	**Irrigation –** types and distribution**:** Agriculture - Cropping seasons -Major crops: Rice, Millets, Pulses, Groundnut, Cotton, Sugarcane, Tea, Coffee and Rubber, Livestock: cattle, sheep dairying and fisheries.
UNIT - IV	Mineral Resources: Iron ore, Bauxite and Coal. Power Resources: Thermal, Hydel, Atomic, Solar and Wind; Industries: Cotton, Sugarcane, Iron & Steel and Automobiles.
UNIT - V	Population – Distribution and Density; Transport: Roadways, Railways, Airways and Water ways. Trade – Inland and Foreign.

REFERENCE BOOKS :

1. V. Kumaraswamy, (2003) Geography of Tamil Nadu, Sakthi Publishing House, Kumbakonam.
2. Tiwari and Ramesh (1985), Basic Resource Atlas of Tamil Nadu.

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE COUTCOMES:

Students must be able to:

1. Understand the locational extent, major relief features, the drainage system and climatic characteristics of Tamil Nadu.
2. Gain knowledge on the types, characteristics and distribution of soil, natural vegetation and irrigational sources.
3. Analyse the characteristics of agriculture and cropping seasons and the status of livestock and fisheries of Tamil Nadu.
4. Assess the mineral wealth, power resources and the development of select industries in Tamil Nadu.
5. Gain knowledge on the distribution of population, status of different modes of transport and the volume of trade of Tamil Nadu.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	1	1	1	3	2	1	2	2	1	2	--	2	2.57
CO2	2	2	1	2	1	2	2	2	--	1	1	1	2.43
CO3	1	2	--	3	2	2	2	2	1	3	2	2	3.14
CO4	2	2	1	2	2	2	1	1	2	3	2	--	2.86
CO5	2	1	--	3	2	1	2	1	1	3	2	2	2.86
Overall mean score for COs													2.77

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.77 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. P. SUNDARARAJ

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4	COURSE CODE: U21GE5E1

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – V SEMESTER – ELECTIVE COURSE - I

(For the candidates admitted from the year 2021-22 onwards)

BASICS OF REMOTE SENSING AND GIS

COURSE OBJECTIVES :

1. To understanding the working principles of aerial and satellite remote sensing.
2. To be able to analyse the applications of remote sensing in geography.
3. To learn the basic applications of GIS AND GPS.

UNIT - I	**Remote Sensing**: Meaning - Development – Types - Electromagnetic Energy– Electromagnetic Spectrum – Energy Interactions – Ideal Remote Sensing System.
UNIT - II	**Fundamentals of Aerial Remote Sensing:** Components of Aerial Camera - Types of Aerial Photographs - Stereoscopic Vision - Marginal Information of Aerial Photographs - Elements of Air Photo Interpretation.
UNIT - III	**Fundamentals of Satellite Remote Sensing:** Types of Satellites: Geo- Stationary and Sun-Synchronous Satellites: Sensors – Platforms – satellite image - Resolution: Spatial, Spectral, Radiometric and temporal.
UNIT - IV	**Application of Remote Sensing in Geography**: Geomorphology - Water Resources, Forest, Land Use and Agriculture.
UNIT - V	**GIS:** Definition – Development – Components; Data Structure: Raster and Vector – Output of GIS maps - GPS: Definition – developments – significance - Applications of GIS and GPS.

REFERENCE BOOKS :

1. Curran.P.J. Principles of Remote Sensing, English Language Book Society Longmans(1985).
2. Sabins Jr. Remote Sensisng-Principles of Interpretations, Freeman & Co, Sanfrancico(1978).
3. Lilles and & Kiefer, Remote Sensing and Image Interpretation, John Wiley & Sons,New York (1979).

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COURSE OUTCOMES:

Students must be able to:

1. Understand the meaning of remote sensing, types, source of energy for remote sensing and energy interaction
2. Identify the features in aerial photo and able to interpret it with the help of stereoscope.
3. Acquire knowledge on types of satellites, sensors, platforms and resolution of different kinds of satellite images.
4. Apply the remote sensing knowledge in different fields of geography.
5. Learn the basics of GIS, GPS and their components in geography.

Nature of Course			
Knowledge and skill	✓	Employability oriented	✓
Skill oriented	✓	Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	2	2	1	2	1	1	2	1	2	2	2	2.86
CO2	2	1	2	2	1	1	1	1	1	1	1	2	2.29
CO3	2	2	2	2	2	1	1	2	1	2	2	2	3.00
CO4	2	2	2	2	2	2	2	2	2	2	2	2	3.43
CO5	2	2	2	2	2	2	2	2	2	2	2	2	3.43
Overall mean score for COs													3.00

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 3.00 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: S. MOORTHY

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE5ES2**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – V SEMESTER – SKILL BASED ELECTIVE - II

(For the candidates admitted from the year 2021-22 onwards)

WORLD REGIONAL GEOGRAPHY

COURSE OBJECTIVES :

1. To study the concepts and different types of regions.
2. To understand the geographical characteristics of different regions.

UNIT - I	Definition and Concept - Systematic and Regional Geography - Types of Region (Formal and Functional): Equatorial Region - High Land and Low Land Regions - Location - Climate - Natural Vegetation - Human and Animal Life.
UNIT - II	Tropical regions: Monsoon region - Tropical grass land - Tropical desert - Location - Climate - Natural vegetation - Human and animal Life.
UNIT - III	Warm Temperate Regions: Mediterranean, Temperate Grasslands, China Type - Location - Climate - Natural Vegetation - Human and Animal Life.
UNIT - IV	Cool Temperate Regions: British type or Marine West Coasts, Siberian Type and Laurentian type - Location - Climate - Natural Vegetation - Human and Animal Life.
UNIT - V	Polar Regions: High Land or Ice Cap Type, Lowland or Tundra Type - Location - Climate - Natural Vegetation - Human and Animal Life.

REFERENCE BOOKS :

1. Oliver H. Heintzelman, Richard M. Highsmity J.R. (1965) - World Regional Geography - Printice Hall of India (P) Ltd., New Delhi.
2. Roger Minshull (1967) Regional Geography: Theory and Practice, Hutchinson University Library, London.
3. Cole, J. (1996), A Geography of the World's Major Regions, Routledge, London,
4. Deblij, H.J. (1994) Geography : Regions and Concepts, John Wiley, New York,
5. Darshan singh manku (1998), A Regional Geography of the world, kalyani publishers,New Delhi.
6. Jackson, R.H. & Hudman. L.E. (1991) World Regional Geography : Issues for Today,John.

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COURSE OUTCOMES:

Students must be able to:

1. Differentiate regional and systematic geography, know the meaning for regions and understand physical environment, human and animal life of equatorial region.
2. Gain knowledge on the different divisions of tropical region and the human and animal life of the respective division.
3. Understand the physical, human and animal life of the different divisions of the warm temperate region.
4. Analyse the relief, climate, natural vegetation, human and animal life of the different divisions of cool temperate regions.
5. Explain the causes of harsh climate in the polar region and the nature of vegetation, population and animals.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	2	1	1	2	2	2	2	1	2	2	2	3.00
CO2	2	2	--	2	2	1	1	2	--	2	2	2	2.57
CO3	1	--	1	2	2	--	2	2	1	2	--	1	2.00
CO4	2	2	--	2	2	1	2	2	1	1	1	2	2.57
CO5	2	2	1	--	1	--	1	2	1	--	2	1	1.86
Overall mean score for COs													2.40

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.40 (Very High Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: V. TAMILARASAN

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE5S3**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – V SEMESTER – SKILL BASED ELECTIVE - III

(For the candidates admitted from the year 2021-22 onwards)

DISASTER STUDIES

COURSE OBJECTIVES :

1. To learn the causes and effects of natural and man-made disasters.
2. To understand the methods and importance of disaster management.
3. To familiarize the major hazards in India.

UNIT - I	Disaster-Definition - Scope and Content- Interdisciplinary Nature of Disaster Studies.
UNIT - II	Natural Disasters: Earthquakes - Volcanoes - Landslide - Tsunami - Cyclone - Flood - Drought – Causes and effects.
UNIT - III	Man-Made Disasters: Terrorism, Fire accidents, Explosions - Road Accidents - Stampede - Gas and Oil leakages - Cause and effects.
UNIT - IV	Disasters in India: Causes and effects - Distribution - Earthquake - Tsunami - Cyclone.
UNIT - V	Disaster Management: Concept - Disaster preparedness - Mitigation - Rehabilitation measures - NDMA.

REFERENCE BOOKS :

1. S.S.Purohit., O.J .Sharamani andA.K. Agarwal A Text book of Environmental Sciences.
2. P. Chandrasekaran Environmental Pollution (Tamil).
3. Savindra Singh Environmental Geography.
4. V.Anjaneyelu Introduction to Environmental Science.
5. B.K. Sharama, Environmental Problems and Solutions Kaur.

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COURSE OUTCOMES:

Students must be able to:

1. Understand the nature and importance of disaster studies.
2. Analyse the causes and effects of major natural disasters.
3. Gain knowledge on the causes and effects of major man-made disasters.
4. Identify the disaster prone regions of India in respect of earthquake, tsunami and cyclone and assess the possible effects of the same.
5. Learn about the different status of disaster management and the functions of NDMA.

Nature of Course			
Knowledge and skill	✓	Employability oriented	✓
Skill oriented	✓	Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	2	1	2	2	2	2	2	1	2	2	2	3.14
CO2	1	1	1	2	3	2	2	2	1	1	2	2	2.86
CO3	2	2	1	2	2	1	2	2	1	2	1	1	2.71
CO4	2	1	2	2	1	2	2	2	1	2	2	2	3.00
CO5	1	1	1	3	1	2	1	2	1	1	2	1	2.43
Overall mean score for COs													2.83

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.83 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: M. BALAMURGAN

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE5C10P**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – VI SEMESTER – CORE COURSE - X

(For the candidates admitted from the year 2021-22 onwards)

PRACTICAL – III REMOTE SENSING MAPPING AND INTERPRETATION

COURSE OBJECTIVES :

1. To able to identify the marginal information of Top sheets, aerial photos and satellite images.
2. To learn the methods of interpretation of the said ones.

1. Marginal Information of Aerial Photograph
2. Marginal Information of Satellite Image
3. Stereovision – Test Card
4. Scale Measurement from Aerial Photographs
5. Mapping and Interpretation of Aerial Photographs – Physical Features
6. Mapping and Interpretation of Aerial photographs – Cultural Features
7. Mapping and Interpretation of Aerial photographs – Land use/Land cover
8. Mapping and Interpretation of Satellite Images – Physical Features
9. Mapping and Interpretation of Satellite Images – Cultural Features
10. Mapping and Interpretation of Satellite Images – Land use/Land cover
11. Comparison of Top sheets, Aerial photos and Satellite Images

REFERENCE BOOKS :

1. Dickinson, G,C (1979) Map and Air photographys, Arnold Heinemann, London.
2. Lilles and T.M and R.N.Klefer (1987) - Remote Sensing and Image Interpretations -John Wiley and Sons, New York.
3. Robinson, A.H. Randale, D.S. Morrison, J.L. and P.C. Muchrcke (1984) - Elements of Cartography, John Wiley and Sons, New York.

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COURSE OUTCOMES:

Students must be able to:

1. Understand the symbols and their meanings given in the marginal information of Aerial photos and Satellite images
2. Identify and arrange the objects of aerial photo, test card through stereo vision
3. Find out the scale of aerial photos
4. Map and interpret the aerial photos and satellite images
5. Gain knowledge to compare toposheets, aerial photos and satellite images.

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	3	2	2	2	1	2	2	2	--	2	2	2	3.14
CO2	2	2	2	2	2	2	1	2	2	--	2	1	2.86
CO3	2	--	1	1	1	2	--	2	1	--	1	--	1.57
CO4	2	2	2	2	2	2	2	2	2	2	2	2	3.43
CO5	2	2	2	2	2	2	2	2	2	2	2	2	3.43
Overall mean score for COs													2.89

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.89 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. T. KAVITHA

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5 **COURSE CODE: U21GE6C11P**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – VI SEMESTER – CORE COURSE - XI

(For the candidates admitted from the year 2021-22 onwards)

PRACTICAL – IV – MAP PROJECTION AND SURVEYING

COURSE OBJECTIVES :

1. To learning the methods of construction of different projections.
2. To studying the suitability of different projections for different regions.
3. To learn the methods of surveying by different instruments.

UNIT - I	**Cylindrical and conical projections** **Cylindrical** ➢ Simple Projection ➢ Equal Area Projection ➢ Equi Distance Projection ➢ Orthomorphic Projection ➢ Mercators Projections **Conical Projection** ➢ One Standard ➢ Two Standard ➢ Bonne's ➢ Polyconic ➢ International Projections
UNIT - II	**Zenithal projection** ➢ Equidistant ➢ Equal Area (Polar Cases Only) ➢ Orthographic ➢ Stereographic ➢ Gnomonic
UNIT - III	**Conventional** ➢ Sinusoidal ➢ Mollweide's (Normal Cases Only) ➢ Sinusoidal Interrupted ➢ Mollweide Interrupted
UNIT - IV	**Surveying – Measurement of Area** ➢ Chain ➢ Prismatic Compass ➢ Plane Table ➢ GPS **Measurement of Elevation** ➢ Abney Level ➢ Indian Clinometer

REFERENCE BOOKS :

1. Kellaway George.P. - Map Projections Methuen & Co., London.
2. Steers J.A.-Map Projections, University London Press, London.
3. R.L. Singh-Practical Geography-Kalyani Publishers, New Delhi.
4. Jayachandran.S-Practical Geography.

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE OUTCOMES:

Students must be able to:

1. Know the region of earth which can be mapped with the help of cylindrical projection and map them.
2. Understand the suitable regions for mapping with conical projections
3. Find out the parts of earth which can be mapped with the help of zenithal projection
4. Understand the ways of mapping the whole earth with the help of conventional projection.
5. Survey and measure height of objects with the help of different instruments.

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	1	2	1	1	2	1	1	1	2	2	2	2.57
CO2	1	2	1	2	1	1	2	2	1	2	2	1	2.57
CO3	2	1	2	1	2	2	2	1	2	1	2	2	2.86
CO4	1	2	1	2	2	1	2	2	1	2	2	1	2.71
CO5	2	2	1	1	1	2	1	1	2	1	2	2	2.57
Overall mean score for COs													2.66

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.66 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. P. SUNDARAJ

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5	COURSE CODE: U21GE6C12

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – VI SEMESTER – CORE COURSE - XII

(For the candidates admitted from the year 2021-22 onwards)

GEOGRAPHY OF INDIA

COURSE OBJECTIVES :

1. To acquire knowledge on the relief, climate and drainage of India.
2. To be able to assess the soil, forest, agriculture, minerals and industrial resources of India.
3. To study the population distribution, the nature of trade and different modes of transport of India.

UNIT - I	India: Geographical location and extent - India as a Sub-Continent - Major Physical divisions - Drainage Systems, major Multipurpose river valley projects, Climate: Controlling factors – seasons.
UNIT - II	Soil: Types and Distribution – Soil erosion and conservation - Natural Vegetation: Forest types and distribution – Forest products and uses.
UNIT - III	Agriculture: Problems - Cropping seasons - Farming types - Green Revolution -Food crops - Rice, Wheat; Commercial crops: Sugarcane, Cotton, Jute; Plantation crops: Tea, Coffee and Rubber.
UNIT - IV	Mineral resources - Iron ore, Manganese, Bauxite, Coal and Oil. Power resources - Hydel, Thermal and Atomic; Industries - Cotton textiles, Iron and Steel, Shipbuilding and Automobiles.
UNIT - V	Population - Distribution and Density. Transport: Roadways - Railways - Waterways - Air ways - Trade: Products items and Volume.

REFERENCE BOOKS :

1. Sign, Gopal - Geography of India, At marani, New Delhi 1970.
2. Aranachalam.B Economic Geography of India-Bombay.
3. Sharma-Economic and Commercial and Geography of India.
4. Singh. R.L(ed) India a Regional Geography -1971, NGSI, Varanasi – 5.

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

COURSE OUTCOMES:

Students must be able to:

1. Understand the locational extent, major relief features, the drainage system and climatic characteristics of India.
2. Gain knowledge on the types, characteristics and distribution of soil and natural vegetation in India.
3. Analyse the characteristics of agriculture, cropping seasons and the distribution of major crops.
4. Assess the mineral wealth, power resources and the development of select industries in India.
5. Evaluate the human resource, status of transport and the volume of international trade of India.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	1	1	3	2	2	2	2	1	2	2	2	3.14
CO2	2	1	1	3	1	1	2	2	1	3	1	2	2.86
CO3	2	2	1	3	2	1	1	2	1	3	1	2	3.00
CO4	1	1	1	3	1	2	1	1	1	3	2	2	2.71
CO5	2	1	2	3	1	2	2	2	1	3	1	2	3.14
Overall mean score for COs													2.97

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.97 (Excellent Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: Dr. P. SUNDARARAJ

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5 **COURSE CODE: U21GE6C13**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – VI SEMESTER – CORE COURSE - XIII

(For the candidates admitted from the year 2021-22 onwards)

GEOGRAPHY OF RESOURCES

COURSE OBJECTIVES :

1. To be able to recognize the types of resources.
2. To studying the wealth of agricultural, livestock, mineral and power resources..
3. To be able to analyze the different modes of transport of the world.
4. To understand the role of major trading organizations of the world.

UNIT - I	Resources: Meaning - Nature and Significance - Classification and Types - Need For Conservation and Sustainable Development.
UNIT - II	Water Resources - Importance - Surface and Ground Water - Continent wise distribution and utilization of water resources - Problems and Issues**.**
UNIT - III	Biotic Resources - Major forest types and distribution - Livestock - Fisheries – Major fishing grounds of the World.
UNIT - IV	Mineral Resources - Classification and distribution of major minerals: Iron and Copper - Energy resources - Coal, Petroleum, Natutal gas, Hydro electric and Atomic power - Major industrial zones of the World.
UNIT - V	Transportation and Trade - Different modes of transport - trade: types factors affecting trade - multilateral and bilateral - Agreements of trade - WTO - GATT- ITO - WCO - UNCTAD.

REFERENCE BOOKS :

1. Alexander, J.W. (1964). Economic Geography. John Wiley & Sons Inc, New York.
2. Leong, C.H. and Morgan, G.C. (1982). Economic and Human Geography (2nd Edition). Oxford University Press, Kuala Lumpur.
3. Bengtson, N.A. and Royen, W.V. (1935). Fundamentals of Economic Geography. Prentice Hall Inc, New York.
4. Thomas, R.S. (1962). The Geography of Economic Activities. McGraw Hill, NewYork.
5. Mather, A.S. and Chapman, K. (1995). Environmental Resources. John Wiley and Sons, New York.

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COURSE OUTCOMES:

Students must be able to:

1. Assess the significance of resources and identify the resources of different types.
2. Evaluate the major resources of the earth and analyse the problems associated with the utilization of water resources.
3. Locate the major regions of forest, livestock and fishing grounds and assess their utility.
4. Evaluate the mineral wealth of the world and gain knowledge on the major industrial zones of the world.
5. Learn about the nature, merits and demerits of major means of transport, types of trade and functions of trading organization.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	1	1	1	2	1	1	2	1	1	2	2	2	2.43
CO2	1	1	1	2	1	1	1	2	1	2	1	2	2.29
CO3	2	2	--	2	2	--	1	2	2	2	1	2	2.57
CO4	1	1	2	1	1	1	2	1	1	2	2	2	2.43
CO5	1	2	2	2	1	--	1	2	1	2	1	2	2.43
Overall mean score for COs													2.43

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.43 (Very High Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: V. TAMILARASAN

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 5 **COURSE CODE: U21GE6E2**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – VI SEMESTER – ELECTIVE COURSE - II

(For the candidates admitted from the year 2021-22 onwards)

BIO GEOGRAPGHY

COURSE OBJECTIVES :

1. To be able to analyse the distribution of flora and fauna in relation to different factors.
2. To study the causes and effects of extinction of plants and animals.
3. To acquire knowledge on the nature of different biomes and ecological regions of India.

UNIT - I	Bio geography: Definition, Scope and significance- Evolution of life on the Earth: Origin of Fauna and Flora - Plants and animal evolution throughout the geological times - distribution of plant life on the earth.
UNIT - II	Basic Ecological Principles - Bio- energy cycle in the terrestrial eco-system - Trophic level and food chain; Concepts of biome, Eco-tone and community.
UNIT - III	Bio- Diversity: Problems of extinction of plant and animal life - Habitat decay- Prevention and conservation methods of fauna and flora - Process of desertification and its consequence.
UNIT - IV	World Major Biomes: Equatorial biome - Tropical forest - Temperate grass land - Tropical desert and Tropical grasslands.
UNIT - V	Study of Ecological regions of Himalayas and Western Ghats - Problems,conservation and management measures.

REFERENCE BOOKS :

1. Robionson, H. Bio geography: ELBS: Mc Donald and Evana, London 1982.
2. Allce W.C and Sehmidt, K.P. Ecological Animal Geography
3. Barry C: Bio geography-An Ecological and Evolutionary Approach, Cod Bloack Well,Oxford, 1977.
4. M.E. Hardy the Geography of Plants.
5. Peter A. Furley and Waleter W. Newey Geography of the Biosphere.

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COURSE OUTCOMES:

Students must be able to:

1. Trace the origin of flora and fauna and synthesise their evolutionary stages
2. Understand the cyclic nature of bio energy
3. Analyse the problems caused by extinction of plants and animals and learn the conservation methods
4. Gain knowledge on the location and characteristics of the world major biomes.
5. Perceive the nature of ecological regions, its identification and the conservation measures adopted to safeguard the ecosystem over Himalayas and Western Ghats.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	1	1	1	1	1	2	2	1	2	2	2	2.57
CO2	1	2	1	1	1	2	2	1	1	1	1	2	2.29
CO3	1	1	--	2	--	1	2	2	1	2	2	1	2.14
CO4	2	1	1	2	1	1	2	1	1	2	2	2	2.57
CO5	1	2	--	2	2	1	2	2	--	2	2	1	2.43
Overall mean score for COs													2.40

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.40 (Very High Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: V. TAMILARASAN

CHAIRMAN – BOS **CONTROLLER OF EXAMINATIONS**

CREDIT: 4 **COURSE CODE: U21GE6E3**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR - 639005

B.SC., GEOGRAPHY – VI SEMESTER – ELECTIVE COURSE - III

(For the candidates admitted from the year 2021-22 onwards)

SETTLEMENT GEOGRAPHY

COURSE OBJECTIVES :

1. To study the fundamental concepts of settlement geography.
2. To understand the rural and urban settlements and its characteristics.
3. To acquire knowledge on land use models and urban hierarchy.

UNIT - I	Geography of Settlements: meaning, nature and scope - Settlement: types. Fundamental concepts in Settlement Geography.
UNIT - II	Rural settlements: Concept, characteristics and factors - types and patterns. Regional characteristics - Morphology - Rural problem and planning.
UNIT - III	Urban settlements: Concept and characteristics. Urbanization: Factors - urbanization in India and World - Functional classification of urban centers.
UNIT - IV	CBD: Functions and characteristics - Urban morphology: Classical models - Burgess, Homer Hoyt, Harris and Ullman - Rural–Urban Fringe.
UNIT - V	Hierarchy of urban centers - Rank-size rule - Central place theory - Urban Problems - Slums - Urban Planning.

REFERENCE BOOKS :

1. Bala, Raj (1986), Urbanisation in India, Rawat Publishers, Jaipur.
2. Kundu, A (1992), Urban Development and Urban Research in India, Khanna Publication,New Delhi.
3. Majid Hussain (1999), Human Geography, Rawat Publications, Jaipur.
4. Nath V. (2007), Urbanisation, Urban Development and Metropolitan Cities in India,Concept Publishing Co. New Delhi.
5. Pacione, Michael (2001), Urban Geography - A Global Perspective, Routedge, London.
6. Perpillou, (1967). Human Geography, A.V.H.G. Longman, London.
7. R. Ramachandran (1989), Urbanization and Urban Systems in India, Oxford UniversityPress, Delhi,
8. R.B. Mandal (2009), Urban Geography: A Text Book; Concept Publishing Co., NewDelhi.
9. Siddhartha K, (2013), Cities, Urbanisation and Urban Systems,kisalaya publication Pvt.Ltd New Delhi.
10. Singh, R. L., (1994). Geography of Settlements, Rawat Publications, New Delhi.
11. Vasant Kumar Bawa (1985), Indian Metropolis, Urbanization Planning and Management,Inter – India Publication, New Delhi.

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COURSE OUTCOMES:

Students must be able to:

1. Understand the meaning, concept and nature of settlement geography
2. Analyse the types and characteristics of rural settlements
3. Synthesize the nature of urban settlements, its types and functional basis of classification.
4. Apply the urban land use models to different cities and compare the models with cities.
5. Place the cities based on their hierarchy and analyse the urban problems.

Nature of Course			
Knowledge and skill	✓	Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcome (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	1	1	2	1	2	1	2	2	1	2	2	2	2.71
CO2	2	2	1	2	2	1	2	1	1	2	2	2	2.86
CO3	1	1	1	2	--	--	1	--	1	2	--	1	1.43
CO4	1	--	1	2	2	2	2	1	1	2	2	2	2.57
CO5	2	2	2	2	2	2	2	--	2	1	2	1	2.86
Overall mean score for COs													2.49

(Values Reference – 3 –high, 2 – Medium, 1 – Low, 0- No)

Result: The matrix score of this course is 2.49 (Very High Relationship)

Mapping Scale

Scale	1	2	3	4	5	6
Relation	0 – 0.5	0.5 – 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0
Quality	Very Poor	Poor	Moderate	High	Very High	Excellent

Value Scaling

Mean Score of Cos= $\frac{\text{Total of Values}}{\text{Total No.of POs \& POs}}$	**Mean Overall Score of Cos=** $\frac{\text{Total of Mean Scores}}{\text{Total No.of COs}}$

COURSE DESIGNER: S. MOORTHY

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NO. OF CREDITS: 2	SUBJECT CODE: U21GE3N1

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR – 639005
B.A. ENGLISH - III SEMESTER - NON CORE ELECTIVE - I
(For the candidates admitted from the year 2021 - 22 onwards)

BASICS OF DISASTER

COURSE OBJECTIVES:

1. To understand the concept, nature and manmade disasters.
2. To learn the causes and effects of global warming and the warning system for ocean related natural disasters.

UNIT - I	Disaster: Concept, Types, Significance and Scope.
UNIT - II	Natural Disasters: Volcanoes, Earthquake, Tsunami, Landslide, Flood, Drought and Cyclones - Causes and Consequences.
UNIT - III	Manmade Disasters: Terrorism - Fire - Accidents - Explosion - Stampede: Causes and effects.
UNIT - IV	Climate Change: Vulnerability - Global Warming and Green House Effect, Sea Level Rise and its impact on coastal areas.
UNIT - V	Warning System for Natural Hazards - Cyclone, Tsunami and El-Nino.

Reference Books

1. Savindra Sing (1991), Environmental Geography, Prayag Pustak Bhavan, Allahabad.
2. Das, R.R. (2006), Environmental Studies, Pragon International Publishers, New Delhi.
3. Singh, R.P. (2006), Natural Hazards and Disaster Management, Rawat Publications, Jaipur.
4. Brig Khanna. B.K. & Nina Khanna (2011), Disasters, New India Publishing company, New Delhi.
5. Susan.L. & Cutter (1999), Environmental Ricks and Hazards, Prentice Hall of India, New Delhi.
6. Saxena. H.M. (2007), Environmental Geography, Rawat Publications, Jaipur.

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COURSE OUTCOMES:

Students must be able to

1. Understand the concept and types of disasters
2. Analyse the causes and effects of natural disasters
3. Become familiar with the nature of manmade disasters, its causes and consequences.
4. Learn the causes of global warming and its impacts.
5. Gain knowledge on warning system for ocean related disasters in India.

Nature of Course			
Knowledge and skill		Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcome	**Programme Outcomes (POs)**							**Programme Specific Outcomes (PSOs)**					**Mean Score**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**	
CO1	2	2	1	1	1	2	2	2	1	2	2	2	**2.86**
CO2	1	1	1	2	1	2	1	2	1	1	2	2	**2.43**
CO3	1	2	1	2	2	1	2	1	1	2	1	1	**2.43**
CO4	2	1	1	1	1	2	2	2	1	1	1	1	**2.29**
CO5	1	1	1	1	1	2	1	2	1	1	2	1	**2.14**
Overall mean score for COs													**2.43**

(Values Reference - 3 - high, 2 - Medium, 1 - Low, 0 - No)

Result: The matrix score of this course is 2.49 (Very High Relationship)

Mapping Scale

Scale	1	2	3	4	5
Relation	0 - 0.5	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5
Quality	Very Poor	Poor	Moderate	High	Very High

Value Scaling:

Mean Score of Cos = Total Values / Total No. of PSOs	**Over all mean Score for COs** = Total of mean score / Total of COs

COURSE DESIGNER:

CHAIRMAN - BOS **CONTROLLER OF EXAMINATIONS**

NO. OF CREDITS: 2 **SUBJECT CODE: U21GE4N2**

GOVERNMENT ARTS COLLEGE (AUTONOUMOUS), KARUR – 639005

B.A. ENGLISH - IV SEMESTER - NON CORE ELECTIVE - II

(For the candidates admitted from the year 2021-22 onwards)

DISASTER MANAGEMENT

COURSE OBJECTIVES:

1. To acquire knowledge on the elements on elements of disaster management, the prevention methods and mitigation measures in the event of disasters.
2. To learn about the functions of NDMA and SDMA and the role of GIS and GPS in disaster management.

UNIT - I	Disaster Management: Definition and concept; Elements of disaster management: Planning - Prevention - Response - Recovery; Increasing importance of disaster management.
UNIT - II	Volcanoes - Earthquakes - Tsunami - Landslide - Flood - Drought and Cyclones: Methods and preventive measures.
UNIT - III	Fire Accidents - Road Accidents - Explosion - Stampede: Methods of prevention and mitigation measures.
UNIT - IV	Disaster management organizations and their functions in India: NDMA - SDMA.
UNIT - V	Recent trends in Disaster management: Use of GIS and GPS.

Reference Books

1. Savindra Sing (1991), Environmental Geography, Prayag Pustak Bhavan, Allahabad.
2. Das, R.R. (2006), Environmental Studies, Pragon International Publishers, New Delhi.
3. Damon, P.Copola, (2006) Introduction to International Disaster Management, Butterworth Heinman.
4. Gupta A.K., Niar S.S and Chatterjee S. (2013) Disaster Management and Risk Reduction, Role of Environmental Knowledge, Narosa Publishing House, Delhi.
5. Murthy D.B.N. (2012) Disaster Management, Deep and Deep Publication PVT. Ltd. New Delhi.
6. Modh S (2010) Managing Natural Disasters, Mac Millan Publishers India Ltd.

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COURSE OUTCOMES:

Students must be able to

1. Understand the concept and elements of disaster management.
2. Learn the dos and donts before, during and after the natural disasters.
3. Know the prevention methods and mitigation measures for manmade disasters.
4. Create awareness on disaster management agencies and their functions in India.
5. Gain knowledge on the importance of GIS AND GPS disaster management.

Nature of Course			
Knowledge and skill		Employability oriented	
Skill oriented		Entrepreneurship oriented	

MAPPING

Relationship Matrix for Course Outcomes with programme outcomes and Programme Specific Outcomes

Course Outcome	Programme Outcomes (POs)							Programme Specific Outcomes (PSOs)					Mean Score
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	1	1	2	1	2	1	2	2	1	2	2	2	**2.71**
CO2	2	2	1	2	2	1	2	1	1	2	2	2	**2.86**
CO3	1	1	1	2	--	--	1	--	1	2	--	1	**1.43**
CO4	1	--	1	2	2	2	2	1	1	2	2	2	**2.57**
CO5	2	2	2	2	2	2	2	--	2	1	2	1	**2.86**
Overall mean score for COs													**2.43**

(Values Reference - 3 - high, 2 - Medium, 1 - Low, 0 - No)

Result: The matrix score of this course is 2.49 (Very High Relationship)

Mapping Scale

Scale	1	2	3	4	5
Relation	0 - 0.5	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5
Quality	Very Poor	Poor	Moderate	High	Very High

Value Scaling:

Mean Score of Cos = Total Values / Total No. of PSOs	**Over all mean Score for COs** = Total of mean score / Total of COs

COURSE DESIGNER:

CHAIRMAN - BOS **CONTROLLER OF EXAMINATIONS**