CURRICULUM PLANNING AND IMPLIMENTATION
PAPER - IV (Option–iii): Fundamentals of Agricultural Geography

Class: M.A. Geography
Semester: IVth
Name of Teacher: Prof. J.S. Rana
Availability Timings: 9:00 AM to 3:30 PM
E- mail: jasbir_rana2007@yahoo.com

Objectives:

- To familiarize the students with the basics in agricultural geography, starting from its nature, contents, progress, approaches, determinants etc., to the important concepts like cropping intensity, crop–concentration, crop pattern, crop combinations, diversification, commercialization, agricultural development etc.
- To provide them with the understanding of agricultural regionalization, landuse and land capability classifications as well as classification of agricultural types.

Course Content

The nature, subject matter and progress in Agricultural Geography are learn in this subject. Approaches: (i) commodity, (ii) systematic, (iii) regional. Determinants: (i) physical, (ii) economic, (iii) socio–cultural.Selected agricultural concepts and their measurement – (a) intensity of cropping, (b) degree of commercialization, (c) diversification and specialization, (d) efficiency and productivity.Land–use survey and classification (British and Indian) are also discussed in this paper. Land capability classification (U.S. and Britain) also explained in this. A critical evaluation of the classification of world agriculture with special reference to Whittlesey is also discussed. New perspectives in Agriculture are also learned.

Detailed Course Contents: Available at www.gndu.ac.in

What will be the teaching methods:

- Lectures: Six per week.
- Student Seminars: two per week.
- Assignments: The students will be asked to read the textbook in advance and write articles on given topics.
- PowerPoint presentations.
- Participatory and Experiential Learning.
- Quiz.

Program Learning Outcomes:
(Knowledge and Understanding, Intellectual Skills, Practical skills, Transferable Skills).
Learning Outcomes:

A. Knowledge and understanding:

- Choose an approved book from the resource list or another book approved by the teacher.

  While reading the book the students should keep in mind the theme

- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

B. Intellectual (Cognitive/Analytical) Skills:

- Use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- Relate current events to the physical and human characteristics of places and regions
- Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- Show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments.

C. Practical Skills

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	Minimum Score Required (to Qualify for the Next Exam/Class)	Schedule
Continuous Internal Evaluation (CIE)		
1. Class Tests (Unit wise)	40%	After Each Unit
		Each Week
2. Student Seminars	40%	Last Week of February
3. In House Exams	40%	Last week of April onwards

Teaching Outline:

Unit	Teaching Dates
I	**11 January to 6 February**
II	**9 February to 13 March**
III	**19 March to 13 April**
IV	**16 April to 30 April**
Revision	**Onwards 1 May**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75 per cent attendance of total lectures delivered, failing which they will be detained from appearing in university exams.

Text Books:

1. Hussain, M., Systematic Agricultural Geography, Rawat Publications, Jaipur, 1996.
2. Singh, J. and Dhillon, S.S., Agricultural Geography, Tata McGraw Hill, New Delhi, 1984.

References

1. Alexander, J.W., Economic Geography, Prentice Hall, N.J., 1968.
2. Gosal, G.S. and Krishan, Gopal, Regional Disparities in Levels of Socio–Economic Development in Punjab, Vishal Publications, Kurukshetra, 1984.
3. Grigg, D.B., The Agricultural Systems of the World: An Evolutionary Approach, Cambridge University Press, Cambridge, 1978.
4. Hussain, M., Agricultural Geography, Inter India Publications, Delhi, 1979.
5. Morgan, B.W. and Munton, J.C., Agricultural Geography, Methuen, London, 1971.
6. Shafi, M., Agricultural Productivity and Regional Imbalances, Concept, New Delhi, 1984.
7. Singh, Jasbir, Dynamics of Agricultural Change, Oxford, New Delhi, 1990.
8. Tarrant, J.R., Agricultural Geography, Davis and Charles, Newton Abbot, 1974.

9. Whealler, K.E., Ladley, A.M. and Leong, F.C., Studies in Agricultural Geography, Bland Educational, London, 1970.

CURRICULUM PLANNING AND IMPLIMENTATION
PAPER - III: FUNDAMENTALS OF REMOTE SENSING (Theory and Practical)

Class: M.A. Geography
Semester: IVth
Name of Teacher: Prof. J.S. Rana
Availability Timings: 9:00 AM to 3:30 PM
E- mail: jasbir_rana2007@yahoo.com

Objectives:
To expose the students with one of the most modern methods of data collection, using aerial photographs and satellite-based imageries.
To develop the skill of interpretation and map making using remote sensing.
To introduce the students about the application of this new technology in management and planning of resources.

Course Content
This Paper Discussed what is remote sensing and historical development, its types and sensors used, electromagnetic energy, geographical uses of remote sensing data. In this we also learn about types of aerial-photographs and their applications, element of object identification, image interpretation techniques, photo mosaics. We also learn about Simple Geometry of aerial photos; measurement of scale, heights and slope from vertical aerial photos. Identification and mapping of elements of natural and cultural landscape including topography, drainage, surficial material, vegetation, settlements, transport networks, land use and field pattern also discussed in this paper. The subject also provides the information of Space borne RS, RS Sensors: Scanning mechanism, Resolution, RS Satellites, such as Landsat, SPOT, IRS, IKONOS, Quickbird, comparison of aerial photographs, satellite imageries with toposheets. Application of remote sensing in management of environmental problems and natural hazards, such as floods, earthquakes, cyclones, forest fire, and droughts etc. also discussed in this paper.

Detailed Course Contents: Available at www.gndu.ac.in

What will be the teaching methods:
- Lectures: Six per week.
- Student Seminars: two per week.
- Assignments: The students will be asked to read the textbook in advance and write articles on given topics.
- PowerPoint presentations.
- Participatory and Experiential Learning.
- Quiz.

Program Learning Outcomes:
(Knowledge and Understanding, Intellectual Skills, Practical skills, Transferable Skills).
Learning Outcomes:

A. Knowledge and understanding:

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

D. Intellectual (Cognitive/Analytical) Skills:

- Use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- Relate current events to the physical and human characteristics of places and regions
- Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- Show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments.

E. Practical Skills

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	Minimum Score Required (to Qualify for the Next Exam/Class)	Schedule
Continuous Internal Evaluation (CIE)		
4. Class Tests (Unit wise)	40%	After Each Unit
		Each Week
5. Student Seminars	40%	Last Week of February
6. In House Exams	40%	Last week of April onwards

Teaching Outline:

Unit	Teaching Dates
I	**11 January to 6 February**
II	**9 February to 13 March**
III	**19 March to 13 April**
IV	**16 April to 30 April**
Revision	**Onwards 1 May**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75 per cent attendance of total lectures delivered, failing which they will be detained from appearing in university exams.

Text Book

- Pardip Kumar Guha (2003) "Remote sensing for the Beginner",East-West Press Pvt. Ltd, New Delhi.

References

- Barret, E. C. and Curtis, L. F., Introduction to Environmental Remote Sensing, Chapman and Hall, London, 1976.
- Colwell, R. N. (ed.), Manual of Remote Sensing, 2nd ed., Falls Church, Va,: American Society of Photogrammetry, 1983.
- Easts, J. E. and Sanger, L. W. (ed.), Remote Sensing Techniques for Environmental Analysis, Hamilton Publishing Co., Santa Barbara, 1974.
- Robinson, Arther, H. et.al , Elements of Cartography, 6th edition, John Willey & Sons, New York, 1995.

- Tomar, M. S. and Maslekar, A. R., Aerial Photographs in Landuse and Forest Surveys, Jugal Kishore and Co., Dehradun, 1974.

CURRICULUM PLANNING AND IMPLIMENTATION
PAPER - I: CLIMATOLOGY

Class: M.A. Geography
Semester: IInd
Name of Teacher: Gitanjali kalia
Availability Timings: 9:00 AM to 3:30 PM
E- mail: gitanjaligeo7@gmail.com

Objectives:
The overall objective of the course is to foster comprehensive understanding of atmospheric phenomena; dynamics and global climates.

Course Content
This Paper discussed the nature and scope of climatology, Composition and structure of the atmosphere and what is insolation: Horizontal and Vertical distribution, heat budget of the Earth. This paper also explains the pressure system, winds and EI Nino-Southern Oscillation (ENSO). This paper also highlights the Atmospheric Moisture, Disturbances and Air Masses. Climatic Change and their causes also learn in this paper. This paper also highlights the climatic region of the world.
Detailed Course Contents: Available at www.gndu.ac.in

What will be the teaching methods:
- Lectures: Six per week.
- Student Seminars: two per week.
- Assignments: The students will be asked to read the textbook in advance and write articles on given topics.
- PowerPoint presentations.
- Participatory and Experiential Learning.
- Quiz.

Program Learning Outcomes:
(Knowledge and Understanding, Intellectual Skills, Practical skills, Transferable Skills).
Learning Outcomes:

A. Knowledge and understanding:

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book

- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

B. Intellectual (Cognitive/Analytical) Skills:

- Use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- Relate current events to the physical and human characteristics of places and regions
- Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- Show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments.

C. Practical Skills

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	Minimum Score Required (to Qualify for the Next Exam/Class)	Schedule
Continuous Internal Evaluation (CIE)		
7. Class Tests (Unit wise)	40%	After Each Unit
		Each Week
8. Student Seminars	40%	Last Week of February
9. In House Exams	40%	Last week of April onwards

Teaching Outline:

Unit	Teaching Dates
I	**11 January to 6 February**
II	**9 February to 13 March**
III	**19 March to 13 April**
IV	**16 April to 30 April**
Revision	**Onwards 1 May**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75 per cent attendance of total lectures delivered, failing which they will be detained from appearing in university exams.

Text Books

- Critchfield, J.H. (1999): *General Climatology*, Prentice Hall of India), New Delhi.
- Savinder Singh (2005), Climatology, Prayg Publication, New delhi

References

- Mather, J.R. (1974): *Climatology: Fundamentals and Applications,* McGraw Hill Book Co., New York.
- Robinson, P.J. and Menderson, S. (1999): *Contemporary Climatology,* Henlow.
- Lockwood, J.G. (1979): *World Climatology: An Environmental Approach,* Arnold Henemann, London.
- Lutgen, F.K. and Tarbuck, E.J.: *The Atmosphere: An Introduction to Meteorology.* Prentice Hall, New Jersey.

CURRICULUM PLANNING AND IMPLIMENTATION
Paper–I: Regional Planning

Class: M.A. Geography
Semester: IInd
Name of Teacher: Deepa Chaudhary
Availability Timings: 9:00 AM to 3:30 PM
E- mail: deepachaudhary504@yahoo.com

Objectives:

- To understand and evaluate the concept of region in geography and its role and relevance in regional planning.
- To identify the issues relating to the development of the region through the process of spatial organization of various attributes and their interrelationship.
- To identify the causes of regional disparities in development, perspectives and policy imperatives.

Course Content

The process of planning is discussed in this paper and role of geography in regional planning is also discussed. How plan was made and role of remote sensing, global positioning system (GPS) and geographic information system (GIS) are given in this paper. The process of regional development and indicator of development also explained in the subject

Detailed Course Contents: Available at www.gndu.ac.in

What will be the teaching methods:

- Lectures: Six per week.
- Student Seminars: two per week.
- Assignments: The students will be asked to read the textbook in advance and write articles on given topics.
- PowerPoint presentations.
- Participatory and Experiential Learning.
- Quiz.

Program Learning Outcomes:
(Knowledge and Understanding, Intellectual Skills, Practical skills, Transferable Skills).
Learning Outcomes:

D. Knowledge and understanding:

- Choose an approved book from the resource list or another book approved by the teacher.

  While reading the book the students should keep in mind the theme

- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

E. Intellectual (Cognitive/Analytical) Skills:

- Use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- Relate current events to the physical and human characteristics of places and regions
- Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- Show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments.

F. Practical Skills

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	Minimum Score Required (to Qualify for the Next Exam/Class)	Schedule
Continuous Internal Evaluation (CIE)		
10. Class Tests (Unit wise)	40%	After Each Unit
		Each Week
11. Student Seminars	40%	Last Week of February
12. In House Exams	40%	Last week of April onwards

Teaching Outline:

Unit	Teaching Dates
I	**11 January to 6 February**
II	**9 February to 13 March**
III	**19 March to 13 April**
IV	**16 April to 30 April**
Revision	**Onwards 1 May**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75 per cent attendance of total lectures delivered, failing which they will be detained from appearing in university exams.

Text Books

- Chandna, R. C., Regional Planning : A Comprehensive Text, Kalyani Publishers, New Delhi, 2000.

References

- Glasson, John, An Introduction to Regional Planning, Hutchinson Educational, London, 1974.
- Misra, R.P. & Others (ed.), Regional Planning and National Development, Vikas, New Delhi, 1978.
- Prakasa Rao V.L.S., Regional Planning, Asia Publishing House, Bombay, 1968.
- Sundaram, K.V. (ed.), Geography and Planning, Concept, New Delhi, 1985.

CURRICULUM PLANNING AND IMPLIMENTATION
PAPER - IVth Option (1) URBAN GEOGRAPHY

Class: M.A. Geography
Semester: IInd
Name of Teacher: Dr. Pooja Rana
Availability Timings: 9:00 AM to 3:30 PM
E- mail: rana.pooja68@yahoo.com

Objectives:

- To familiarise the students with the theoretical foundations and recent trends in this branch of Geography.
- To provide an understanding of evolutionary, morphological and, functional attributes of urban places at different scales.
- To sensitize the students about contemporary urban problems.

Course Content:
The course provides an introduction of urban places, definition, nature, scope and approaches, development of urban areas and their recent trends, A study of the Location, situation and site aspects of urban places, ecological processes and their spatial expression and theories of internal structure, internal structure of Indian cities and its comparison with western cities. As well as City-region Relations : Basis and nature, definition, demarcation, and functional structure of umland also studies in this course. It also explains how central place works through models of Christaller & Losch. In this course content urban system of India also taken under consideration. Classification of urban places also learn. What are the problems of urban areas like Slums, Pollution also learnt in this subject.

Detailed Course Contents: Available at www.gndu.ac.in

What will be the teaching methods:

- Lectures: Six per week.
- Student Seminars: two per week.
- Assignments: The students will be asked to read the textbook in advance and write articles on given topics.
- PowerPoint presentations.
- Participatory and Experiential Learning.
- Quiz.

Program Learning Outcomes:
(Knowledge and Understanding, Intellectual Skills, Practical skills, Transferable Skills).
Learning Outcomes:

A. Knowledge and understanding:

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

a. Intellectual (Cognitive/Analytical) Skills:

- Use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- Relate current events to the physical and human characteristics of places and regions
- Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- Show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments.

b. Practical Skills

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	Minimum Score Required (to Qualify for the Next Exam/Class)	Schedule
Continuous Internal Evaluation (CIE)		
13. Class Tests (Unit wise)	40%	After Each Unit
		Each Week
14. Student Seminars	40%	Last Week of February
15. In House Exams	40%	Last week of April onwards

Teaching Outline:

Unit	Teaching Dates
I	**11 January to 6 February**
II	**9 February to 13 March**
III	**19 March to 13 April**
IV	**16 April to 30 April**
Revision	**Onwards 1 May**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75 per cent attendance of total lectures delivered, failing which they will be detained from appearing in university exams.

Text Books

- R.B. Mandal (2000) "Urban Geography A Textbook" Concept Publishing Company, New Delhi.
- K. Siddhartha, S. Mukherjee (1999), "Cities Urbanization and Urban Systems", Kisalya Publications. Pvt. Ltd.

References

- Singh, R.L., Urban Geography in Developing Countries, National Geographical Society of India, Varanasi, 1973.
- Smailes, A.E., Geography of Towns, Hutchinson, London, 1965.
- Herbert, D.T., Urban Geography : A Social Perspective, David and Charles, Newton & Abbot, 1977.
- Johnson, J.H., Urban Geography : An Introductory Analysis, Pergamon Press, London, 1972.

CURRICULUM PLANNING AND IMPLIMENTATION
PAPER - IIIrd Quantitative Methods in Geography (Theory and Practical)

Class: M.A. Geography
Semester: IVth
Name of Teacher: Dr. Pooja Rana
Availability Timings: 9:00 AM to 3:30 PM
E- mail: rana.pooja68@yahoo.com

Objectives:

- To provide knowledge of statistical techniques and their application in geography;
- To train the students to apply these techniques and methods to the analysis of the geographic problems.

Course Content:

The course provides quantification in Geography. The course also helps to know the types of spatial data (point, line and area) and levels of their measurement (nominal, ordinal, interval and ratio), census, and sample surveys, sampling designs (with special reference to spatial data). It also discusses the measures of Central Tendency: Mean, median and mode; mean centre, median point, point of minimum aggregate travel distance, and population potential. It also examines how measures of Dispersion: Range, quartile deviation, mean deviation, standard deviation and variance; coefficient of variability and Lorenz Curve, index of spatial dispersion, median distance, standard distance and nearest neighbor analysis useful in geography. In this course content, correlation and Regression of geographical objects through Scatter diagram, correlation by Spearman's Rank Difference and Karl Pearson's Product Moment Methods, regression analysis, construction of regression line; Coefficient of areal correspondence, etc. are studied.

Detailed Course Contents: Available at www.gndu.ac.in

What will be the teaching methods:

- Lectures: Six per week.
- Student Seminars: two per week.
- Assignments: The students will be asked to read the textbook in advance and write articles on given topics.
- PowerPoint presentations.
- Participatory and Experiential Learning.
- Quiz.

Program Learning Outcomes:
(Knowledge and Understanding, Intellectual Skills, Practical skills, Transferable Skills).
Learning Outcomes:

c. Knowledge and understanding:

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

d. Intellectual (Cognitive/Analytical) Skills:

- Use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- Relate current events to the physical and human characteristics of places and regions
- Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- Show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments.

e. Practical Skills

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	Minimum Score Required (to Qualify for the Next Exam/Class)	Schedule
Continuous Internal Evaluation (CIE)		
16. Class Tests (Unit wise)	40%	After Each Unit
		Each Week
17. Student Seminars	40%	Last Week of February
18. In House Exams	40%	Last week of April onwards

Teaching Outline:

Unit	Teaching Dates
I	**11 January to 6 February**
II	**9 February to 13 March**
III	**19 March to 13 April**
IV	**16 April to 30 April**
Revision	**Onwards 1 May**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75 per cent attendance of total lectures delivered, failing which they will be detained from appearing in university exams.

Text Books

- Gupta, S. P., Statistical Methods, Sultan Chand and Sons, Latest Edition.

References

- Gupta, C.B., An Introduction to Statistical Methods, Ram Prasad and Sons, Agra, 1971.
- Robert Hammond and Patrik McCullagh, Quantitative Methods in Geography, Clarendon Press, Oxford, 1974.
- Peter Haggett, Andrew D. Cliff and Allan Frey, Locational Models, Vols. I and II, Arnold Heinemann, New Delhi, 1977.

CURRICULUM PLANNING AND IMPLEMENTATION

Course Name: Geography of India (Systematic And Regional)

Program: MA Geography

Semester: II

Name of the Teacher: Prof. Deepa Chaudhary and Prof. Amit kumar

E-mail: amitkumarak1924@gmail.com

Objectives of the Courses:

- To provide an understanding of: The geographic dimensions of India in terms of its political and administrative characteristics.
- The physical and climatic attributes and their interface with developmental strategies.
- The human and economic dimensions of India in a spatial perspective

Course content:

SEMESTER–II

GEOGRAPHY

GEOGRAPHY OF INDIA (SYSTEMATIC AND REGIONAL)

This course consists of India systematic and regional explaination. India administrative divisions are provided in this course content. The unity in diversity along with unifying mechanism and divisive streaks includuded in this content. The role of language, religion and culture covers in this course. The regional disparity and identity in India including in this paper. The regionalisation scheme of India based on its physical structure, agriculture, climatic types and industries also the part of this course. The northwest region of India with its various basis included in this paper.

Detail syllabus: - Www.gndu.ac.in

Teaching method:

- Lectures: six per week
- Students Seminars: two per week
- Assignments; the students will be asked to read the textbook in advance and write article on given topics
- PowerPoint Presentation
- Participatory and Experiential Learning
- Quiz
- Models and Charts

Program Learning Outcomes:

(Knowledge and Understanding, Intellectual Skills, practical Skills).

Learning outcomes;

A. Knowledge and Understanding

Students will

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

B. Intellectual Cognitive/ Analytical Skills:

Students will be able to

- use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- relate current events to the physical and human characteristics of places and regions
- construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments

C. <u>Practical Skills</u>

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	**Minimum Score Required (to**	**Schedule**
	Qualify for the Next Exam/ Class	
Continuous Infernal Evaluation (CIE) 1. Class Tests (Unit Wise) 2. Students Seminars		
	40%	**After Each Unit**
		Every Week

3. In House Exams	**40%**	**Last Week of September**
End of Semester Exam	**40%**	**Last week of November Onwards**

Teaching Outlines:

Unit	Teaching Dates
I	**15 January to 10 February**
II	**11 February to 6 March**
III	**7 March to 25 March**
IV	**25 March to 15 April**
Revision	**Till 30 April**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75% attendance of the total lectures delivered, failing which they will be detained from appearing in university exams.

Text Book

1. Chandna, R.C., Geography of Population, Kalyani Publishers, Delhi, 1998.

Refrence Books:

- Deshpande, C.D., India : A Regional Interpretation, ICSSR and Northern Book Center, New Delhi, 1992.
- India, A Reference Annual : Ministry of Information & Broadcasting, GOI, New Delhi, 2004.
- Muthiah, S., A Social and Economic Atlas of India, Oxford University Press, Delhi, 1987.
- Siddhartha, K., India : The Physical Aspects, Transworld Media & Communications Pvt. Ltd., New Delhi.
- Singh, Jagdish, India : A Comprehensive Systematic Geography, GyanodyaPrakashan, Gorakhpur, 2003.

- Spate O.H.K. & A.T.A. Learmonth, Geography of India and Pakistan, Methuen, London (First Indian Edition,1984, MunshiramManoharlal, New Delhi.), 1967.
- Sukhwal, B. L., India : A Political Geography, Allied Publishers, New Delhi.
- Tirtha, Ranjit, Emerging India, Conpub. Ann Arbour, U.S.A. (Reprint Edition, 1996, Rawat Pub., Jaipur), 1992.
- Tiwari, R.C., Geography of India, Prayag Publishers, Allahabad, 1999.
- Wadia, D. N., Geology of India, Macmillan & Co., London, 1953.
- Center for Science and Environment, State of India's Environment, New Delhi, 1985.
- Dreze, Jean and AmartyaSen, Indian Development, Oxford University Press, Delhi, 1996.
- Farmer, B. H., Introduction to South Asia, Methuen, London, 1983.
- Francis, Robinson, The Cambridge Encyclopaedia of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, and the Maldives, Cambridge University Press, London, 1989.
- Gazetteer of India, Vol. I & II, Ministry of Information & Broadcasting, GOI, New Delhi, 1973.
- 6. Singh, K.S., People of India, Anthropological Survey of India, Dehradun, 1992.

CURRICULUM PLANNING AND IMPLEMENTATION

PAPER - II: CLIMATOLOGY

Class: B.A. Geography
Semester: IInd
Name of Teacher: Prof. Gitanjali Kalia & Prof. Onkar Singh
Availability Timings: 9:00 AM to 3:30 PM
E- mail: gitanjaligeo7@gmail.com, onkarsinghlkc@gmail.com

Objectives:
The overall objective of the course is to foster comprehensive understanding of atmospheric phenomena; dynamics and global climates.

Course Content
Climate and Weather. Climate: Elements and controls. Physical structure of the atmosphere and attributes of different layers, Physical and Chemical composition of the atmosphere: Dust particles, vapour particles, active gases, inert gases. Insolation and Temperature: Horizontal distribution of insolation, factors affecting temperature of a place, vertical and horizontal and annual, seasonal and diurnal distribution of temperature. Atmospheric Pressure and Winds Distribution: Atmospheric disturbances (Tropical cyclones, temperate cyclones and anticyclones). Atmospheric Moisture: Forms of condensation – Cloud, dew, fog and frost. Precipitation forms and types. World patterns of precipitation: Spatial and seasonal. Climatic Classifications and their Bases: Elementary discussion of Koppen's classification of climates and climatic types. Role of Climate in Human Life: Atmospheric pollution and global warming – general causes, consequences and measure of control. Oceanography: Definition, topography of the ocean basins; continental shelf, continental slope, deep sea plain and oceanic deep. Features: Trench, trough, oceanic ridge, guyots, seamount. Factors controlling the world patterns of distribution of temperature and salinity in the ocean waters. Movements of Oceanic Waters: Waves and currents. Surface currents of the oceans. Marine Flora, Fauna and Deposits, Corals. Ocean as storehouse of resources for the future.

Detailed Course Contents: Available at www.gndu.ac.in

What will be the teaching methods:
- Lectures: Six per week.
- Student Seminars: two per week.
- Assignments: The students will be asked to read the textbook in advance and write articles on given topics.
- PowerPoint presentations.
- Participatory and Experiential Learning.
- Quiz.

Program Learning Outcomes:
(Knowledge and Understanding, Intellectual Skills, Practical skills, Transferable Skills).
Learning Outcomes:

G. Knowledge and understanding:

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

H. Intellectual (Cognitive/Analytical) Skills:

- Use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- Relate current events to the physical and human characteristics of places and regions
- Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- Show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments.

I. Practical Skills

Student will learn to:

- To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
- To provide training in application of various graphical methods of depicting geographic data.
- To train the students to interpret the information at different scales.
- To provide an analytical understanding of use of common map.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about data processing and analysis

Modes of Assessment	Minimum Score Required (to Qualify for the Next Exam/Class)	Schedule
Continuous Internal Evaluation (CIE)		
19. Class Tests (Unit wise)	40%	After Each Unit
		Each Week
20. Student Seminars	40%	Last Week of February
21. In House Exams	40%	Last week of April onwards

Teaching Outline:

Unit	Teaching Dates
I	**11 January to 6 February**
II	**9 February to 13 March**
III	**19 March to 13 April**
IV	**16 April to 30 April**
Revision	**Onwards 1 May**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75 per cent attendance of total lectures delivered, failing which they will be detained from appearing in university exams.

Text Books

- Critchfield, J.H. (1999): *General Climatology*, Prentice Hall of India), New Delhi.
- Savinder Singh (2005), Climatology, Prayg Publication, New delhi

References

- Mather, J.R. (1974): *Climatology: Fundamentals and Applications,* McGraw Hill Book Co., New York.
- Robinson, P.J. and Menderson, S. (1999): *Contemporary Climatology,* Henlow.
- Lockwood, J.G. (1979): *World Climatology: An Environmental Approach,* Arnold Henemann, London.
- Lutgen, F.K. and Tarbuck, E.J.: *The Atmosphere: An Introduction to Meteorology.* Prentice Hall, New Jersey.

CURRICULUM PLANNING AND IMPLEMENTATION
Course Name: CARTOGRAPHY–II

Program: BA (Practical)
Semester: II

Name of the Teacher: Prof. Gitanjali Kalia & Prof. Onkar Singh

E-mail: gitanjalikalia01@yahoo.com, onkarsinghlkc@gmail.com

Objective:

Geography is an amalgam of physical as well as social sciences and as such it is necessary for the students to go through laboratory exercises particularly to show directions and bearings and different methods of representing relief. Knowledge of directions and bearings is essential and an introduction to weather maps is also required

Course content:

CARTOGRAPHY–II

UNIT–I

Direction and Bearings: Plotting of a course, true north, magnetic north, finding true north with the pole star, a watch and a rod; bearing and its conversion. Enlargement and Reduction: Graphic methods–square and triangle; instrumental methods– Pantographic, Xeroxing photographic.

UNIT–II

Weather Maps: General Introduction to the study of weather maps, the scheme of weather symbols including Beaufort's scale employed in Indian daily weather maps; weather in India: summer season (period of summer monsoon), winter season, forecasting of weather through the study of weather maps and recent advances in weather forecasting.

Teaching method:

- Lectures: six per week
- Students Seminars: two per week
- Assignments; the students will be asked to read the textbook in advance and write article on given topics

- PowerPoint Presentation
- Participatory and Experiential Learning
- Quiz

Program Learning Outcomes:

(Knowledge and Understanding, Intellectual Skills, practical Skills,).

Learning outcomes;

A. Knowledge and Understand):

Students will

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

B. Intellectual Cognitive/ Analytical Skills:

Students will be able to

- use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- relate current events to the physical and human characteristics of places and regions
- construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.

- show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments

C. <u>Practical Skills</u>

Student will learn to:

1. To apprise the students with symbolization of different types of geographical data and depiction on map

2. To provide training in application of various graphical methods of depicting geographic data.

3. To train the students to interpret the information at different scale

Modes of Assessment	**Minimum Score Required (to**	**Schedule**
	Qualify for the Next Exam/ Class	
Continuous Infernal Evaluation (CIE) 1. Class Tests (Unit Wise) 2. Students Seminars		
	40%	**After Each Unit**
	40%	**Every Week**
End of Semester Exam	**40%**	**Last week of April Onwards**

<u>Teaching Outlines:</u>

Unit	**Teaching Dates**
I	**15 February to 6 March**
II	**7March to 15 April**
Revision	**Till 30 April**

<u>Attendance Policy</u>

Lecture attendance is mandatory. Students are expected to maintain 75% attendance of the total lectures delivered, failing which they will be detained from appearing in university exams.

<u>Text Book</u>

Khullar, D.R.: Essentials of Practical Geography, New Academic Publishing Co.,

Mai Hiran Gate, Jalandhar, 2016

References Books:

1. Mishra, R.P. & Ramesh, A.: Fundamental of Cartography, Concept Publishing Co.,
2. New Delhi, 1989.
3. Monkhouse, F.J. and Wilkinson, H.R.: Maps and Diagrams, Methuen & Co., London,
4. Third Edition, 1976.
3. Robinson, A.H. & Randall, D. Sale: Elements of Cartography, John Wiley & Sons, New
5. York, (Sixth Edition), 1995.

CURRICULUM PLANNING AND IMPLEMENTATION

Course Name: MAPWORK AND PRACTICAL GEOGRAPHY

Program: BA (Practical**)**

Semester: IV

Name of the Teacher: Amit kumar

E-mail: amitkumarak1924@gmail.com

Objectives of the Courses:

1.To apprise the students with symbolization of different types of geographical data and depiction of various spatial data.

2. To provide training in application of various graphical methods of depicting geographic data.
3. To train the students to interpret the topographical sheets at different scales course Content

Course content:

MAPWORK AND PRACTICAL GEOGRAPHY

In this course, the construction and significance of map work is included. It consists of columnar diagrams and graphs construction. The study regarding topographical maps is being made. Its uses are also included in it. There interpretation in various fields is being taught.

Detailed Syllabus: Visit www.gndu.ac.in

Teaching method:

- Lectures: Twelve per week
- Students Seminars: two per week
- Assignments; the students will be asked to read the textbook in advance and write article on given topics
- PowerPoint Presentation
- Participatory and Experiential Learning
- Quiz
- Models and Charts

Program Learning Outcomes:

(Knowledge and Understanding, Intellectual Skills, Practical Skills).

Learning outcomes;

C. Knowledge and Understand):

Students will

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

D. Intellectual Cognitive/ Analytical Skills:

Students will be able to

- use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- relate current events to the physical and human characteristics of places and regions
- construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments

C. Practical Skills

Student will learn to:

1. To apprise the students with symbolization of different types of geographical data and depiction on map

2. To provide training in application of various graphical methods of depicting geographic data.

3. To train the students to interpret the information at different scales.

Modes of Assessment	**Minimum Score Required (to Qualify for the Next Exam/ Class**	**Schedule**
Continuous Infernal Evaluation (CIE) 1. Class Tests (Unit Wise) 2. Students Seminars	**40%**	**After Each Unit**
	40%	**Every Week**
End of Semester Exam	**40%**	**Last week of April Onwards**

Teaching Outlines:

Unit	**Teaching Dates**
I	**15 February to 6 March**
II	**7March to 15 April**
Revision	**Till 30 April**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75% attendance of the total lectures delivered, failing which they will be detained from appearing in university exams.

Text Book

- Khullar, D.R.: Essentials of Practical Geography, New Academic Publishing Co., Mai HiranGate, Jalandhar, 2016.

Further Readings:

- Robinson, A.H.: Elements of Cartography, John Wiley, New York, 1995.
- Singh, Gopal: Mapwork& Practical Geography, Vikas Publishing House Pvt. Ltd., New
- Delhi, 1995.
- Singh, R.L. & Singh Raghunandan: Mapwork and Practical Geography, Central Book Depot,
- Allahabad, 1993.
- Further Readings:
- Birch, T.W.: Maps Topographical & Statistical; Clarendon Press, Oxford, 1949.
- Garnett, A.: Geographical Interpretation of Topographical Maps, George Harrap& Co.,
- London, 1953.
- Monkhosue, F.JS.: Maps and Diagrams, Methuen & Co., London, 1994 (reprint).

CURRICULUM PLANNING AND IMPLEMENTATION

Course Name: Geography of India

Program: BA Geography of India

Semester: VI

Name of the Teacher: Deepa Chaudhary

E-mail: deepachaudhary@yahoo.com

Objectives of the Courses:

1. To understand the regional setting of India in detail through physical and political maps.

2. To examine the pattern of select population characteristics.

3. To study the distribution of major crops, industries and transport links in the state.

4. To understand the intra regional variations in the select aspects

Course content:

SEMESTER–VI

GEOGRAPHY

GEOGRAPHY OF INDIA

In this course, the india in the context of other world nations and continent included. It also include the physical feature, Draingae system, natural vegetation, Climatic types prevailing in nation and types of soils.It also tells about the different types of ores found here and their basi importance to nation in developing its economy.The human being as important part of any economy also included in this course of study. It included its numbers, density, growth, migration and impact of urbanisation on it.Agriculture is the base of ang developing nation. So. thus course tells abour the agricultural characteristics and its types found in this nation. The industries as act as backbone of country, this course also provides knowledge regarding this.The international trade and its impact included in it.

Detailed Course:- Visit www.gndu.ac.in

.**Teaching method:**

- Lectures: six per week
- Students Seminars: two per week
- Assignments; the students will be asked to read the textbook in advance and write article on given topics
- PowerPoint Presentation
- Participatory and Experiential Learning
- Quiz
- Models and Charts

Program Learning Outcomes:

(Knowledge and Understanding, Intellectual Skills, Practical Skills).

Learning outcomes;

- **Knowledge and Understand):**

  Students will

  - Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
  - As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
  - After reading their book the students should create collage that illustrates the elements found in their particular book
  - Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

- **IntellectualCognitive/ Analytical Skills:**

  Students will be able to

  - use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.

- relate current events to the physical and human characteristics of places and regions
- construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments

C. <u>Practical Skills</u>

Student will learn to:

a. To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
b. To provide training in application of various graphical methods of depicting geographic data.
c. To train the students to interpret the information at different scales.
d. To provide an analytical understanding of use of common map.
e. To acquaint the students with the importance of field work as one of the methodologies in geography.
f. To sensitize the students about data processing and analysis

Modes of Assessment	**Minimum Score Required (to**	**Schedule**
	Qualify for the Next Exam/ Class	
Continuous Infernal Evaluation (CIE) 3. Class Tests (Unit Wise) 4. Students Seminars 5. In House Exams		
	40%	**After Each Unit**
		Every Week
	40%	**Last Week of September**
End of Semester Exam	**40%**	**Last week of November Onwards**

Teaching Outlines:

Unit	Teaching Dates
I	15 January to 10 February
II	11 February to 6 March
III	7March to 25 March
IV	25 March to 15 April
Revision	Till 30 April

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75% attendance of the total lectures delivered, failing which they will be detained from appearing in university exams.

Text Book

Malkit Singh: Geography of India, RasmeetPrakashan, Jalandhar, Reprint 2014

Further Readings:

- Deshpande, C.D.: India: A Regional Interpretation, Northern Book, Centre, New Delhi, 1992.
- Johnson, B.L.C.: South Asia, Heinemann, London, 1981.
- Spate, O.H.K. &Learmonth, A.T.A.: India and Pakistan: A General and Regional Geography, Methuen, London, 1967.
- Tirtha, Ranjit&Krishan, Gopal: Emerging India: A Geographical Introduction, Conoub, Ann Arber, Michigan (U.S.A.) 1992.
- Malkit Singh: Geography of India, RasmeetPrakashan, Jalandhar, Reprint 2014.
- D.S. Mankoo: Geography of India, Kalyani Publishers, Jalandhar.

CURRICULUM PLANNING AND IMPLEMENTATION

PAPER- GEOGRAPHY OF PUNJAB (THEORY)

Program: BA GEOGRAPHY

Semester: IV

Name of the Teacher: Amit kumar

E-mail:- amitkumarak1924@gmail.com

Objective of the course:

- To understand the regional setting of Punjab State in detail through physical and political maps.
- To examine the pattern of select population characteristics.
- To study the distribution of major crops, industries and transport links in the state.
- To understand the intra regional variations in the select aspects.

Course content:

A Location, Evolution of the State, Administrative Divisions, Relief, Drainage, Climate, Soils, Vegetation, Mineral and Power Resources. Population: Numbers, distribution, density, growth (birth rate, death rate and migration), religious composition, urbanization. Agriculture: Main characteristics including green revolution, irrigation, main crops (wheat, rice, cotton, sugarcane) and their distribution, agricultural marketing, livestock and dairying, problems of agriculture. Industries: Main characteristics, distribution pattern of major industries (cotton textile, sugar, hosiery, engineering) industrial concentration, problems of industrialization. Transport and Trade: Road, rail and their transport; Inter-State trade. Regional Geography of Majha, Doaba, Malwa and major characteristics of each region.

Detailed Course:- Visit www.gndu.ac.in

.**Teaching method:**

- Lectures: six per week
- Students Seminars: two per week
- Assignments; the students will be asked to read the textbook in advance and write article on given topics
- PowerPoint Presentation
- Participatory and Experiential Learning
- Quiz
- Models and Charts

Program Learning Outcomes:

(Knowledge and Understanding, Intellectual Skills, Practical Skills).

Learning outcomes;

- **Knowledge and Understand):**

  Students will

  - Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
  - As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
  - After reading their book the students should create collage that illustrates the elements found in their particular book
  - Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

- **IntellectualCognitive/ Analytical Skills:**

  Students will be able to

  - use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
  - relate current events to the physical and human characteristics of places and regions
  - construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
  - show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments

C. Practical Skills

Student will learn to:

g. To apprise the students with symbolization of different types of geographical data and depiction of various spatial data of Punjab map
h. To provide training in application of various graphical methods of depicting geographic data.
i. To train the students to interpret the information at different scales.
j. To provide an analytical understanding of use of common map.
k. To acquaint the students with the importance of field work as one of the methodologies in geography.
l. To sensitize the students about data processing and analysis

Modes of Assessment	**Minimum Score Required (to**	**Schedule**
	Qualify for the Next Exam/ Class	
Continuous Infernal Evaluation (CIE) 6. Class Tests (Unit Wise) 7. Students Seminars 8. In House Exams		
	40%	**After Each Unit**
		Every Week
	40%	**Last Week of September**
End of Semester Exam	**40%**	**Last week of November Onwards**

Teaching Outlines:

Unit	**Teaching Dates**
I	**15 January to 10 February**
II	**11 February to 6 March**
III	**7March to 25 March**
IV	**25 March to 15 April**
Revision	**Till 30 April**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75% attendance of the total lectures delivered, failing which they will be detained from appearing in university exams.

Text book: Mankoo, Darshan S.: Geography of Punjab, Kalyani Publication, Ludhiana, 2009.

Further Readings:

Census of India: Punjab: Census Atlas, Vol. XIII, No. IX, 1996.

Deshpande, C.D.: India: A Regional Interpretation, Northern Book Centre, New Delhi, 1992.

Gosal G.S. & Gopal Krishan: Regional Disparities in Levels of Socio-Economic Development in Punjab, Vishal Publications, Kurukshetra, 1984.

Gupta, S.P.: The Punjab: An Overview, Ess Pee Publications, Chandigarh, 2005.

Singh, Pritam: Punjab Economy: The Emerging Pattern, Enkay Publishers, New Delhi, 1995.

Singh, R.L., (Ed.): India: A Regional Geography, National Geographical Society of India, 1990, reprint.

Spate O.H.K. & Learmonth, A.T.A.: India and Pakistan: A General and Regional Geography. Metheun, London, Latest Edition.

CURRICULUM PLANNING AND IMPLEMENTATION

Course Name: MAP PROJECTIONS-II AND FIELD WORK

Program: BA (Practical**)**

Semester: IV

Name of the Teacher: Deepa Chaudhary

E-mail:- deepachaudhary@yahoo.com

Objectives of the Courses:

- To Provide an analytical understanding of use of common map projections.
- To acquaint the students with the importance of field work as one of the methodologies in geography.
- To sensitize the students about pre-field work and post-field work i.e. data processing and analysis and writing of field work report.

Course content:

SEMESTER–VI

GEOGRAPHY PRACTICAL

In this course, construction, properties and limitations of different types of map projections like Zenithals: Gnomonic, Stereographic, Orthographic, Equi-distance Equal-Area (Polar cases only). This course also include the introduction to Sinusoidal and Molleweide's Projections. The knowledge regarding General principles of identification and choice of projections is being provided in this course. The importance of role of field work in Geography., the Scale of study and field work methodology also given ij this course. Methods of collecting Primary data (questionnaire, observation, interview and measurement) and Secondary data and parts of report

is being provided. Methods of field study of: a Farm, a Village, a Town and Physical Features of an area is also acquainted by this course study.

Teaching method:

- Lectures: Twelve per week
- Students Seminars: two per week
- Assignments; the students will be asked to read the textbook in advance and write article on given topics
- PowerPoint Presentation
- Participatory and Experiential Learning
- Quiz
- Models and Charts

Program Learning Outcomes:

(Knowledge and Understanding, Intellectual Skills, Practical Skills).

Learning outcomes;

E. Knowledge and Understand):

Students will

- Choose an approved book from the resource list or another book approved by the teacher. While reading the book the students should keep in mind the theme
- As the students read their book they should take detailed chapter notes. In their chapter notes the students should identify characteristics that represent the seven elements and examples of the geographical theme
- After reading their book the students should create collage that illustrates the elements found in their particular book
- Once completed the students will be expected to give a brief book talk where they will discuss the overview of their book.

F. Intellectual Cognitive/ Analytical Skills:

Students will be able to

- use a variety of maps and documents to interpret human movement, changing environmental preferences and settlement patterns, and the diffusion of ideas, technological innovations, and goods.
- relate current events to the physical and human characteristics of places and regions
- construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.
- show the connections, causal and otherwise, between particular historical events and larger social, economic, and political trends and developments

C. Practical Skills

Student will learn to:

1. To apprise the students with symbolization of different types of geographical data and depiction on map

2. To provide training in application of various graphical methods of depicting geographic data.

3. To train the students to interpret the information at different scales.

Modes of Assessment	**Minimum Score Required (to**	**Schedule**
	Qualify for the Next Exam/ Class	
Continuous Infernal Evaluation (CIE)		
9. Class Tests (Unit Wise)	**40%**	**After Each Unit**
10. Students Seminars	**40%**	**Every Week**

End of Semester Exam	**40%**	**Last week of April Onwards**

Teaching Outlines:

Unit	Teaching Dates
I	**15 February to 6 March**
II	**7March to 15 April**
Revision	**Till 30 April**

Attendance Policy

Lecture attendance is mandatory. Students are expected to maintain 75% attendance of the total lectures delivered, failing which they will be detained from appearing in university exams.

Text Book

Singh, Malkiat: Cartography, RasmeetPrakashan, Jalandhar, Reprint 2014.

Further Readings:

Kellaway, George P.: Map Projections, Methue and Co., London.

Singh, Gopal: Mapwork and Practical Geography, Surjeet Book Depot, Delhi, 1993.

Singh, L.R: Practical Geography, Chaitanya, Publishing House, Allahabad, 2006.

Jones, P.A.: Field Work in Geography, Longman, London, 1968.

Archer, J.E. & Dalton T.H.: Field Work in Geography, E.T. Bastford Ltd., London, 1968.

Singh, Gopal: Map work and Practical Geography, Surjeet Book Depot, Delhi, 1993