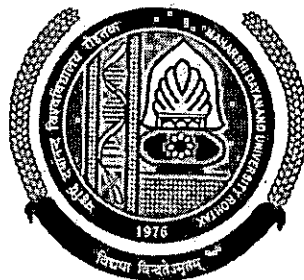


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Syllabi and S.O.E. for Minor Course(s) for UG Programs w.e.f. 2024-25 session

**SYLLABI AND SCHEME OF
EXAMINATIONS
FOR
MINOR COURSES FOR UNDER
GRADUATE PROGRAMS
(SINGLE MAJOR /
MULTIDISCIPLINARY
PROGRAMS)**

(Based on Curriculum and Credit Framework for UG Programs under NEP)



**WITH EFFECT FROM
THE
SESSION 2024-25**

**MAHARSHI DAYANAND UNIVERSITY
ROHTAK (HARYANA)**

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**SYLLABI AND SCHEME OF EXAMINATIONS FOR MINOR COURSES FOR
UNDER GRADUATE SINGLE MAJOR/MULTIDISCIPLINARY PROGRAMS/ SINGLE MAJOR
PROGRAM AFTER 2nd SEMESTER OF MULTIDISCIPLINARY PROGRAM**

Minor Courses (MIC)/ Minor (Vocational) Course MIC(VOC)	Type of Program		Nomenclature of Course	Course Code	Credits Distribution			Total Credits			Workload			Marks				Total Marks	
	SINGLE MAJOR PROGRAM	Multidisciplinary Program / Single Major Program After 2nd Semester Of Multidisciplinary Program			L	T	P	L	T	P	L	T	P	Theory		Practical			
														Internal	External	Internal	External		
SEMESTER	SEMESTER																		
MIC 1 @ 4 credits	1	1	Introduction to Geography & Elements of Map	24GEO401MI01	2		2			2		4		6	15	35	15	35	100
MIC 2 @ 4 credits	2	3	Introduction to Climatic Elements & Measurement and Representation of Climatic Data	24GEO402MI01	2		2			2		4		6	15	35	15	35	100

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R *Saksh* *Somvir* *Vin* *Mehar Singh*
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Syllabi and S.O.E. for Minor Course(s) for UG Programs w.e.f. 2024-25 session

MIC 3 @ 4 credits	3	5	Basics of Weather Map & Interpretation of Weather Map	25GEO403MI01	2		2		2		4	6	15	35	15	35	100
MIC 4 (VOC) @ 4 credits	4	4	Introduction to Remote Sensing and GIS & Interpretati on of Aerial Photographs and Satellite Imageries	25GEO404MV0 1	2		2		2		4	6	15	35	15	35	100
MIC 5 (VOC) @ 4 credits	5	5	Map Reading & Interpretation of Toposheets	26GEO405MV0 1	2		2		2		4	6	15	35	15	35	100
MIC 6 (VOC) @ 4 credits	6	6	Environment al Awareness & Case Studies/ Field Study of Environment al Issues	26GEO406MV0 1	2		2		2		4	6	15	35	15	35	100
MIC 8 (VOC) @ 4 credits	8	8	Research Methods & Report Writing	27GEO408MV0 1	2		2		2		4	6	15	35	15	35	100

L: Lecture; T: Tutorial; P: Practical

Sahni B. *Dr. Rana*

Dr. Saleem *Samir*

Mohit
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Note:

1. The Syllabi and Scheme of Examinations (SOE) for Minor (Vocational) Courses for UG Semester 7 and Semester 8 will be same as applicable for Vocational Course in Post Graduate semester 1 and semester 2 respectively.
2. Course coding of Minor courses for Single Major Programs will be applicable for Multidisciplinary Programs/ Multidisciplinary Programs after 2nd semester irrespective of their offering in any semester.
3. The student who select any Minor Course (MIC) of any discipline in first semester should study the Minor courses (MIC) in the same discipline in the subsequent semesters. However, while exercising the option for choosing Minor Vocational Course MIC (VOC), the student may opt the discipline either related to the discipline of Minor Course or the discipline of Major Course or any other discipline as per his/her choice.

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Sahni B. B. Singh

Dr. Anil Kumar

Mohd. Iqbal
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Syllabi for Minor Course (s) in Geography

Semester-I

Session: 2024-25

Name of Program		Program Code	
Name of the Course	Introduction to Geography (Part-A) & Elements of Map (Practical) (Part-B)	Course Code	24GEO401MI01
Introduction to Geography (Part-A)			
Hours per Week	02	Credits	02
Maximum Marks: 50	Internal Assessment (Max. Marks:15) Attendance: 05 Sessional Examination:10	End Semester Examination (Max. Marks:35)	Time of Examinations: 03 Hours
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing short answer type questions from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual knowledge of general geography background of the concepts of land surveying. CLO 2: To have a base of wide range of ideas and current issues in geography. CLO 3: To acquire a comprehensive knowledge and future scope of specialization in the course.			
Unit 1: Geography: nature, scope and branches; place of geography in the classification of sciences; geography and others disciplines; career opportunities for geographers.			
Unit 2: Core geographic concepts: location, direction, patterns, world time-zones, Indian standard time, international date-line; interior of the earth; plate-tectonic theory; meaning and classification of rocks: igneous, sedimentary and metamorphic.			
Unit 3: Composition and structure of the atmosphere; elements of weather and climate; atmospheric temperature; insolation and heat budget; vertical and horizontal distribution of pressure; wind circulation: planetary, periodic and local winds.			
Unit 4: Atmospheric moisture: humidity, evaporation and condensation; hydrological cycle; types of precipitation, distribution of rainfall; atmospheric pollution: causes, consequences and measures to control; atmospheric pollution and global warming.			
References:			
<ul style="list-style-type: none"> • Singh, S. (1998) Geomorphology, Prayag Pustakalaya, Allahabad. • Strahler, A. N., Strahler, A. H. (1992) Modern Physical Geography; John Wiley & Sons, New York. • Lal, D.S. (in English & Hindi, 1986) Climatology, Chaitanya Publications, Allahabad. • Singh, S. (2006) Jalwayu Vigyan, Prayag Pustak Bhawan, Allahabad. • Goutam, A. (2016) Jalwayu Avam Samudra Gyan, Sarda Pustak Bhawan, Allahabad. 			

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Syllabi and S.O.E. for Minor Course(s) for UG Programs w.e.f. 2024-25 session
Semester-I

Session: 2024-25

Name of Program		Program Code	
Name of the Course	Introduction to Geography (Part-A) & Elements of Map (Practical) (Part-B)	Course Code	24GEO401MI01
Elements of Map (Practical) (Part-B)			
Hours per Week	04	Credits	02
Maximum Marks: 50	Internal Assessment (Max. Marks:15) Attendance: 05 Practical Assignments/Practical File:10	End Semester Examination (Max. Marks: 35) Lab Test: 21 Practical Record: 07 Viva-voce: 07	Time of Examination: 03 Hours
Note: At least eight exercises are to be prepared from all the units covering entire syllabus. In the examination, the lab test shall comprise of six questions in all, with three questions from each unit. The candidate has to attempt three questions, selecting at least one question from a unit.			
Course Learning Outcomes (CLO): CLO 1: To have a systematic knowledge of surveying methods. CLO 2: To know the historical development of cartography. CLO 3: To understand the map classification.			
Unit 1: Nature, subject matter and historical development of cartography; basic concepts of cartography; classification and applications of maps: distribution maps.			
Unit 2: Elements of map: title, direction, index, conventional signs and symbols (point, line and area), scale, latitudes and longitudes.			
References: <ul style="list-style-type: none"> • Singh L. R. (2016) Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad. • Sarkar, A. (2015) Practical geography: A systematic approach, Orient Black Swan Private Ltd., New Delhi. • Robinson, A. H., Morrison, J. L., Muehrcke, P. C., Kimerling, A. J. and Guptill, S. C. (1995) Elements of Cartography, John Wiley, New York. • Sharma, J.P. (2016) Prayogik Bhugol, Rastogi Publications, Meerut. • Kannan, M. and Yadav, S. (2022) Practical Geography, Rawat Publications, Jaipur. 			

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By (Signature) Somvir Vira
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Syllabi and S.O.E. for Minor Course(s) for UG Programs w.e.f. 2024-25 session
Semester-II

Session: 2024-25

Name of Program		Program Code	
Name of the Course	Introduction to Climatic Elements (Part-A) & Measurement and Representation of Climatic Data (Practical) (Part-B)	Course Code	24GEO402MI01
Introduction to Climatic Elements (Part-A)			
Hours per Week	02	Credits	02
Maximum Marks:50	Internal Assessment (Max. Marks:15) Attendance: 05 Sessional Examination:10	End Semester Examination (Max. Marks:35)	Time of Examinations: 03 Hours
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing short answer type questions from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual knowledge of weather and climate. CLO 2: To have a systematic knowledge of atmospheric circulation. CLO 3: To have a base of wide range of ideas and current issues of weather and climate.			
Unit 1: Climate: meaning and definitions; climate and weather; elements of weather and climate; climate and human habitat.			
Unit 2: Factors affecting climate: latitude, altitude, relief features, vegetation, prevailing winds and distance from sea; climate and human habitat.			
Unit 3: Major climatic elements: meaning and introduction; temperature- maximum, minimum and average; atmospheric pressure and pressure belts; humidity: types; precipitation: types, process of precipitation.			
Unit 4: Wind: dynamics of wind circulation, wind circulation and impact on local weather conditions; wind circulation and Indian monsoon system.			
References: <ul style="list-style-type: none"> • Critchfield, H. J. (1987) General Climatology, Prentice Hall of India, New Delhi. • Trewartha, G.T. and Horne, L. H. (1980) An Introduction to Climate, McGraw Hill. • Lal, D.S. (2006) Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad. • Vatal, M. (1986) Bhautik Bhugol, Central Book Depot, Allahabad. • Singh, S. (2009) Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad. • Singh, S. (2009) Climatology, Prayag Pustak Bhawan, Allahabad. 			

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Syllabi and S.O.E. for Minor Course(s) for UG Programs w.e.f. 2024-25 session
Semester-II

Session: 2024-25

Name of Program		Program Code	
Name of the Course	Introduction to Climatic Elements (Part-A) & Measurement and Representation of Climatic Data (Practical) (Part-B)	Course Code	24GEO402MI01
Measurement and Representation of Climatic Data (Practical) (Part-B)			
Hours per Week	04	Credits	02
Maximum Marks:50	Internal Assessment (Max. Marks:15) Attendance: 05 Practical Assignments/Practical File:10	End Semester Examination (Max. Marks: 35) Lab Test: 21 Practical Record: 07 Viva-voce: 07	Time of Examinations: 03 Hours
Note: At least eight exercises are to be prepared from all the units covering entire syllabus. In the examination, the lab test shall comprise of six questions in all, with three questions from each unit. The candidate has to attempt three questions, selecting at least one question from a unit.			
Course Learning Outcomes (CLO): CLO 1: To have a systematic knowledge of weather and climate. CLO 2: To know the presentation of climatic data. CLO 3: To understand the Indian weather phenomena.			
Unit 1: Representation of climatic data: concepts and requirements; weather instruments: types and applications; temperature measurements: simple thermometer, six's maximum-minimum thermometer, dry & wet bulb thermometer, thermograph; humidity measurements: absolute humidity and relative humidity, hygrograph; precipitation measurement: using rain gauge; atmospheric pressure measurement: barometer and barograph.			
Unit 2: Representation of climatic data: line graph, combined line and bar graph, climograph, hythergraph; isotherms: world mean temperatures-January to July; India mean temperatures - January to July; isobars: India mean pressure - January to July.			
References: <ul style="list-style-type: none"> • Bhat, L. S. and Mahmood, A. (2009) Field Work Laboratory Techniques in Geography- A practical Geography Text Book NCERT, New Delhi. • Mishra, R. P. and Ramesh, A. (2002) Fundamentals of Cartography, Concept Publishing Company. • Kannan, M. and Yadav, S. (2022) Practical Geography, Rawat Publications, Jaipur. • Saha, P. and Basu, P. (2021) Advanced Practical Geography, Books and Allied Pvt. Ltd. 			

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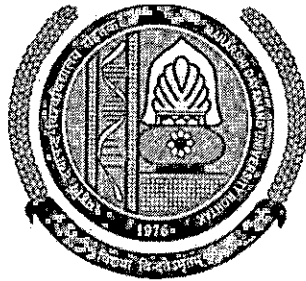
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Annexure IX

SYLLABI AND SCHEME OF
EXAMINATIONS
FOR
MULTIDISCIPLINARY COURSES
FOR UNDER GRADUATE
PROGRAMS (SINGLE MAJOR /
MULTIDISCIPLINARY
PROGRAMS) Geography

(Based on Curriculum and Credit Framework for UG Programs under NEP)



WITH EFFECT FROM
THE
SESSION 2024-25

MAHARSHI DAYANAND UNIVERSITY
ROHTAK (HARYANA)

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**SYLLABI AND SCHEME OF EXAMINATIONS FOR MULTIDISCIPLINARY COURSES FOR
UNDER GRADUATE SINGLE MAJOR/MULTIDISCIPLINARY PROGRAMS/ SINGLE MAJOR
PROGRAM AFTER 2nd SEMESTER OF MULTIDISCIPLINARY PROGRAM**

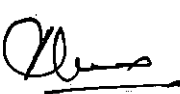

Name of the Department	Nomenclature of Multidisciplinary Course (MDC) @ 3 credits	Course Code	Credits Distribution			Total Credits	Workload			Total Workload	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Geography	General Geography	24GEOX01MD01	3			3	3			3	25	50			75
Geography	Geography and Environment	24GEOX02MD01	3			3	3			3	25	50			75
Geography	Geography of India: Introductory Perspective	25GEOX03MD01	3			3	3			3	25	50			75

L: Lecture; T: Tutorial; P: Practical

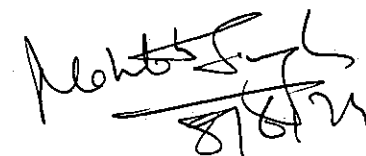
Note:

A student has to opt for three Multidisciplinary Courses in first three semester from the pool of the courses offered in the disciplines other than those of Major disciplines and Minor disciplines and the one not studied at 10+2 or equivalent level.

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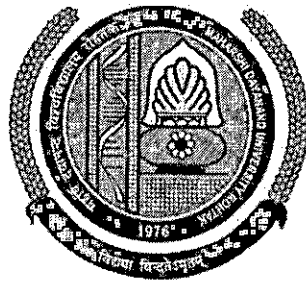
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Syllabi and S.O.E. for Skill Enhancement Course(s) for UG Programs w.e.f. 2024-25 session

**SYLLABI AND SCHEME OF
EXAMINATIONS
FOR
SKILL ENHANCEMENT COURSES
FOR UNDER GRADUATE
PROGRAMS (SINGLE MAJOR /
MULTIDISCIPLINARY
PROGRAMS) OFFERED BY
Geography (Name of the Department)
(Based on Curriculum and Credit Framework for UG Programs under NEP)**



**WITH EFFECT FROM
THE
SESSION 2024-25**

**MAHARSHI DAYANAND UNIVERSITY
ROHTAK (HARYANA)**

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SYLLABI AND SCHEME OF EXAMINATIONS FOR SKILL ENHANCEMENT COURSES FOR UNDER GRADUATE SINGLE MAJOR/MULTIDISCIPLINARY PROGRAMS/ SINGLE MAJOR PROGRAM AFTER 2nd SEMESTER OF MULTIDISCIPLINARY PROGRAM

Skill Enhancement Course (SEC)	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
SEMESTER I (2024-25)															
SEC 1 @ 3 credits	Fundamentals of Geospatial Techniques	24GEO401SE01			3	3			6	6			25	50	75
SEMESTER II (2024-25)															
SEC 2 @ 3 credits	Geospatial Data: Open Data Sources	24GEO402SE01			3	3			6	6			25	50	75
SEMESTER III (2025-26)															
SEC 3 @ 3 credits	Land use Planning	25GEO403SE01			3	3			6	6			25	50	75
SEMESTER VI (2026-27)															
SEC 4 @ 2 credits (offered only in case of Single Major Programme)	Resource Conservation and Management	26GEO406SE01			2	2			4	4			15	35	50
SEMESTER VII (2027-28)															
SEC 5 @ 4 credits (if offered as an option)	Topographical Sheets and Morphometric Analysis	24GEO201SE01			4	4			8	8			30	70	100

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 Jee Anand Singh
 Dr. Jitendra Kumar
 Sonu Singh
 Nishant Singh

Syllabi and S.O.E. for Skill Enhancement Course(s) for UG Programs w.e.f. 2024-25 session

SEMESTER VIII (2027-28)															
SEC 6 @ 4 credits (if offered as an option)	Computer Aided Statistical Diagrams and Digital Cartography	24GEO202SE01			4	4			8	8			30	70	100

L: Lecture; T: Tutorial; P: Practical

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Satini B Jac Plus D Jaleb Sonis & Vin Mehta Singh 8/6/24

Syllabi for Geography Course

Semester- I

Session: 2024-25

Name of Program	Skill Enhancement Course	Program Code	
Name of the Course	Fundamentals of Geospatial Techniques (Practical)	Course Code	24GEO401SE01
Hours per Week	6	Credits	3
Maximum Marks: 75	Internal Assessment (Max. Marks: 25) Attendance: 05 Practical Assignments/ Practical File:20	End Semester Examination (Max. Marks: 50) Lab Test: 30 Practical Record: 10 Viva-voce: 10	Time of Examinations: 03 Hours
Note: At least twelve exercises are to be prepared from all the units covering entire syllabus. In the examination, the lab test shall comprise of six questions in all with at least one question from each unit. The candidate has to attempt three questions, selecting only one question from a unit.			
Course Learning Outcomes (CLO):			
CLO 1: To acquire a conceptual background of the concepts of Remote Sensing and GIS.			
CLO 2: To have a systematic knowledge of new techniques in geography.			
CLO 3: To have a basic understanding of current issues related to geospatial technology.			
Unit 1:			
Geometric elements of aerial photographs; stereoscopy; stereoscopic vision (pocket stereoscope, mirror stereoscope); making stereograms; fundamentals of aerial photo interpretation: elements of visual air photo interpretation.			
Unit 2:			
Comparison between aerial photograph and satellite image; scale determination on vertical aerial photograph; identification and mapping of physical and cultural features on an image (two exercises each).			
Unit 3:			
Introduction to GIS – definition and concept; hardware and software requirements for GIS; creating basic layers in GIS (point, line and polygon) with any GIS software/manual.			
References:			
<ul style="list-style-type: none"> • Jensen, John R. (2013) Remote Sensing of the Environment: An Earth Resource Perspective. Pearson Education (Second Edition), Pearson Education India. • Lillesand, T. M. and Kieffer, R. M. (1987) Remote Sensing and Image Interpretation, John Wiley. • Siddiqui, M. A. (2011) Concepts and Techniques of Geoinformatics, Sharda Pustak Bhavan, Allahabad. • Rampal, K. K. (1999) Handbook of Aerial Photography and Interpretation, Concept Publishing Company, New Delhi • Chaunial, D. D. (2004) Remote Sensing and Geographical Information System Sharda Pustak Bhawan, Allahabad. • Kannan, M. and Yadav, S. (2022) Practical Geography, Rawat Publications, Jaipur. 			

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Syllabi and S.O.E. for Skill Enhancement Course(s) for UG Programs w.e.f. 2024-25 session
Semester- II

Session: 2024-25

Name of Program	Skill Enhancement Course	Program Code	
Name of the Course	Geospatial Data: Open Data Sources	Course Code	24GEO402SE01
Hours per Week	6	Credits	3
Maximum Marks: 75	Internal Assessment (Max. Marks: 25) Attendance: 05 Practical Assignments/ Practical File:20	End Semester Examination (Max. Marks:50) Lab Test: 30 Practical Record: 10 Viva-voce: 10	Time of Examinations: 03 Hours
Note: At least twelve exercises are to be prepared from all the units covering entire syllabus. In the examination, the lab test shall comprise of six questions in all with at least one question from each unit. The candidate has to attempt three questions, selecting only one question from a unit.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual background of open source of geospatial data. CLO 2: To have a systematic knowledge of new techniques. CLO 3: To have a basic understanding of ideas and current issues related to geospatial technology.			
Unit 1: Geospatial data: definition and concept; types of geospatial data: vector and raster; sources of open data: Bhuwan, USGS/GLCF, Google earth engine; Survey of India toposheets and its nomenclature.			
Unit 2: Obtaining open data from Bhuwan, USGS/GLCF, Google earth engine and Survey of India toposheets.			
Unit 3: Application of open source data: mapping of land use/land cover and change (built-up area, water bodies, agricultural land and natural vegetation).			
References:			
<ul style="list-style-type: none"> • Neteler, M. and Mitasova, H. (2008) Open-source GIS: A GRASS GIS approach, 3rd edn. Springer, New York. • Kropla, B. (2005) Map Server: Open-Source GIS Development, Apress (Springer Verlag) New York. • McNerney, D. and Kempeneers, P. (2015) Open-Source Geospatial Tools: Applications in Earth Observation, Springer International Publishing Switzerland 2015 • Saha, K. and Froyen, Y. K. (2022) Learning GIS Using Open Source Software An Applied Guide for Geo-spatial Analysis, Routledge, England, UK. • Kannan, M. and Yadav, S. (2022) Practical Geography, Rawat Publications, Jaipur. 			

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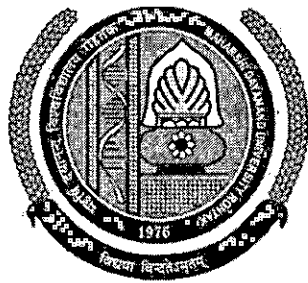
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Annexure XI

Syllabi and S.O.E. for Under Graduate Single Major Program(s) w.e.f. 2024-25 session

**SYLLABI AND SCHEME OF
EXAMINATIONS
FOR
DISCIPLINE SPECIFIC COURSES
OF SINGLE MAJOR PROGRAMS
B.A./B.Sc (Geography)
(Based on Curriculum and Credit Framework for UG Programs under NEP)**



**WITH EFFECT FROM
THE
SESSION 2024-25**

**MAHARSHI DAYANAND UNIVERSITY
ROHTAK (HARYANA)**

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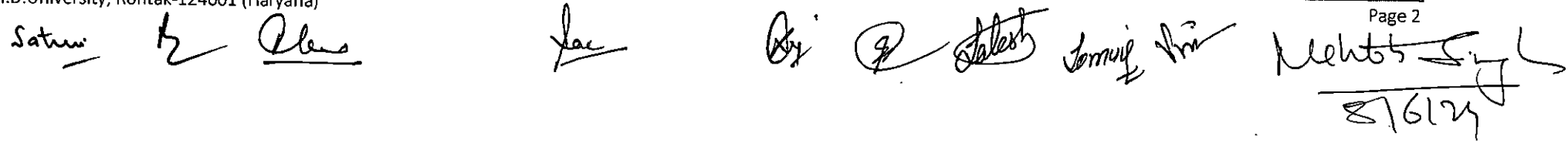
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Syllabi and S.O.E. for Under Graduate Single Major Program(s) w.e.f. 2024-25 session
Credit Structure for Undergraduate Programmes (Single Major)

Semester	Discipline-Specific Courses (DSC) / Major Course	Minor (MIC)/ Vocational (VOC)/ Skill Enhancement Courses (SEC)/ Internship	Multidisciplinary courses (MDC)	Ability Enhancement courses (AEC)	Dissertation	Value-Added Courses (VAC)	Total Credits
I	DSC - A1 @ 4 credits	MIC1 @ 4 credits	MDC1 @ 3 credits	AEC1 @ 2 credits	_____	VAC1 @ 2 credits	22
	DSC - A2 @ 4 credits	SEC1 @ 3 credits					
II	DSC - A3 @ 4 credits	MIC2 @ 4 credits	MDC2 @ 3 credits	AEC2 @ 2 credits	_____	VAC2 @ 2 credits	22
	DSC - A4 @ 4 credits	SEC2 @ 3 credits					
Students exiting the programme after second semester and securing 48 credits including 4 credits of summer internship will be awarded UG Certificate in the relevant Discipline/Subject							
III	DSC - A5 @ 4 credits	MIC3 @ 4 credits	MDC3 @ 3 credits	AEC3 @ 2 credits	_____	VAC3 @ 2 credits	22
	DSC - A6 @ 4 credits	SEC3 @ 3 credits					
IV	DSC - A7 @ 4 credits	MIC4(VOC) @ 4 credits	_____	AEC4 @ 2 credits	_____	VAC4 @ 2 credits	24
	DSC - A8 @ 4 credits						
	DSC - A9 @ 4 credits						
	DSC - A10 @ 4 credits						
Students exiting the programme after fourth semester and securing 94 credits including 4 credits of summer internship will be awarded UG Diploma in the relevant Discipline/Subject							
V	DSC - A11 @ 4 credits	MIC5(VOC) @ 4 credits	_____	_____	_____	_____	24
	DSC - A12 @ 4 credits	Internship @ 4 credits#					
	DSC - A13 @ 4 credits						
	DSC - A14 @ 4 credits						
VI	DSC - A15 @ 4 credits	MIC6(VOC) @ 4 credits	_____	_____	_____	_____	22
	DSC - A16 @ 4 credits	SEC3 @ 2 credits					
	DSC - A17 @ 4 credits						
	DSC - A18 @ 4 credits						
Students will be awarded 3-year UG Degree in relevant major Discipline/Subject upon securing 136 credits.							
VII	DSC - H1 @ 4 credits	SEC4 @ 4 credits	_____	_____	_____	_____	24
	DSC - H2 @ 4 credits	OR					
	DSC - H3 @ 4 credits	MIC7 (VOC) @ 4 credits					
	DSC - H4 @ 4 credits	OR					
	DSC - H5 @ 4 credits	Internship @ 4 credits					
VIII (4yr UG Hon.)	DSC - H6 @ 4 credits	SEC5 @ 4 credits	_____	_____	_____	_____	24
	DSC - H7 @ 4 credits	OR					
	DSC - H8 @ 4 credits	MIC8 (VOC) @ 4 credits OR					
	DSC - H9 @ 4 credits	Internship @ 4 credits					
	DSC - H10 @ 4 credits						
VIII (4yr UG Hon. with Research)	DSC - H6 @ 4 credits	SEC5 @ 4 credits	_____	_____	Research project/ Dissertation @ 12 credits	_____	24
	DSC - H7 @ 4 credits	MIC8 (VOC) @ 4 credits OR Internship @ 4 credits					TOTAL CREDITS

Note:#Four credits of internship earned by a student during summer internship after 2nd semester or 4th semester will be counted in 5th semester of a student who pursue 3 year UG Programmes without taking exit option.

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Syllabi and S.O.E. for Under Graduate Single Major Program(s) w.e.f. 2024-25 session

Discipline Specific Courses/ Major Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester I (Session 2024-25)															
DSC - A1 @ 4 credits	Fundamentals of Geomorphology	24GEOS401DS01	4				4			4	30	70			100
DSC - A2 @ 4 credits	Introduction to Cartography (Practical)	24GEOS401DS02			4				8	8			30	70	100
Semester II (Session 2024-25)															
DSC - A3 @ 4 credits	Fundamentals of Human Geography	24GEOS402DS01	4				4			4	30	70			100
DSC - A4 @ 4 credits	Principles of Thematic Mapping and Land Surveying (Practical)	24GEOS402DS02			4				8	8			30	70	100
Semester III (Session 2025-26)															
DSC - A5 @ 4 credits	Fundamentals of Climatology	25GEOS403DS01	4				4			4	30	70			100
DSC - A6 @ 4 credits	Representation of Climatic Data (Practical)	25GEOS403DS02			4				8	8			30	70	100
Semester IV (Session 2025-26)															
DSC - A7 @ 4 credits	World Regional Geography	25GEOS404DS01	4				4			4	30	70			100
DSC - A8 @ 4 credits	Introduction to Geography of India	25GEOS404DS02	4				4			4	30	70			100
DSC - A9 @ 4 credits	Oceanography	25GEOS404DS03	4				4			4	30	70			100

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Syllabi and S.O.E. for Under Graduate Single Major Program(s) w.e.f. 2024-25 session

DSC – A10 @ 4 credits	Map Projections (Practical)	25GEOS404DS04			4				8	8			30	70	100		
Semester V (Session 2026-27)																	
DSC – A11 @ 4 credits	Population Geography	26GEOS405DS01	4				4			4			30	70	100		
DSC – A12 @ 4 credits	Economic Geography	26GEOS405DS02	4				4			4			30	70	100		
DSC – A13 @ 4 credits	Geography of Haryana	26GEOS405DS03	4				4			4			30	70	100		
DSC – A14 @ 4 credits	Surveying Methods and Field Oriented Report (Practical)	26GEOS405DS04			4				8	8			30	70	100		
Semester VI (Session 2026-27)																	
DSC – A15 @ 4 credits	Remote Sensing and GIS	26GEOS406DS01	4				4			4			30	70	100		
DSC – A16 @ 4 credits	Environment and Climate Change	26GEOS406DS02	4				4			4			30	70	100		
DSC – A17 @ 4 credits	Disaster Management in India	26GEOS406DS03	4				4			4			30	70	100		
DSC – A18 @ 4 credits	Aerial Photograph and Image Interpretation (Practical)	26GEOS406DS04			4				8	8			30	70	100		
Semester VII (Session 2027-28)																	
DSC – H1 @ 4 credits	Foundations in Geography	24GEO201DS01	4	0	0	4		4	0	0	4		30	70	0	0	100
DSC – H1 @ 4 credits	Geomorphology	24GEO201DS02	4	0	0	4		4	0	0	4		30	70	0	0	100
DSC – H2 @ 4 credits	Climatology	24GEO201DS03	4	0	0	4		4	0	0	4		30	70	0	0	100

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Syllabi and S.O.E. for Under Graduate Single Major Program(s) w.e.f. 2024-25 session

DSC – H3 @ 4 credits	Resource Geography	24GEO201DS04	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC – H4 @ 4 credits	Statistical Methods in Geography	24GEO201DS05	4	0	0	4	4	0	0	4	30	70	0	0	100
SEC1/VAC1/Internship1 @ 4 credits	Topographical Sheets and Morphometric Analysis	24GEO201SE01	0	0	4	4	-	-	-	-	-	-	30	70	100
*1 Credit (2 Contact Hours) for Project Work															
Semester VIII (Session 2027-28)															
DSC – H6 @ 4 credits	Geography of World Economy	24GEO202DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC – H7 @ 4 credits	Regional Development and Planning	24GEO202DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC – H8 @ 4 credits	Environmental Geography	24GEO202DS03	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC – H9 @ 4 credits	Fundamentals of Cartography	24GEO202DS04	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC – H10 @ 4 credits	(i)Geography of India/ (ii)Cultural Geography/ Urban Geography	24GEO202DS05/ 24GEO202DS06/ 24GEO202DS07	4	0	0	4	4	0	0	4	30	70	0	0	100
SEC2/VAC2/Internship2 @ 4 credits	Computer Aided Statistical Diagrams and Digital Cartography	24GEO202SE01	0	0	4	4	-	-	-	-	-	-	30	70	100

*1 Credit (2 Contact Hours) for Project Work

L: Lecture; T: Tutorial; P: Practical/Project Work

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Syllabi for Under Graduate Programme in Geography

Semester- I

Session: 2024-25

Name of Program	Under Graduate Single Major Program	Program Code	USGE04
Name of the Course	Fundamentals of Geomorphology	Course Code	24GEOS401DS01
Hours per Week	4	Credits	4
Maximum Marks: 100	Internal Assessment (Max. Marks:30) Attendance:05 Assignment/Presentations/Seminars and Class Participation:05 Sessional Examinations:20	End Semester Examination (Max. Marks:70)	Time of Examinations: 3 Hours
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing short answer type questions from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual background of the concepts of geomorphology. CLO 2: To have a systematic knowledge of geomorphic processes. CLO 3: To have a base of wide range of ideas and current issues related to physical environment.			
Unit 1: Nature, scope and branches of Geography; meaning and nature of geomorphology; fundamental concepts of geomorphology; plate-tectonics; theory of isostasy: Pratt and Airy; geological time scale.			
Unit 2: The earth's interior; endogenetic forces: fold, fault and associated topography; volcanism and earthquake.			
Unit 3: Exogenetic forces: weathering, erosion and mass wasting; cycle of erosion: Davis and Penck; work of river, wind, glacier, sea wave and underground water and their associated features.			
Unit 4: Application of geomorphology to hydrology, economic activities, resource exploration, military action, highway construction, dam site selection.			
References: <ul style="list-style-type: none"> • Savindra, S. (2004) Geomorphology, Prayag, Pustak Bhavan, Allahabad. • Thornbury, W. (1990) Principles of Geomorphology, Willy, New Delhi. • Enayat A. (1982) Physical Geography, Kalyani Publishers, Ludhiana. • Bloom A L (1992) Geomorphology, Prentice Hall of India, New Delhi. • Wooldridge, S.W. and Morgan. R. S. (1959) An Outline of Geomorphology, Orient Longmans, London. • Savindra, S. (2000) Bhuakriti Vigyan, Prayag, Pustak Bhavan, Allahabad. • Jat, B. C. (2017) Bhuakriti Vigyan, Rawat Publications, Jaipur. 			

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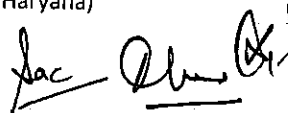


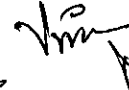

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Syllabi and S.O.E. for Under Graduate Single Major Program(s) w.e.f. 2024-25 session

Semester- I

Session: 2024-25

Name of Program	Under Graduate Single Major Program	Program Code	USGE04
Name of the Course	Introduction to Cartography (Practical)	Course Code	24GEOS401DS02
Hours per Week	8	Credits	4
Maximum Marks: 100	Internal Assessment (Max. Marks:30) Attendance: 05 Practical Assignments/ Practical File:25	End Semester Examination (Max. Marks: 70) Lab Test: 42 Practical Record: 14 Viva-voce: 14	Time of Examinations: 3 Hours
Note: At least fifteen exercises are to be prepared from all the units covering entire syllabus. In the examination, the lab test shall comprise of six questions in all with at least one question from each unit. The candidate has to attempt three questions, selecting only one question from a unit.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual background of the concepts of land surveying. CLO 2: To have a fair understanding of mapping in geography. CLO 3: To acquire a comprehensive knowledge and future scope of specialization in the course.			
Unit 1: Nature, subject matter and historical development of cartography; basic concepts of cartography; historical development, classification and applications of maps.			
Unit 2: Elements of map: title, direction, index, conventional signs and symbols (Point, line and polygon), scale, latitudes and longitudes.			
Unit 3: Map scales: statement scale, representative fraction and graphical scale (plain scale, comparative scale, time scale, pace scale and diagonal scale).			
Unit 4: Representation of relief: contours, hachures, form lines, spot heights, bench marks and trigonometrical stations.			
References: <ul style="list-style-type: none"> • Singh, L. R. (2016) Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad. • Sarkar, A. (2015) Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd., New Delhi. • Kannan, M. and Yadav, S. (2022) Practical Geography, Rawat Publications, Jaipur. • Singh, G. (2012) Map Work and Practical Geography, Vikas Publishing, New Delhi. • Robinson, A. H. et. al., (1995) Elements of Cartography, John Wiley, New York. • Singh, R. L. (1991) Elements of Practical Geography, Kalyani, New Delhi. • Sharma, J.P. (2016) Prayogik Bhugol, Rastogi Publications, Meerut. 			

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Syllabi and S.O.E. for Under Graduate Single Major Program(s) w.e.f. 2024-25 session

Semester- II

Session: 2024-25

Name of Program	Under Graduate Single Major Program	Program Code	USGE04
Name of the Course	Fundamentals of Human Geography	Course Code	24GEOS402DS01
Hours per Week	4	Credits	4
Maximum Marks: 100	Internal Assessment (Max. Marks:30) Attendance:05 Assignment/Presentations/Seminars and Class Participation:05 Sessional Examinations:20	End Semester Examination (Max. Marks:70)	Time of Examinations: 3 Hours
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing short answer type questions from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual background of the concepts of human geography. CLO 2: To have a systematic knowledge of mankind. CLO 3: To have a base of wide range of ideas and current issues related to demographic attributes.			
Unit 1: Meaning, nature and scope of human geography; approaches to study human geography; man-environment relations: determinism, possibilism, neo-determinism, human-ecology and recent perspectives.			
Unit 2: Evolution of mankind: hunting & food gathering, pastoral nomadism, subsistence farming, industrial societies; human adaptation to environment: Eskimo and Bushman; primitive people of India: Bhil and Naga; racial classification: Griffith Taylor and B.S. Guha.			
Unit 3: Demographic attributes: composition, growth and distribution; major human agglomerations; human economic activities: types and transformation; human migration: causes, types and trends.			
Unit 4: Human settlements: types, distribution and affecting factors; dynamics of population resource relationship; population resource regions (Ackerman); development and environment conflicts.			
Recommended Readings: <ul style="list-style-type: none"> Chandna, R.C. (2022) Geography of population, part-I, concepts determinants and world patterns, Kalyani Publisher, New Delhi. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad. Hussain, M. (2012) Manav Bhugol, Rawat Publications, Jaipur Hussain, M. (2018) Human Geography, Rawat Publications, Jaipur. Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007) Human Geography: Landscapes of Human Activities. McGraw-Hill. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009) The Dictionary of Human Geography, 5th edition, Basil Blackwell Publishers, Oxford. 			

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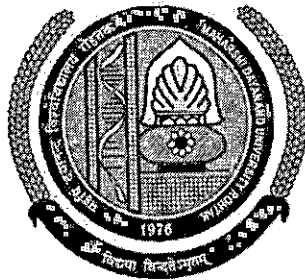
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UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session

**SYLLABI AND SCHEME OF
EXAMINATIONS
FOR
DISCIPLINE SPECIFIC COURSES OF
MULTIDISCIPLINARY PROGRAMS WITH
HONS. IN ONE MAJOR DISCIPLINE
B.A. (Multidisciplinary) with Hons. in
Geography**

(Based on Curriculum and Credit Framework for UG Programs under NEP)



**WITH EFFECT FROM
THE
SESSION 2024-25**

**MAHARSHI DAYANAND UNIVERSITY
ROHTAK (HARYANA)**

Nehal Singh
8/10/24

UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session

Credit Structure for Undergraduate Programmes (Multidisciplinary with Hons. in One Major Discipline)

Semester	Discipline-Specific Courses (DSC) / Major courses	Minor (MIC) / Vocational (VOC) / Skill Enhancement Courses (SEC) / Internship	Multidisciplinary courses (MDC)	Ability Enhancement courses (AEC)	Research project/ Dissertation	Value-Added Courses (VAC)	Total Credits
I	DSC - A1 @ 4 credits	MIC1 @ 4 credits	MDC1 @ 3 credits	AEC1 @ 2 credits	_____	_____	24
	DSC - B1 @ 4 credits	SEC1 @ 3 credits**					
	DSC - C1 @ 4 credits						
II	DSC - A2 @ 4 credits	SEC2 @ 3 credits**	MDC2 @ 3 credits	AEC2 @ 2 credits	_____	VAC1 @ 2 credits VAC2 @ 2 credits	24
	DSC - B2 @ 4 credits						
	DSC - C2 @ 4 credits						
Students exiting the programme after second semester and securing 52 credits including 4 credits of summer internship will be awarded UG Certificate in the relevant Discipline/Subject							
III	DSC - A3 @ 4 credits	MIC2 @ 4 credits	MDC3 @ 3 credits	AEC3 @ 2 credits	_____	_____	24
	DSC - B3 @ 4 credits	SEC3 @ 3 credits**					
	DSC - C3 @ 4 credits						
IV	DSC - A4 @ 4 credits	MIC3(VOC) @ 4 credits	_____	AEC4 @ 2 credits	_____	VAC3 @ 2 credits	20
	DSC - B4 @ 4 credits						
	DSC - C4 @ 4 credits						
Students exiting the programme after fourth semester and securing 96 credits including 4 credits of summer internship will be awarded UG Diploma in the relevant Discipline/Subject							
V	DSC - A5 @ 4 credits	MIC4(VOC) @ 4 credits	_____	_____	_____	_____	20
	DSC - B5 @ 4 credits	Internship @ 4 credits#					
	DSC - C5 @ 4 credits						
VI	DSC - A6 @ 4 credits	MIC5 @ 4 credits	_____	_____	_____	_____	20
	DSC - B6 @ 4 credits	MIC6(VOC) @ 4 credits					
	DSC - C6 @ 4 credits						
Students will be awarded 3-year UG Degree in the relevant Discipline/Subject upon securing 132 credits.							
VII*	DSC - H1 @ 4 credits	SEC4 @ 4 credits OR MIC7 (VOC) @ 4 credits OR Internship @ 4 credits	_____	_____	_____	_____	24
	DSC - H2 @ 4 credits						
	DSC - H3 @ 4 credits						
	DSC - H4 @ 4 credits						
	DSC - H5 @ 4 credits						
VIII* (4yr UG Hon.)	DSC - H6 @ 4 credits	SEC5 @ 4 credits OR MIC8 (VOC) @ 4 credits OR Internship @ 4 credits	_____	_____	_____	_____	24
	DSC - H7 @ 4 credits						
	DSC - H8 @ 4 credits						
	DSC - H9 @ 4 credits						
	DSC - H10 @ 4 credits						
VIII* (4yr UG Hon. with Research)	DSC - H6 @ 4 credits	SEC5 @ 4 credits OR MIC8 (VOC) @ 4 credits OR Internship @ 4 credits	_____	_____	Research project/ Dissertation @ 12 credits	_____	24
	DSC - H7 @ 4 credits						

						TOTAL CREDITS	180

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* Student should select one major discipline (Out of A, B, or C studied during first three years of UG Programmes) in which he/she wishes to pursue Honors. This framework is subject to modification as per UGC guidelines at the University level. The universities may decide to offer the Honors degree Programmes subject to the fulfillment of credit point table
 ** SEC for imparting practical skills related to Major (A, B and C)/minor.

Satwani B Sac Ober Singh Jaleel Sonu Singh Mehta Singh

UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session

#Four credits of internship earned by a student during summer internship after 2nd semester or 4th semester will be counted in 5th semester of a student who pursue 3 year UG Programmes without taking exit option.

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UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session

Semester I (Session 2024-25)															
Discipline Specific Courses/ Major Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
DSC @ 4 credits	Physical Geography & Introductory Cartography	24GEOM401DS01	2	0	2	4	2	0	4	6	15	35	15	35	100
Semester II (Session 2024-25)															
DSC @ 4 credits	Introduction to Human Geography & Principles of Thematic Cartography	24GEOM402DS01	2	0	2	4	2	0	4	6	15	35	15	35	100
Semester III (Session 2025-26)															
DSC @ 4 credits	Physical Geography-II & Analysis and Representation of Climatic Data	25GEOM403DS01	2	0	2	4	2	0	4	6	15	35	15	35	100
Semester IV (Session 2025-26)															
DSC @ 4 credits	Geography of Economic Activities &	25GEOM404DS01	2	0	2	4	2	0	4	6	15	35	15	35	100

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UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session

	Socio-economic Survey and Field Report														
Semester V (Session 2026-27)															
DSC @ 4 credits	Introductory Geography of India & Map Projections	26GEOM405DS01	2	0	2	4	2	0	4	6	15	35	15	35	100
Semester VI (Session 2026-27)															
DSC @ 4 credits	Principles of Remote sensing and GIS & Aerial Photograph and Image Interpretation	26GEOM406DS01	2	0	2	4	2	0	4	6	15	35	15	35	100

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L: Lecture; T: Tutorial; P: Practical

Note:

The Syllabi and Scheme of Examinations (SOE) for Discipline Specific Courses/Major Courses for UG Semester 7 and Semester 8 will be same as applicable for Syllabi and S.O.E. for Post Graduate semester 1 and semester 2 respectively.

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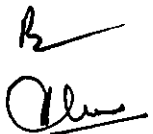






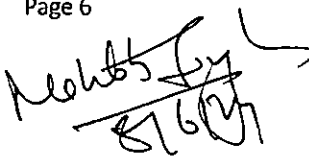
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Syllabi for Under Graduate Programme with Hons. in Geography

Semester- I

Session: 2024-25

Name of Program	UG Multidisciplinary Program(s) with Hons. in One Major Program	Program Code	UMBA4
Name of the Course	Physical Geography-I (Part- A) & Introductory Cartography (Practical) (Part- B)	Course Code	24GEOM401DS01
Physical Geography-I (Part- A)			
Hours per Week	02	Credits	02
Maximum Marks:50	Internal Assessment (Max. Marks:15) Attendance: 05 Sessional Examination:10	End Semester Examination (Max. Marks:35)	Time of Examinations: 03 Hours
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing short answer type questions from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual background of the concepts of physical geography. CLO 2: To have a systematic knowledge of earth movements. CLO 3: To have a base of wide range of ideas and current issues related to endogenetic forces and associated features.			
Unit 1: Nature and scope of physical geography; interior of the earth; characteristics and classification of rocks: igneous, sedimentary and metamorphic.			
Unit 2: Geomorphic processes (endogenetic and exogenetic forces); continental drift theory; sea floor spreading theory; plate-tectonic theory.			
Unit 3: Classification of landforms (first, second and third order); volcanoes; earthquakes (types, measurement and distribution).			
Unit 4: Denudational processes: weathering, erosion and mass wasting; the work of river and wind; cycle of erosion (Davis).			
References: <ul style="list-style-type: none"> • Dayal, P. (2019) Textbook of Geomorphology, Rajesh Publications. • Kale, V. and Gupta, A. (2001) Element of Geomorphology, Oxford University Press, Calcutta. • Monkhouse, F. J. (1960) Principles of Physical Geography, Hodder and Stoughton, London. • Singh, S. (1998) Geomorphology, Prayag Pustakalaya, Allahabad. • Strahler, A. N. and Strahler, A. H. (1992) Modern Physical Geography; John Wiley & sons, New York. • Thornbury, W.D. (1991) Principles of Geomorphology, Longman. 			

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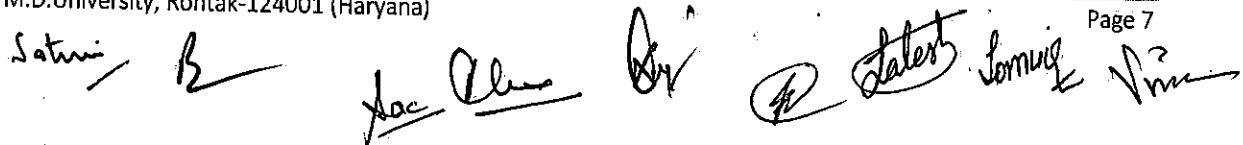
UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session

Semester- I

Session: 2024-25

Name of Program	UG Multidisciplinary Program(s) with Hons. in One Major Program	Program Code	UMBA 4
Name of the Course	Physical Geography-I (Part- A) & Introductory Cartography (Practical) (Part- B)	Course Code	24GEOM401DS01
Introductory Cartography (Practical) (Part- B)			
Hours per Week	04	Credits	02
Maximum Marks:50	Internal Assessment (Max. Marks:15) Attendance:05 Practical Assignments/Practical File:10	End Semester Examination (Max. Marks: 35) Lab Test: 21 Practical Record: 07 Viva-voce: 07	Time of Examinations: 03 Hours
Note: At least twelve exercises are to be prepared from all the units covering entire syllabus. In the examination, the lab test shall comprise of six questions in all with minimum one question from each unit. The candidate has to attempt three questions, selecting at least one question from a unit.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual background of the concepts of cartography. CLO 2: To have a systematic knowledge of surveying methods. CLO 3: To have a systematic knowledge of scale.			
Unit 1: Nature, subject matter and historical development of cartography; map design and cartographic techniques; visual hierarchy and legibility of map; classification of maps; elements of map: direction, index, conventional signs and symbols (point, line and area).			
Unit 2: Map scales: statement scale, representative fraction and graphical scale; representation of relief: contours, hachures, form lines, spot heights, bench marks and trigonometrical stations.			
References:			
<ul style="list-style-type: none"> • Mishra, R. P. and Ramesh, A. (1989) Fundamentals of Cartography, Concept, New Delhi. • Monkhouse, F. J. and Wilkinson, H. R. (1973) Maps and Diagrams, Methuen, London. • Sharma, J. P. (2010) Prayogic Bhugol, Rastogi Publishers, Meerut. • Singh, R. L. and Rana, P. B. Singh (1991) Prayogtmak Bhugol ke Mool Tatva, Kalyani Publishers, New Delhi. • Sharma, J. P. (2010) Prayogtmak Bhugol ki Rooprekha, Rastogi Publications, Meerut. • Kannan, M. and Yadav, S. (2022) Practical Geography, Rawat Publications, Jaipur. 			

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UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session
Semester- II

Session: 2024-25

Name of Program	UG Multidisciplinary Program(s) with Hons. in One Major Program	Program Code	UMBA 4
Name of the Course	Introduction to Human Geography (Part- A) & Principles of Thematic Cartography (Practical) (Part- B)	Course Code	24GEOM402DS01
Introduction to Human Geography (Part- A)			
Hours per Week	02	Credits	02
Maximum Marks:50	Internal Assessment (Max. Marks:15) Attendance: 05 Sessional Examination:10	End Semester Examination (Max. Marks:35)	Time of Examinations: 03 Hours
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing short answer type questions from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): CLO 1: To acquire a conceptual background of the concepts of human geography. CLO 2: To have a base of wide range of ideas and current issues related to demographic attributes. CLO 3: To acquire a comprehensive knowledge and future scope of specialization in the course.			
Unit 1: Human geography: meaning, nature and scope; changing man-environment relationship: determinism, possibilism, neo-determinism, human-ecology and recent perspectives; evolution of mankind: hunting & food gathering, pastoral nomadism, subsistence farming.			
Unit 2: Human adaptation to environment: Eskimo and Bushman; primitive people of India: Bhil and Naga; racial classification: Griffith Taylor and B.S. Guha.			
Unit 3: Demographic attributes: composition, growth and distribution; human migration: causes, types and trends; human settlements: types, distribution and affecting factors.			
Unit 4: Dynamics of population resource relationship; population resource regions (Ackerman); development and environment conflicts.			
References:			
<ul style="list-style-type: none"> • Chandna, R.C. (2022) Geography of population, part-I, concepts determinants and world patterns, Kalyani Publisher, New Delhi. • Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut. • Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad. • Hussain, M. (2012) Manav Bhugol, Rawat Publications, Jaipur • Hussain, M. (2018) Human Geography, Rawat Publications, Jaipur. • Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007) Human Geography: Landscapes of Human Activities. McGraw-Hill. • Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009) The Dictionary of Human Geography. 5th edition, Basil Blackwell.0 Publishers, Oxford. 			

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UG Multidisciplinary Program(s) with Hons. in One Major Program w.e.f. 2024-25 session
Semester- II

Session: 2024-25

Name of Program	UG Multidisciplinary Program(s) with Hons. in One Major Program	Program Code	UMBA4
Name of the Course	Introduction to Human Geography (Part- A) & Principles of Thematic Cartography (Practical) (Part- B)	Course Code	24GEOM402DS01
Principles of Thematic Cartography (Practical) (Part- B)			
Hours per Week	04	Credits	02
Maximum Marks:50	Internal Assessment (Max. Marks:15) Attendance:05 Practical Assignments/Practical File:10	End Semester Examination (Max. Marks: 35) Lab Test: 21 Practical Record: 07 Viva-voce: 07	Time of Examinations: 03 Hours
Note: At least twelve exercises are to be prepared from all the units covering entire syllabus. In the examination, the lab test shall comprise of six questions in all with at least one question from each unit. The candidate has to attempt three questions, selecting at least one question from a unit.			
Course Learning Outcomes (CLO): CLO 1: To have a systematic knowledge of surveying methods. CLO 2: To acquire a comprehensive knowledge of techniques of thematic data presentation. CLO 3: To have a systematic knowledge and presentation of geographical data.			
Unit 1: Cartography: an introduction; techniques in thematic data presentation: bar, line and circle diagram; techniques of thematic data presentation: climograph and hythergraph.			
Unit 2: Techniques of thematic mapping: choropleth, dot method, chorochromatic, choroschematic; interpolation method and isopleth mapping.			
References: <ul style="list-style-type: none"> • Singh, R. L. and Dutta, P. K. (2012) Prayogatama Bhugol, Central Book Depot, Allahabad. • Mishra, R. P. (2014) Fundamentals of Cartography, Concept Publishing Company, New Delhi. • Sharma, J.P. (2021) Prayogik Bhugol, Rastogi Publications, Meerut. • Singh, R. L. and Rana, P. B. Singh (in English & Hindi) (2020) Elements of Practical Geography, Kalyani Publishers, New Delhi. • Kannan, M. and Yadav, S. (2022) Practical Geography, Rawat Publications, Jaipur. • Singh, L.R. (In English & Hindi) (2006) Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad. • Tyner, J. A. (2010) Principles of Map Design, The Guilford Press. 			

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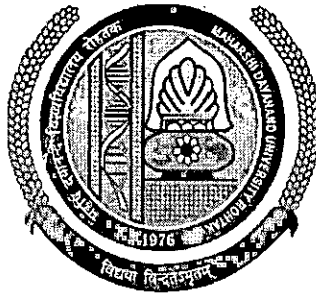
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Syllabi and S.O.E. for Post Graduate Program w.e.f. 2024-25 session

SYLLABI AND SCHEME OF EXAMINATIONS FOR M.A. (Geography)

Anusara XIII

(Based on Curriculum and Credit Framework for PG Programs under NEP)



WITH EFFECT FROM
THE
SESSION 2024-25

MAHARSHI DAYANAND UNIVERSITY
ROHTAK (HARYANA)

Signature: *Latnas*
Signature: *Xac*
Signature: *Abus*
Signature: *Mehta*
Date: 5/6/23

Only Research (only for the students who have completed 3 Years Bachelor's Program)					
	Semester	Discipline-Specific Courses (DSC)	Skill Enhancement Courses (SEC) / Vocational Courses (VOC) / Internship	Research thesis/project	Total Credits
Option 3	III	--	SEC3/Internship 3 @ 4 credits	20 credits*	24
	IV	--	SEC4/Internship 4 @ 4 credits	20 credits**	24

Note:

*The students who opted Option 3 should submit a project report/synopsis of atleast 50 pages comprising of Literature survey, identification of Research Problem, Plan of work, methodology as well as practical work (if any) at the end of 3rd semester and the same will be evaluated by internal and external examiners.

**The students should continue the research work in 4th semester based on the project work/synopsis submitted at the end of 3rd semester. The final thesis/project report will be evaluated by the internal and external examiners.

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Syllabi and S.O.E. for Post Graduate Program w.e.f. 2024-25 session
 Structure for 1 year Post Graduate Programme (2nd year of 2 Year PG Program)

	Semester	Discipline-Specific Courses (DSC)	Skill Enhancement Courses (SEC) / Vocational Courses (VOC)/Internship	Dissertation/ Project work	Total Credits
(STUDENT SHOULD SELECT ANY ONE OPTION)					
Only Course Work					
Option 1	I (Semester III of 2 year PG Program)	DSC 11 @ 4 credits	SEC 3/Internship 3/ Project Work 1 @ 4 credits	---	24
		DSC 12 @ 4 credits			
		DSC 13 @ 4 credits			
		DSC 14 @ 4 credits			
		DSC 15 @ 4 credits			
	II (Semester III of 2 year PG Program)	DSC 16 @ 4 credits	SEC4/Internship 4/ Project Work 2 @ 4 credits	---	24
		DSC 17 @ 4 credits			
		DSC18 @ 4 credits			
		DSC19 @ 4 credits			
		DSC20 @ 4 credits			
Course work and Research					
Option 2	I (Semester III of 2 year PG Program)	DSC 11 @ 4 credits	SEC 3/Internship 3 @ 4 credits	---	24
		DSC 12 @ 4 credits			
		DSC 13 @ 4 credits			
		DSC 14 @ 4 credits			
		DSC 15 @ 4 credits			
	II (Semester III of 2 year PG Program)	--	SEC4/Internship 4 @ 4 credits	Dissertation/ Project work @ 20 credits	24

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Structure for 2 year Post Graduate Programme

Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester I (Session 2024-25)															
DSC 1 @ 4 credits	Foundations in Geography	24GEO201DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 2 @ 4 credits	Geomorphology	24GEO201DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 3 @ 4 credits	Climatology	24GEO201DS03	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 4 @ 4 credits	Resource Geography	24GEO201DS04	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 5 @ 4 credits	Statistical Methods in Geography	24GEO201DS05	4	0	0	4	4	0	0	4	30	70	0	0	100
SEC1/VOC 1/ Internship 1 @ 4 credits	Topographical Sheets and Morphometric Analysis	24GEO201SE01	0	0	4	4	-	-	8x4	32	-	-	30	70	100

L: Lecture; T: Tutorial; P: Practical

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Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester II (Session 2024-25)															
DSC 6 @ 4 credits	Geography of World Economy	24GEO202DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 7 @ 4 credits	Regional Development and Planning	24GEO202DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 8 @ 4 credits	Environmental Geography	24GEO202DS03	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 9 @ 4 credits	Fundamentals of Cartography	24GEO202DS04	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 10 @ 4credits	Geography of India	24GEO202DS05	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
	Or Cultural Geography	24GEO202DS06													
	Or Urban Geography	24GEO202DS07													
SEC2/VOC2/ Internship 2 @ 4 credits	Computer Aided Statistical Diagrams and Digital Cartography	24GEO202SE01	0	0	4	4	0		8x4	32	0	0	30	70	100

L: Lecture; T: Tutorial; P: Practical

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Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester III (Session 2025-26) OPTION 1															
DSC 11 @ 4 credits	Remote Sensing	25GEO203DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 12 @ 4 credits	Geographic Information System	25GEO203DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 13 @ 4 credits	Population Geography Or Political Geography Or Administrative Geography	25GEO203DS03 Or 25GEO203DS04 Or 25GEO203DS05	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
DSC 14 @ 4 credits	Biogeography Or Geography of Tourism Or Geography of Transport	25GEO203DS06 Or 25GEO203DS07 Or 25GEO203DS08	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
DSC 15 @ 4 credits	Hydrology Or Oceanography Or Social Geography	25GEO203DS09 Or 25GEO203DS10 Or 25GEO203DS11	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
SEC 3/Internship 3/ Project Work 1 @ 4 credits	Photogrammetry, Remote Sensing & GIS	25GEO203SE01	0	0	4	4	0		8x4	32	0	0	30	70	100

L: Lecture; T: Tutorial; P: Practical

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Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester IV (Session 2025-26) OPTION 1															
DSC 16 @ 4 credits	Geographical Thought	25GEO204DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 17 @ 4 credits	Research Methodology	25GEO204DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC18 @ 4 credits	Natural Hazards and Disaster Management	25GEO204DS03	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC19 @ 4 credits	Geography of Development Or Water Resource and Management Or Geography of Rural Settlement	25GEO204DS04 Or 25GEO204DS05 Or 25GEO204DS06	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
DSC20 @ 4 credits	Agricultural Geography Or Soil Geography Or Rural Geography	25GEO204DS07 Or 25GEO204DS08 Or 25GEO204DS09	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
SEC4/Internship 4/ Project Work 2 @ 4 credits	Fieldwork and Report Writing	25GEO204SE01	0	0	4	4	0		8x4	32	0	0	30	70	100

L: Lecture; T: Tutorial; P: Practical

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Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester III (Session 2025-26) OPTION 2															
DSC 11 @ 4 credits	Remote Sensing	25GEO203DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 12 @ 4 credits	Geographic Information System	25GEO203DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 13 @ 4 credits	Population Geography	25GEO203DS03	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
	Or Political Geography	25GEO203DS04													
	Or Administrative Geography	25GEO203DS05													
DSC 14 @ 4 credits	Biogeography	25GEO203DS06	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
	Or Geography of Tourism	25GEO203DS07													
	Or Geography of Transport	25GEO203DS08													
DSC 15 @ 4 credits	Hydrology	25GEO203DS09	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
	Or Oceanography	25GEO203DS10													
	Or Social Geography	25GEO203DS11													
SEC 3/Internship 3/ Project Work 1 @ 4 credits	Photogrammetry, Remote Sensing & GIS	25GEO203SE01	0	0	4	4	0		8	8	0	0	30	70	100

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Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester IV (Session 2025-26) OPTION 2															
SEC4/ Internship 4 @ 4 credits	Fieldwork and Report Writing	25GEO204SE01	0	0	4	4	0	0	8	8	0	0	30	70	100
Research thesis/ project @20 credits			0	0	0	20	0	0	0	-	0	0	150	350	500

L: Lecture; T: Tutorial; P: Practical

Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester III (Session 2025-26) OPTION 3															
SEC4/ Internship 4 @ 4 credits	Photogrammetry, Remote Sensing & GIS	25GEO203SE01	0	0	4	4	0		8	8	0	0	30	70	100
Research thesis/ project @20 credits			0	0	0	20	0	0	0	-	0	0	150	350	500
Semester IV (Session 2025-26)															
SEC4/ Internship 4 @ 4 credits	Fieldwork and Report Writing	25GEO204SE01	0	0	4	4	0		8	8	0	0	30	70	100
Research thesis/ project @20 credits			0	0	0	20	0	0	0	-	0	0	150	350	500

L: Lecture; T: Tutorial; P: Practical

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Structure for 1 year Post Graduate Programme (2nd year of 2 Year PG Program)

Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester III (Session 2025-26) OPTION 1															
DSC 11 @ 4 credits	Remote Sensing	25GEO203DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 12 @ 4 credits	Geographic Information System	25GEO203DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 13 @ 4 credits	Population Geography Or Political Geography Or Administrative Geography	25GEO203DS03 Or 25GEO203DS04 Or 25GEO203DS05	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
DSC 14 @ 4 credits	Biogeography Or Geography of Tourism Or Geography of Transport	25GEO203DS06 Or 25GEO203DS07 Or 25GEO203DS08	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
DSC 15 @ 4 credits	Hydrology Or Oceanography Or Social Geography	25GEO203DS09 Or 25GEO203DS10 Or 25GEO203DS11	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
SEC 3/Internship 3/ Project Work 1 @ 4 credits	Photogrammetry, Remote Sensing & GIS	25GEO203SE01	0	0	4	4	0	8	8	0	0	30	70	100	

L: Lecture; T: Tutorial; P: Practical

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Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester IV (Session 2025-26) OPTION 1															
DSC 16 @ 4 credits	Geographical Thought	25GEO204DS01	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC 17 @ 4 credits	Research Methodology	25GEO204DS02	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC18 @ 4 credits	Natural Hazards and Disaster Management	25GEO204DS03	4	0	0	4	4	0	0	4	30	70	0	0	100
DSC19 @ 4 credits	Geography of Development. Or Water Resource and Management Or Geography of Rural Settlement	25GEO204DS04 Or 25GEO204DS05 Or 25GEO204DS06	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
DSC20 @ 4 credits	Agricultural Geography Or Soil Geography Or Rural Geography	25GEO204DS07 Or 25GEO204DS08 Or 25GEO204DS09	4	0	0	4	4	0	0	4x3=12	30	70	0	0	100
SEC4/Internship 4/ Project Work 2 @ 4 credits	Fieldwork and Report Writing	25GEO204SE01	0	0	4	4	0		8	8	0	0	30	70	100

L: Lecture; T: Tutorial; P: Practical / Project Work

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Type of Course	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload (in hours)	Marks				Total Marks
			L	T	P		L	T	P		Theory		Practical		
											Internal	External	Internal	External	
Semester IV (Session 2025-26) OPTION 2															
SEC4/ Internship 4 @ 4 credits	Fieldwork and Report Writing	25GEO204SE01	0	0	4	4	0		8	8	0	0	30	70	100
Research thesis/ project @20 credits			0	0	0	20	0	0	0	-	0	0	150	350	500

L: Lecture; T: Tutorial; P: Practical

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Syllabi for Post Graduate Program in Geography

Semester – 1st

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Foundations in Geography	Course Code	24GEO201DS01
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: acquaint with the field, major concepts, themes and traditions in geography,

CLO 2: understand human-environment relationships.

CLO 3: have a knowledge of Landscape, Place, Space and Region.

Unit 1:

Definition, Nature, Scope and Relevance of Geography as a Discipline; Place of Geography in the Classification of Knowledge; Relations with Other Branches of Knowledge; Branches of Geography.

Unit 2:

Environmental Determinism and Possibilism; Environmentalism; Geography as Science of Relationships; Geography as Integrated Science.

Unit 3:

Geography as the study of Landscape, Natural & Cultural Landscapes, The Concept of Area, Space and Region, Genetic and Specific, Formal and Functional, Natural and Cultural Regions.

Unit 4:

Defining Space, Place and Locality; Absolute and Relative Space; Spatial Distribution and Spatial Organisation. Time in Geography; Spatial Relations; Spatial Diffusion.

References:

1. Aitken, S. C., & Valentine, G. (Eds.). (2006), Approaches to human geography: Philosophies, theories, people and practices. SAGE Publications.
2. Couper, P. (2014), A student's introduction to geographical thought: Theories, philosophies, methodologies. SAGE Publications.
3. Cresswell, T. (2013), Geographical thought: A critical introduction. Wiley-Blackwell.
4. Dikshit, R.D. (2022), The Art and Science of Geography, 2nd Ed. New Delhi: Phi Learning.
5. Dikshit, R. D. (2023), Geographical Thought. A Critical History of Ideas. 2nd Ed. New Delhi: Prentice-Hall of India.
6. Gregory, D., Johnston, R., Pratt, G., Watts, M. J., & Whatmore, S. (Eds.). (1981), The dictionary of human geography. Blackwell Publishers.
7. Hartshorne, R. (1939), The nature of geography: A critical survey of current thought in the light of the past. Association of American Geographers.
8. Harvey, D. (1969), Explanation in geography. Edward Arnold.
9. Johnston, R., & Sidaway, J. D. (2015), Geography and geographers: Anglo-American human geography since 1945 (7th ed.). Routledge.
10. Massey, D. (1994), Space, place, and gender. University of Minnesota Press.
11. Nayak, A. (2011), Geographical thought: An introduction to ideas in human geography. Pearson Education.
12. Peet, R. (1998), Modern geographic thought. Blackwell Publishers.

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Syllabi for Post Graduate Program in Geography

Semester – 1st

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geomorphology	Course Code	24GEO201DS02
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: explain the basic conceptual and dynamic concepts of landform development. CLO 2: understand the processes of landforms dynamics. CLO 3: understand the relevance of applied aspects of Geomorphology in various fields.			
Unit 1: Geomorphology - Nature and scope; History and development of geomorphic ideas: Fundamental concepts - Uniformitarian's, geological structure, process and stage; The Earth's interior - structure and constitution; Recent Views; Plate tectonics - meaning and concept; plates, plate margins and boundaries; plate motion; Tectonic activities along the boundaries and Distribution of plates.			
Unit 2: Endogenetic processes - Faulting, folding and their geomorphic expressions; earthquake concept, causes, classification, intensity and magnitude, Geographical distribution; Vulcanism - concept, mechanism and causes; Volcanoes - classification, volcanic materials; Topography associated with vulcanicity and geographical distribution.			
Unit 3: Exogenetic processes: Weathering and mass wasting - meaning and concept; controlling factors, classification and significance; Dynamics of fluvial, aeolian, glacial and karst processes and resulting landforms.			
Unit 4: Applied Geomorphology - meaning; Applications of Geomorphology in Regional planning, engineering projects, mineral exploration and hydrology; Regional Geomorphology of Punjab plain, Aravalli Region and Thar desert of India.			
References: 1. Bloom, A.L. (1992), Geomorphology, Second Edition, Prentice Hall of India, New Delhi. 2. Dayal, P. (1990), A Text Book of Geomorphology, Shukla Book Depot, Patna. 3. Husain Majid (2002), Fundamentals of Physical Geography, Second Edition, Rawat Publications, Jaipur and New Delhi. 4. Singh Savindra (1993), Physical Geography, Prayag Pustak Bhawan, Allahabad. 5. Singh Savindra (1998), Geomorphology, Prayag Pustak Bhawan, Allahabad. 6. Strahler, A.N. and Strahler, A.H. (1996), Introducing Physical Geography, John Willey and Sons, New York. 7. Strahler, A.N. (1988), Earth Sciences, Harper and Row Publishers, N.D. 8. Thornbury, W.D. (1991), Principles of Geomorphology, John Wiley, New Delhi. 9. Wooldridge, S. W and Morgan, R.S. (1991), An Outline of Geomorphology, Orient Longmans, Calcutta.			

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Syllabi and S.O.E. for Post Graduate Program w.e.f. 2024-25 session

Syllabi for Post Graduate Program in Geography

Semester – 1st

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Climatology	Course Code	24GEO201DS03
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
<p>Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.</p>			
<p>Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand the mean global atmospheric circulations and disturbances. CLO 2: understand the world climate systems, climatic variability and change. CLO 3: sensitise the students with the future global environmental changes.</p>			
<p>Unit 1: Nature and Scope of Climatology; Climatic elements—atmospheric temperature, pressure, moisture, general atmospheric circulations, jet stream.</p>			
<p>Unit 2: Weather system and disturbances—air-mass, fronts, cyclones, tornadoes; Ocean atmospheric interaction – El Niño, Monsoon winds.</p>			
<p>Unit 3: Global climate system - Approaches to climatic classification; Classification of Koppen, and Thornthwaite; Major Climates of the world-tropical and polar.</p>			
<p>Unit 4: Climatic changes - evidences, possible causes, global warming acid rain and problems of acid rain.</p>			
<p>References:</p> <ol style="list-style-type: none"> 1. Aggarwal, S. K. (1972), Fundamentals of Ecology, Ashish Publishers, New Delhi. 2. Barry, R. G. and Chorley, R. J., Atmosphere, Weather and Climate, ELBS, Methuen & Co. Ltd. London. 3. Bhutani, Smita, (2000), Our Atmosphere, Kalyani Publishers, New Delhi. 4. Critchfield, H. J. (1987), Climatology, Prentice Hall of India, New Delhi. 5. Griffith, J. F. and Driscoll, D. M. (1982), Survey of Climatology, Charles Merrill, Columbus, Ohio 6. Lal, D. S. (1993), Climatology, Chaitanya Publishing House, Allahabad. 7. Riehl, H. (1968), Introduction to Atmosphere, Mc Graw Hill, New York. 8. Robinson, P. J. and Henderson Sellers (1986), Contemporary Climatology, Longman, London. 9. Trewartha, G. T. (Latest edition) Introduction to Climate, Mc Graw Hill, New York. 			

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Syllabi for Post Graduate Program in Geography

Semester – 1st

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Resource Geography	Course Code	24GEO201DS04
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: examine the distribution, utilization, and management of natural resources on earth. CLO 2: understand the spatial aspects of resource availability, environmental impact, and sustainable resource management. CLO 3: understand the concept and classification of resources, use or misuse and will learn conservation methods and techniques.			
Unit 1: Nature, Scope and Significance of Geography of Resource; Definition and Concept of Resources, Classification of Resources.			
Unit 2: Models of Natural Resource Processes: Zimmermann's Primitive and Advance Models of Natural Resource Process, Kirk's Decision Model, Brookfield System Model.			
Unit 3: Use and Misuse of Resources: Soil Resource; Water Resource; Forest Resource and Mineral Resources; Future Prospects of Natural Resources.			
Unit 4: Conservation and Management of Natural Resources: Meaning and Concept of Conservation of Natural Resources; Resource Conservation and Management Methods of Natural Resources- Soil Resource, Water Resource, and Forest Resource; Problems of Natural Resource Management in India.			
References: 1. Eliot Hurst, M.E. (1972), A Geography of Economic Behaviour: An Introduction, Duxbury Press, California. 2. Guha, J.L. and P. R. Chattroj (1994), Economic geography- A Study of Resources, The World Press Pvt. Ltd. Calcutta 3. Haroon Mohamad. (2007), Geography of Resources, Vasundhara Parkashan, Gorakhpur. (Hindi Edition) 4. Martin, R.H. and F.L. Warren. (1959), Natural Resources. McGraw Hill Book Co. London. 5. Maurya, S.D. (2015), Economic Geography. Parwalika Publications, Allahabad (Hindi Edition). 6. Negi, B.S. (2000), Geography of Resources, Kedar Nath and Ram Nath, Meerut 7. Owen, Oliver, S. (1971), Natural Resource Conservation: An Ecological Approach. Mc Million New Delhi. 8. Ramesh, A. (1984), Resource Geography (Ed.) R.P. Misra, Contribution to Indian Geography, Vol 5, Heritage Publishers, New Delhi. 9. Singh, A and Raja, M. (1982), Geography of Resources and Conservation (Hindi Edition) Pargati Parkashan, Meerut. 10. Zimmermann, E. W. (1951), World Resources and Industries, Harper and Brothers, New Delhi.			

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Syllabi for Post Graduate Program in Geography

Semester – 1st

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Statistical Methods in Geography	Course Code	24GEO201DS05
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: explain the nature and types of data, and related statistical techniques. CLO 2: make a rational choice amongst listed various statistical techniques. CLO 3: describe and explain geographical data relationships.			
Unit 1: Statistics, Geography and Statistics; Significance of Statistics in geographical studies; Primary and Secondary Data; Levels of data measurement: Nominal, Ordinal, Interval, and Ratio.			
Unit 2: Measures of Central Tendency: Arithmetic Mean, Median, Mode and their geographical significance; Centographic techniques: Mean Centre, Median Centre and Standard Distance.			
Unit 3: Measures of dispersion and concentration: Mean deviation, Standard Deviation; Coefficient of Variation, Lorenz Curve and Gini's Coefficient; Location Quotient.			
Unit 4: Correlation and regression: Scatter diagram, correlation by Spearman's Rank Difference and Karl Pearson's Product Moment, Significance testing of Correlation; Regression analysis regression equations construction of regression line, computation of residuals and mapping.			
References: <ol style="list-style-type: none">1. David M. Smith (1975), Patterns in Human Geography, Penguin, Harmondsworth.2. Ebdon, D (1983), Statistics in Geography: A Practical Approach, Blackwell, London.3. Gregory, S. (1978), Statistical Methods and the Geographer (4th Edition), Longman, London.4. Gupta, S.P., Statistical Methods, Sultan Chand and Sons, Latest Edition.5. Mathews, J.A. (1987), Quantitative and Statistical Approaches to Geography,6. Practical Manual, Pergmon, Oxford.7. Pal, S.K. (1998), Statistics for Geoscientists; Techniques and Applications, Concept Publishing Company, New Delhi.8. Peter, J. Taylor (1977), Quantitative Methods in Geography, Houghton Mifflin Company, Boston.9. Robert Hammond and Patrik Mc. Cullagh (1974), Quantitative Methods in Geography, Clarendon Press, Oxford.10. Yeates, Mauris (1974), An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York.			

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Syllabi for Post Graduate Program in Geography

Semester – 1st

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Topographical Sheets and Morphometric Analysis	Course Code	24GEO201SE01
Hours per Week	8	Credits	4 (0+0+4)
Maximum Marks	100 External: 70 Written Test: 60 Viva-Voce : 10 Internal: 30 Lab work Record File: 25 Attendance: 05	Time of Examinations	4 hrs.
Note: (i) The question paper shall contain eight questions in all, including two questions from each unit. Candidate(s) are required to attempt four questions in all selecting at least one question from each unit. All questions carry equal marks. (ii) Candidates shall produce their lab work record before the Board of Examiners at the time of their viva-voce examination.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand both the significance and applications of maps, and grasp the relationships and juxtaposition of features within them. CLO 2: know the types and significance of morphometry. CLO 3: understand and apply morphometric techniques in any geographical area.			
Unit 1: Introduction to Maps: Definition and Types of Maps, Map scale, Conventional map symbols, Importance and uses of maps; Interpretation of Topographical maps: Topographical maps and their types.			
Unit 2: Basic information on Topographical sheets, Conventional Signs, Identification of Physical and Cultural details on Survey of India Toposheets.			
Unit 3: Morphometric Analysis of Drainage Basin- Types and its Geographical Significance, Linear Aspects: Stream Ordering Based on Horton and Strahler, Areal Aspects: Stream Frequency and Drainage Density.			
Unit 4: Relief Aspects: Hypsometric Curve and Integral Hypsometric Curve, Clinographic Curve, Slope Analysis- Average Slope (Wentworth's method), Relative Relief (Smith's method), Profile Analysis - Longitudinal profile.			
References: 1. Monkhouse, F.J. and H.R. Wilkinson (1980), Maps and Diagrams, B.I. Publications, Bombay. 2. Robinson A. H. (2009), Elements of Cartography, John Wiley and Sons, New York: 3. Sharma J.P. (2010), Prayogic Bhugol. Rastogi Publishers, Meerut. 4. Singh R. L. and Singh R. P. B. (1999), Elements of Practical Geography, Kalyani Publishers, Noida. 5. Sarkar, A. (2015), Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd. New Delhi. 6. Singh, R.L. (1979), Elements of Practical Geography, Kalyani Publishers, New Delhi. 7. Singh, R. L. and Rana P. B. Singh. (1991), Prayogtmak Bhugolke Mool Tatva. Kalyani Publishers, New Delhi. 8. Singh, S. (1997), Geomorphology, Prayag Pustak Bhawan, Allahabad. 9. Sharma, J. P. (2010), Prayogtmak Bhugolki Rooprekha. Rastogi Publications, Meerut.			

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Syllabi for Post Graduate Program in Geography

Semester – 2nd

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geography of World Economy	Course Code	24GEO202DS01
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: understand and explain how economic activities occur unevenly in an increasingly globalized world.

CLO 2: know how local places and global economy are intertwined.

CLO 3: describe how the regime of neoliberal economic policies are generating uneven geography of capitalist development.

Unit 1:

Economic Geography: The Stuff of Economic Geography, A brief history, Why Economic Geography? Modes of Theorizing in Economic Geography: Political Economy, Poststructuralist Economic Geography.

Unit 2:

Capitalism, Fundamental Concepts: Use-value, Exchange Value, Capital, Capital and Labour, Capital Accumulation, Capital Accumulation by Dispossession. Capitalism in Twentieth Century: Organized Capitalism, Disorganized Capitalism. Neo-Liberalism.

Unit 3:

World Economy and the Capitalist mode of production, The Basic Elements of World Economy: A Single Market, a Multiple State System, the Three-tier structure; A Space- Time Matrix of the World Economy, Dynamics of World Economy, Spatial Structure of the World Economy.

Unit 4:

Economic Development: Globalization or Internationalization, Patterns of International Trade, WTO and Developing Countries.

References:

1. Aoyama, Yuko et.al. (2011), Key Concepts in Economic Geography, London: Sage.
2. Benko, Georges and Ulf Strohmayer (2004), Human Geography, London: Arnold.
3. Daniels, Peter et.al. (2003). Human Geography, New Delhi: Pearson.
4. Dicken, P. (2003), Global Shift: Reshaping the Global Economic Map in the 21st Century, New Delhi: Sage Publications.
5. Harvey, David (1990), The Condition of Postmodernity, Oxford: Blackwell.
6. Harvey, David (2008), A Brief History of Neoliberalism, Oxford: Oxford University Press.
7. Harvey, David (2015), Seventeen Contradictions and the End of Capitalism, London: Profile Books.
8. Hudson, Ray (2005), Economic Geographies, New Delhi: Sage Publications.
9. Knox, Paul et.al. (2003), The Geography of the World Economy, London: Arnold.
10. Leyshon, Andrew et.al. (2011), The Sage Handbook of Economic Geography, London: Sage.
11. Mackinnon, Danny and Andrew Cumbers (2011), Introduction to Economic Geography, London: Routledge.
12. Singh, Sachinder (2013), "Unmasking Neoliberalism: From Welfare Commitments to Market Commitments", Transactions, Institute of Indian Geographers, vol.35, no.2, pp.157-172.
13. Singh, Sachinder (2017a), "Globalization and the State: The Economic Face", in B. Thakur et.al. (eds.), Regional Development: Theory and Practice, vol.1: Concept of Regional Development, New Delhi: Concept, pp.431-447.
14. Singh, Sachinder (2017b), "Neo-liberalism: Origin, Expansion and Challenges", in

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15. Thakur et.al. (eds.), Regional Development: Theory and Practice, vol.4: Development Policies, New Delhi: Concept, pp.3-19.
- 15 Singh, Sachinder (2017c), "Fordism to Neo-Fordism: A Study in Economic Geography", International Journal of Economic Perspective, vol. 11, no.1, pp.336-340.
- 16 Taylor, P.J. and Collin Flint (2000), Political Geography: World Economy, Nation-State and Locality, New York: Prentice Hall.

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Syllabi for Post Graduate Program in Geography

Semester – 2nd

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Regional Development and Planning	Course Code	24GEO202DS02
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: get familiarized with the theoretical foundations and conceptual grounding of this branch. CLO 2: understand and evaluate the concept of region in geography. CLO 3: know about the regional development and planning process in India.			
Unit 1: Conceptual and theoretical framework: Concept of development, regional development; concept of region and regional planning; geography and regional planning; selection of indicators and measures of regional disparities.			
Unit 2: Regional Growth Theories: Friedman's core-periphery theory; polarization and trickle-down effect theory of Hirschman; circular and cumulative causation model of Myrdal; growth pole theory of Perroux.			
Unit 3: Planning process: types of planning; regional planning and its rationale, principles and objectives. Regions for Planning: characteristics, hierarchy, need, and demarcation; Planning regions of India.			
Unit 4: Experiences of regional development and planning in India, multi-level planning (state, district, block and panchayat level planning); Regional Policies in the Indian Five-Year Plans; planning policies for regional development; regional backwardness: criteria, strategy and programmes for backward area development.			
References: 1. Bhatt, L. S. 1972. Regional Planning in India. Statistical Publishing Society, Calcutta. 2. Chand, M and V.K. Puri. 1985. Regional Planning in India. Allied Pub. Pvt. Ltd. New Delhi. 3. Coates, B.R. and R.J. Johnston. 1977. Geography and Inequality. Oxford University Press, Oxford. 4. Friedmann, J. and William Alonso. 1967. Regional Development and Planning: A Reader. MIT Press, Cambridge Massachusetts 5. Kuklinski, A. R.ed. 1972. Growth Poles and Growth Centres in Regional Planning. Monton, The Hague. 6. Misra R. P. et al. eds. 1974. Regional Development Planning in India, Vikas, New Delhi. 7. Mohan, Krishna. 2005. Addressing Regional Backwardness: An Analysis of Area Development Programmes in India, New Delhi: Manak Publications. 8. Raza, Moonis. 1988. Regional Development, Heritage, New Delhi. 9. Singh, Nina. 2015. "Regional Backwardness in India: An Exploration of Demographic Indicators". Population Geography, vol.37, No.1&2, pp.13-24. 10. Surya Kant and Nina Singh. 2015. Geography Development Public Policy: Select Essays of Gopal Krishan. R K Books, New Delhi. 11. Kant, Surya et. al. 2004. Reinventing Regional Development. Rawat Publications, Jaipur. 12. Sundram, K. V. 1977. Urban and Regional Planning in India. Vikas Publishig House Pvt Ltd, New Delhi.			

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Syllabi for Post Graduate Program in Geography

Semester – 2nd

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Environmental Geography	Course Code	24GEO202DS03
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: know the fundamental concepts and approaches of environmental geography.

CLO 2: know the importance of biodiversity to maintain ecological balance.

CLO 3: understand various environmental issues at national and international concerns.

Unit 1:

Environmental Geography: Nature and scope of environmental geography; fundamental concepts of environmental geography; Approaches and methods in Environmental Geography; Relationship with other branches of knowledge; Environment and Ecology: Meaning, structure and type of Environment; Ecology - meaning, scope and concepts. Sub-vision of ecology.

Unit 2:

Ecosystem: Meaning and concepts of ecosystem; Classification and components of eco- system; trophic structure; ecological pyramid; energy flow and biogeochemical cycle; Ecological regions of India.

Unit 3:

Environmental pollution- meaning, types, sources, causes and impacts; Air, Water and Land pollutions; Environmental Degradation – Nature, process, types and causes of environmental degradation; Greenhouse effect; Global warming; Ozone depletion and Desertification.

Unit 4:

Environmental management: concept, methods and approaches; Management of soil, forest and mineral resources; Disaster Management; Conservation of natural resources; Emerging environmental problems and issues in India; Environmental policies, programmes, awareness and movements in India.

References:

1. Anderson J.M. (1981), Ecology for Environmental Science: Biosphere, Ecosystems and Man, Arnold, London.
2. Awasthi, N.M. and Tiwari, R.P.L. (1995), Paryavaran Bhugool (Environmental Geography), Madhya Pradesh Hindi Granth Academy, Bhopal.
3. Goudie, Andrew (1984), The Nature of the Environment (1st edition), Blackwell Publishers, Oxford, UK.
4. Goudie, Andrew (2001), The Nature of the Environment (4th edition), Blackwell Publishers, Oxford, UK.
5. Nobel and Wright (1996), Environmental Science, Prentice Hall, New York.
6. Odum, E.P. (1971), Fundamental of Ecology, W.B. Sanders, Philadelphia.
7. Saxena, H.M. (1994), Prayavaranevn Paristhitiki Bhugool (Geography of Environment and Ecology) Rajasthan Hindi Granth Academy, Jaipur.
8. Singh, Savinder (1991), Environmental Geography, Prayag Pustak Bhawan, Allahabad.
9. Singh, R.B. (ed.) (1989), Environmental Geography, Heritage, New Delhi.
10. Strahler, A.N. and Strahler, A.H. (1973), Environmental Geosciences: Interaction between natural systems and Man, John Wiley and Sons, New York.
11. Strahler, A.H. and Strahler A.N. (1977), Geography and Man's Environment, John Wiley, New York.
12. William, M.M. and John, G. (1996, Environmental Geography - Science, Land use and Earth System, John Wiley and Sons, New York.

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Syllabi for Post Graduate Program in Geography

Semester – 2nd

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Fundamental of Cartography	Course Code	24GEO202DS04
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: know the basics, importance, and methods of cartography.

CLO 2: understand the various map projections and coordinate system.

CLO 3: learn the different aspects of design in cartography.

Unit 1:

Introduction to cartography: Meaning, Nature, Scope, Significance and Development; Geography and Cartography; Cartography as a science of human communication; Tools and techniques in cartography; Recent trends in cartography.

Unit 2:

Geographical data: Nature, Characteristics, Types and Sources; Geographical attributes; Variables and entities; Data collection methods; Sampling: Sample, Types of samples, Sampling process, Methods and errors; Data: Classification and tabulation.

Unit 3:

Cartography in A GIS Environment: Data capture and conversion; Accessibility and availability; Accuracy and precision; Data referencing: spatial and temporal; Geographical coordinates: Introduction and system; Map: reference systems and transformations; Digital cartography: Meaning, Development and Significance.

Unit 4:

Mapping: Layout design of topographic, thematic, qualitative & quantitative maps; Introduction to Mapping organization and services in India: SOI, NATMO and NRSC.

References:

1. Cromley, R.G. (1992), Digital Cartography, Prentice-Hall, New York.
2. Dent, B.D. (1999), Cartography- Thematic Map Design, 5th Edition, WCB McGraw Hill, Boston.
3. Harvey, F. (2009), Primer of GIS: Fundamental Geo. & Cartographic Concepts, Rawat Publications, Jaipur
4. John, K. & Wood, D. (2013), Making Maps: A Visual Guide to Map Design for GIS, Guilford Publications.
5. Keates, J.S. (1998), Cartographic Design and Production, Longman, London.
6. Kraak, M. J. and A. Brown (1996), Web Cartography: Developments and Prospects, Addison Wesley Longman Limited, England.
7. Misra, R.P. & Ramesh, A. (2014), Fundamental of Cartography, Concept Publishing Company, New Delhi.
8. Monkhouse, F.J.R. & Wilkinson, H.R. (2000), Maps and Diagrams, Methuen & Co. London.
9. Raisz, Erwin (1962), Principles of Cartography, McGraw-Hill, New York.
10. Rampal, K.K. (1993), Mapping and Compilation, Concept Publishing Co. New Delhi.
11. Robinson A. H. (2009), Elements of Cartography. New York: John Wiley and Sons.
12. Robert G. Cromley, (1992), Digital cartography, Prentice Hall, Englewood Cliffs, New Jersey.

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Semester – 2nd

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geography of India	Course Code	24GEO202DS05
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: understand the geographical aspects of India.

CLO 2: have knowledge about Indian sub-continent contemporary issues.

CLO 3: understand the demographic aspects of India.

Unit 1:

Physiographic division of India; Drainage systems Mechanism of Indian monsoons and climatic regions of India: types of soils and natural vegetation.

Unit 2:

Growth of population, Distribution and density of population; Demographic attributes; sex- ratio, literacy rate and workforce; population problems and policies.

Unit 3:

Characteristics of Indian agriculture and its development since independence; Agricultural region of India; Major industrial regions of India; domestic and international trade patterns; Transportation network.

Unit 4:

Evolution of administrative map of India since independence; Disputes of river water sharing amongst states with reference to SYL; Inter -linking of rivers; Terrorism problems of internal security; Population explosion and food security.

References:

1. Spare O.H.K. and A. T.A. Learmonth, (1967), Geography of India and Pakistan, Methuen London (first Indian Edition, 1984, Munshiram Manoharlal, New Delhi).
2. Gautam A. (2009), Advanced Geography of India, Sharda Pustak Bhawan, Allahabad.
3. Sharma, T.C. and Coutinho, O (1988), Economical and commercial Geography of India, Vikas publishing house Pvt. Ltd. New Delhi.
4. Chandna, R. C. (1998), Geography of Population, Kalyani Publishers, New Delhi.
5. Tirtha, Ranji, (2006), Emerging India, Con pub. Ann Arbour, Michigan. U.S.A.

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Syllabi for Post Graduate Program in Geography

Semester – 2nd

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Cultural Geography	Course Code	24GEO202DS06
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: geography of rural settlement delves into the spatial dynamics of rural communities. CLO 2: keep up to date with the theoretical aspects and conceptual base of this branch. CLO 3: explore the intricate relationship between geography and rural settlements.			
Unit 1: The Nature Meaning & Scope of Cultural Geography. The evolutionary approach in cultural geography. The Framework of cultural Geography. The evolution of cultural Geography-The contribution of Otto Schluter and Carl Sauer.			
Unit 2: Cultural Geography: Elements & Components; Cultural Areas & Cultural Realm. Environment and Culture: Concept of cultural areas and cultural regions. Cultural adaptation and Environmental perception. Man, as modifier of the earth.			
Unit 3: Spatial Structure. Focus on similarities and differences of various cultures with respect to racial, religious, linguistic and demographic, characteristics in Indian context. Studies of the socio-cultural characteristics of contemporary societies within their manifested.			
Unit 4: Human races: Habitat economy and Society of tribal groups. Racial Elements in India's Population; Tribes of India (Bhil, Gond, Toda, Naga); Tribes of World (Eskimo, Pigmy, Bushman).			
References: 1. Ahmad, Aijazuddin, (1999), Social Geography, Rawat Publication, New Delhi. 2. De Blij, B.d. Human Geography. John Wiley and Son, New York. 3. Dreze Jean, Amartya Sen, (1996), Economic Development and Social Opportunity, Oxford University press, New Delhi. 4. Dubey, S.C. (1991), Indian Society, National Book Trust, New Delhi. 5. Gregory, D. and UJ. Larry. (eds.) (1985), Social relations and Spatial Structures, McMillan. 6. Haq, Mahbulul: Reflection on Human Development. Oxford University Press. New Delhi 7. Maloney, Clarence, (1974), People of South Asia, Winston, New York. 8. Planning Commission, Government of India, (1981), Report on Development of Tribal areas. 9. Rao, M.S.A. (1970), Urban Sociology in India, Orient Longman. 10. Schwartzberg Joseph, (1978), An Historical Atlas of South Asia. University of Chicago Press. Chicago. 11. Sen, Amartya and Dreze Jean, (1996), Indian Development Selected Regional Perspectives. Oxford University Press. 12. Smith, David, (1977), Geography: A Welfare Approach. Edward Arnold, London. 13. Sopher, David, (1980), An Exploration of India. Cornell University Press. 14. Subba Rao. (1958), Personality of India: Pre and Proto Historic Foundation of India and Pakistan, M.S. University, Baroda, Vadodara.			

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Syllabi for Post Graduate Program in Geography

Semester – 1st

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Urban Geography	Course Code	24GEO201DS07
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: understand basics of urban settlements.

CLO 2: Learn the evolution of urban settlements with geographical view point.

CLO 3: Understand the processes for urbanisation in spatio-temporal context.

Unit 1:

Urban Geography: definition, nature, scope, and recent trends; Urban revolutions and growth of towns and cities in the world (with particular reference to India).

Unit 2:

Urbanisation processes and patterns in an era of globalisation; urbanisation process in India: colonial legacy, the post-independence characteristics; phases of urban development with location of economic activities in cities; urban form and structure: pre-industrial, industrial and postindustrial societies.

Unit 3:

Aspects of urban places: Location, site and situation - definition, nature and significance; urban ecological processes; urban systems and the growth of cities: the rank-size distribution of cities, primate city distribution, central place theory of Christaller; the urban fringe.

Unit 4:

Urban planning visions: the garden city, the radiant city; conserving urban landscapes; sustainability and the city; city environments and living conditions; urban development strategy with particular reference to India.

References:

1. Badcock, Blair. (2002), Making Sense of Cities: A Geographical Survey. Arnold, London.
2. Bala, Raj. (1986), Urbanisation in India, Rawat Publishers, Jaipur.
3. Bansal, S.C. (2010), Urban Geography. Meenakshi Prakashan, Meerut.
4. Beall, Jo and Sean Fox. (2009), Cities and Development. Routledge, London.
5. Carter, Harold (1995), The Study of Urban Geography. 4th edn, Arnold, London.
6. Fyfe, Nicholas R. and Judith T. Kenny. (2005), The Urban Geography Reader. Routledge, New York.
7. Hall, Tim and Heather Barrett. (2012), Urban Geography. 4th edn. Routledge, London.
8. Pacione, Michael. (2001), Urban Geography-A Global Perspective. Routledge, London.
9. Ramachandran, R. (1989), Urbanisation and Urban Systems in India. Oxford, New Delhi.
10. Singh, K. and F. Steinberg, eds. (1987), Urban India in Crisis. New Age International, New Delhi.
11. Smailes, A.E. (1953), The Geography of Towns. Hutchinson, London.

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Syllabi for Post Graduate Program in Geography

Semester – 2nd

Session: 2024-25

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Computer Aided Statistical Diagrams and Digital Cartography	Course Code	24GEO202SE01
Hours per Week	8	Credits	4 (0+0+4)
Maximum Marks	100 External: 70 Written Test: 60 Viva-Voce : 10 Internal: 30 Lab work Record File: 25 Attendance: 05	Time of Examinations	4 hrs.
Note: (i) The question paper shall contain eight questions in all, including two questions from each unit. Candidate(s) are required to attempt four questions in all selecting at least one question from each unit. All questions carry equal marks. (ii) Candidates shall produce their lab work record before the Board of Examiners at the time of their viva-voce examination.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: know the uses of computers in geography. CLO 2: learn the geographic data processing through Microsoft excel and GIS software's. CLO 3: have the skill of drawing maps.			
Unit 1: Introduction to Computer: Components of Computer—Hardware and Software; Use of Computers in Geography.			
Unit 2: Introduction to Microsoft Excel: Input of data, Bar Diagram, Pie Diagram, Scatter Diagram, Line Graph. Placement of heading and sub-heading, legend, Font size, Style, Bold, Italics, Changes from color to different shade pattern. Different weight, color and pattern to X and Y coordinates.			
Unit 3: Cartography as the root of GIS; Introduction to GIS software's: Arc GIS or GIS; Data Acquisition and Processing; Spatial data download from open sources; Data input; Layer stacking; Correction, Editing, Manipulating, Verification and Storage; Georeferencing: Map to maps, Map to images, Image to images.			
Unit 4: Geodatabase Creation: Digitization of point; Line and polygon features; Data conversion: raster to vector & vector to raster; Linking of Attribute data with spatial data; Map layout design and labelling of basic elements; Making Maps: Topographic; Thematic; Qualitative & Quantitative.			
References: 1. Chrisman, N. (1997), Exploring Geographic Information Systems. New York: John Wiley & Sons, Inc 2. Clarke, K. C. (1998), Analytical and Computer Cartography, Pearson Educational Company, New Jersey. 3. Cromley, R.G. (1992), Digital Cartography, Prentice-Hall, New York. 4. Dent, B.D. (1999), Cartography- Thematic Map Design, 5th Edition, WCB McGraw Hill, Boston. 5. Harvey, F. (2009), Primer of GIS: Fundamental Geo. & Cartographic Concepts, Rawat Publications, Jaipur 6. John, K. & Wood, D. (2013), Making Maps: A Visual Guide to Map Design for GIS, Guilford Publications. 7. Keates, J.S. (1998), Cartographic Design and Production, Longman, London. 8. Kraak, M. J. and A. Brown (1996), Web Cartography: Developments and Prospects, Addison Wesley Longman Limited, England.			

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9. MacEachren, Alan, M., (1995), How Maps Work, Representation, Visualization and Design, Guilford Press
10. Misra, R.P. & Ramesh, A. (2014), Fundamental of Cartography, Concept Publishing Company, New Delhi.
11. Monkhouse, F.J.R. & Wilkinson, H.R. (2000), Maps and Diagrams, Methuen & Co. London.
12. Monmonier, M.S. (1982), Computer Assisted Cartography: Principles and Prospects, Prentice Hall.
13. Raisz, Erwin. (1962), Principles of Cartography, McGraw-Hill, New York.
14. Rampal, K.K. (1993), Mapping and Compilation, Concept Publishing Co. New Delhi.
15. Robinson, A.H., J. L. Morrison, P.C., Muehrcke, A. J. Kimerling and S. C. Guptill (1995), Elements of Cartography, 6th Edition. New York., John Wiley & Sons. USA.
16. Robinson A. H. (2009), Elements of Cartography. New York: John Wiley and Sons.
17. Robert G. Cromley, (1992), Digital cartography, Prentice Hall, Englewood Cliffs, New Jersey.

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Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Remote Sensing	Course Code	25GEO203DS01
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand different types of remote sensing CLO 2: have knowledge about different kinds of remote sensing sensors and platforms. CLO 3: enhance the knowledge of Indian remote sensing/space programmes.			
Unit 1: Introduction, development and applications of Remote Sensing technology; Electromagnetic radiation and remote sensing; Energy interactions in atmosphere; Energy interactions with earth surface features; Spectral signatures.			
Unit 2: Basic concepts and advantages of- Optical Remote Sensing; Thermal Remote Sensing; Microwave Remote Sensing; Hyper spectral Remote Sensing; Remote Sensing below Ground Surface; Ground investigations in Remote Sensing.			
Unit 3: Platforms: Airborne and Space borne; Sensors: Passive and Active; Image data characteristics: Spatial, Spectral, Radiometric and Temporal.			
Unit 4: History and development of Indian Space Programme; General Satellite Programmes: IRS Satellite Series, INSAT Series, Gagan Satellite Navigation System; Extra-terrestrial exploration: Lunar exploration, Mars exploration, Solar probes; International co-operations.			
References: 1. Chanrda, A.M. and S.K. Ghosh (2006) Remote Sensing and Geographical Information System, Narosa Publishing House, New Delhi. 2. Chaunial, D.D. (2016) Principles of Remote Sensing and Geographical Information System (In Hindi), Sharda Pustak Bhawan, Allahabad. 3. Joseph, George (2003) Fundamental of Remote Sensing, University's Press (India) Pvt. Ltd., Hyderabad. 4. Lillesand, T.M. and Ralph W. Keifer (2002) Remote Sensing and Image Interpretation, John Wiley & Sons, Inc., New York. 5. Panda, B.C., (2005) Remote Sensing: Principles and Applications, Viva Books Pvt. Ltd., New Delhi. 6. Reddy, Anji, M. (2001) Textbook of Remote Sensing and Geographical Information Systems, BSP B.S. Publications, Hyderabad. 7. Singh Surendra and A.N. Patel (1999) Principles of Remote Sensing, Scientific Publishers, Jodhpur-342001, Rajsthan (India).			

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Syllabi for Post Graduate Program in Geography

Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geographic Information System	Course Code	25GEO203DS02
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: understand the basic concept and functions of GIS.

CLO 2: know the applications of GIS.

CLO 3: understand the importance of GIS in decision making and real-world problem solving.

Unit 1:

Introduction to GIS: Meaning, Concept, History and development; Scope and significance of GIS; Components and basic functions of GIS; Recent trends in GIS; GIS education in India: Issues, progress and challenges; Significance of GIS in geography.

Unit 2:

Geographical data characteristics and sources: Nature, Types and sources; Accessibility and availability; Spatial database models: Hierarchical, Network, Geo-relational, Object based and field-based model; Spatial data model: Raster and vector.

Unit 3:

Spatial analysis: Raster & vector overlay; Buffer analysis; Digital surface model: DSM, DTM & DEM, Spatial Interpolation: IDW, Spline & Kriging methods; Network analysis.

Unit 4:

Applications of GIS in regional development & planning, Agriculture, Hydrology, Urban and environmental studies.

References:

1. Bhatta B. (2023), Remote Sensing and GIS, Oxford University Press, New Delhi.
2. Chang, K.T. (2019), Introduction to Geographic Information Systems, Tata McGraw-Hill Publishing Company Ltd, New York.
3. Paul B. (2019), GIS Fundamentals: A First Text on Geographic Information Systems, Eider Press, USA.
4. Reddy, M. A. (2012), Remote Sensing and Geographic Information Systems, B S Publications, Hyderabad.
5. Walford N. (2002), Geographical Data Characteristics and Sources, John Wiley & Sons; Ltd. West Sussex, England.

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Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Population Geography	Course Code	25GEO203DS03
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand the human population distribution, migration patterns, and demographic dynamics. CLO 2: know the influencing population growth, urbanization, and spatial disparities. CLO 3: understand population distribution and its problems and management.			
Unit-1: Population Geography: Definition, nature and scope; relationship with other disciplines –demography and population studies; sources of data with particular reference to India – census, vital or civil registration system, Sample Registration System, Sample surveys with particular reference to NSSO and NFHS; Problems of their reliability and comparability.			
Unit 2: Population Distribution and Growth: Factors affecting population distribution; Population growth - trends and determinants; spatial dimension of population growth in India; Theories of population growth – pre-Malthusian views, Malthus’ Theory, views of socialist writers, optimum population theory, demographic transition model.			
Unit 3: Components of population change: trends and patterns in fertility and mortality levels; Theories of fertility; Migration: major international migrations; features of internal migration in India; theories of migration; population composition and characteristics - age and sex composition, literacy, marital status and economic characteristics of population.			
Unit 4: Population and development: population growth and economic development; population growth and environmental quality; population control movement: population policies and its types; India’s Population Policy: Post independence development – Reproductive and Child Health Programme.			
References: 1. Beaujen- Garnier J. (1966), Geography of Population; Longman, London. 2. Bhende Asha A and Kanitkar. (2002), Principles of Population Studies, 14th Edition, Himalaya Publishing House, Mumbai. 3. Chandana, R.C. (2002), Geography of Population: Concepts, determination and patterns, Kalyani Publishers, New Delhi. 4. Clarke, J.I. (1992), Population Geography, Second Edition, Pergamon Press, Oxford England. 5. Hassan, M.I. (2005), Population Geography, Rawat Publication, Jaipur. 6. Premi, M.K. (1991), India’s Population Heading Towards a Billion, B.R. Publishing Corporation, New Delhi.			

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Syllabi for Post Graduate Program in Geography

Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Political Geography	Course Code	25GEO203DS04
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand the linkages between politics and space. CLO 2: explain the key concepts like state, nation, nation-state. CLO 3: describe and explain the changing nature of modern state and challenges it is facing.			
Unit 1: Nature and scope of Political Geography; Perspectives: Political-Economy, World Systems, Place, and Globalisation.			
Unit 2: Concepts of Nation, State, Nation-State; Emergence and growth of territorial state; Globalization and the Crisis of the Territorial State; Forms of Governance: Unitary and Federal.			
Unit 3: Rise and Demise of German Geopolitics; Geopolitics in the post-Cold War World - S.B. Cohen's model of Geo-strategic and Geo-political regions.			
Unit 4: India as a regional power in South Asia; National and Regional political parties in India; Women as a marginalized section in Indian politics; Inter-state water disputes in India (special reference to SYL canal).			
References: 1. Agnew, J.A. (1987), Place and Politics, Boston: Allen and Unwin. 2. Agnew, J.A. (1998), Geopolitics, London: Routledge. 3. Blacksell, Mark (2003), Political Geography, London: Routledge. 4. Flint, Collin and Taylor, P.J. (2011), Political Geography, New Delhi: Pearson. 5. Cox, Kevin R. (2008), The Sage Handbook of Political Geography, New Delhi: Sage. 6. Dicken, Peter (2003), Global Shift, New Delhi: Sage. 7. Dikshit, R.D. (2000), Political Geography: The Spatiality of Politics, New Delhi: Tata McGraw Hill. 8. Dodds, Klaus (2007), Geopolitics, New York: Oxford University Press. 9. Gallaher, Carolyn et.al. (2009), Key Concepts in Political Geography, New Delhi: Sage. 10. Jones, Martin, Rhys Jones and Michael Woods (2003), An Introduction to Political Geography, London: Routledge. 11. Khor, Martin (2001), Rethinking Globalization, London: Zed Books. 12. Nash, Kate (2000), Readings in Contemporary Political Sociology, Oxford: Blackwell. 13. Painter, J. (1995), Politics, Geography and Political Geography, London: Arnold.			

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Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Administrative Geography	Course Code	25GEO203DS05
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand the role of Geography in area administration. CLO 2: acquaint with the role of public policy and public finance in development of administrative areas. CLO 3: have a knowledge of underlying philosophy involved in formation of spatial units and public policies.			
Unit 1: Administrative Geography; Definition, subject matter and significance: Interface between Geography and Public Administration and Political Geography.			
Unit 2: Study of administrative areas in terms of (a) Evolution, (b) Nature, (c) Structural Attributes (hierarchy, size, shape and headquarters) and (d) Administrative area reform.			
Unit 3: Area Administration: (a) Public Policy: Formulation, Implementation and Impact, (b) Public Finance: Public goods and public economy.			
Unit 4: Administrative System: (a) The world pattern, (b) Case studies: India and U.S.A.			
References: 1. Alderfer, H.F. (1964). Local Government in Developing Countries, McGraw Hill, New York. 2. Bennett, R.J. (1980). Geography of Public Finance, Methuen, New York. 3. Coppock, J.T. and JRD Sewell. (1976). Spatial Dimension in Public Policy, Pergamon Press, Oxford. 4. Fesler, J.W. (1949). Area and Administration, University of Alabama Press, Alabama. 5. Humes, S. and Martin, E. M. (1961). The Structure of Local Government throughout the World, Martines Nijhoff, The Hague. 6. Kant, Surya. (1988). Administrative Geography of India, Rawat Publication, Jaipur. 7. Krishan, Gopal (1983). Administrative Geography, Transaction of the Institute of Indian Geographers, Vol. 5, No. 2, pp 101-108. 8. Krishan, Gopal: (1988). The World Pattern of Administrative Area Reform, The Geographical Journal, Vol. 154, No. 1, pp 93-99.			

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Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Biogeography	Course Code	25GEO203DS06
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: know about various aspects of living organisms, their relationship with climate and physical environment. CLO 2: familiarized with interface between biology, ecology and geography. CLO 3: know about converging and forming our biosphere.			
Unit 1: Biogeography-The Development, field, functions of Biogeography; Biosphere-definition, nature, scope and composition.			
Unit 2: Biogeochemical cycles-the hydrological cycle, the carbon cycle, the oxygen cycle, the nitrogen cycle, the phosphorous cycle and the sediment cycle.			
Unit 3: Ecosystem-Meaning, types, components and functioning of ecosystem; Evolution of living organism and factors influencing their distribution on the earth.			
Unit 4: Biomes-Meaning and types; Bio-geographical realms: Zoogeography and Zoogeographical realms.			
References: 1. Aggarwal, S. K. (1992), Fundamental of Ecology. New Delhi: Ashish Pub. House. 2. Brown, J. H. and Lomolino, M. V. (1998), Biogeography .2 nd edn. Massachusetts: Sinauer as sociates, Inc. 3. Cox, C.B., Moore, P.D., Biogeography. (2010), An Ecological and Evolutionary Approach. 5th ed., Cambridge: Blackwell. 4. Johnathan B. Losos, Robert E. Ricklefseds. (2010), The Theory of Island Biogeography Revisited. New Jersey: Princeton University Press. 5. Illic, J. (1974), Introduction to Zoogeography, McMillan, London. 6. MacDonald, Glen. (2002), Biogeography: Introduction to Space, Time and Life. New York: John Wiley. 7. Mathur, H.S. (1998), Essentials of Biogeography. Jaipur: Anuj Printers. 8. Richard John Huggett. (2004), Fundamentals of Biogeography. New York: Taylor and Francis. 9. Robert H., Mac Arthur and Edward O. Wilson. (1967), The Theory of Island Biogeography New Jersey:, Princeton University Press. 10. Robinson, H. (1982), Biogeography. London: The English Language Book Society and Macdonald and Evans. 11. Spellerberg, Ian F. and John, W. D. Sawyer. (1999), An Introduction to Applied Biogeography. Cambridge: Cambridge University Press. 12. Singh, Savindra. (2014), Biogeography. Allahabad: Pravalika Publications.			

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Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geography of Tourism	Course Code	25GEO203DS07
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
<p>Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.</p>			
<p>Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand the basic concepts of tourism. CLO 2: know regional dimensions of tourism in India. CLO 3: get closer insight to tourism in our own country.</p>			
<p>Unit 1: Geography of Tourism: Definition, nature and scope; Motivating factors of tourism; Robinson's classification of motivating factors of tourism.</p>			
<p>Unit 2: Tourism: Product and typology; Infrastructure and support system of tourism: Accommodation and supplementary accommodation; Agencies and intermediaries.</p>			
<p>Unit 3: Impact of tourism: Physical, economic and social, perceptual positive and negative impacts; Tourism paradigms: Ethnic and cultural tourism, heritage tourism, sustainable tourism and eco- tourism.</p>			
<p>Unit 4: Regional dimensions of tourism in India: Himalayan region, Northern Plains and The Thar Desert, Deccan plateau, Coastal Plains and the islands.</p>			
<p>References: 1. Robinson H. A., (1996), Geography of Tourism, Macdonald and Evans, London. 2. Williams Stephen, (1998), Tourism Geography; Contemporary Human Geography, Routledge, London. 3. Kamra K. K. and Mohinder Chand, (2007), Basics of Tourism: Theory, Operation and Practice, Kanishka, New Delhi,</p>			

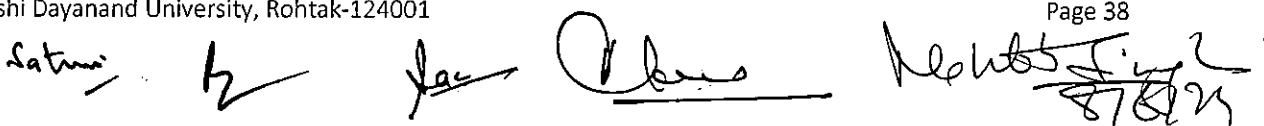
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Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geography of Transport	Course Code	25GEO203DS08
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: know the Geographic relevance of transportation CLO 2: familiarized about various models and theories related to transport network. CLO 3: know about structural analysis of transport network			
Unit 1: Nature and Scope of Transport Geography, Geographic Relevance of Transportation, Transport and Development: Conceptual Frameworks; Theoretical Framework, Models of Global Relevance; (i) The Vance Model, (ii) The Rimmer Model, and (iii) The Taaffe, Morrill and Gould Model.			
Unit 2: The Modes of Transport: Introduction to Modes of Transport, Modal Characteristics of Roads, Railways, Ropeways and Cableways and Airways.			
Unit 3: Structural Analysis of Transport Networks: Networks, Networks Graphs and Types; Measures of Individual Elements of Transportation Networks: Mileage Matrix, Nodality Matrix, Weighted Mileage Matrix, Weighted Nodality Matrix, Gross accessibility; Connectivity of Networks: Cyclomatic Number, Diameter; Alpha, Beta, Gamma, Eta, Pie, Theta and Iota indices.			
Unit 4: Development of Road Transport in Haryana: Growth and Development of Roads in Haryana, Types of Roads, Levels of Road Transport in Haryana, Levels of Road Connectivity in Haryana, Problems of Road Transport in Haryana.			
References: 1. Bamford, C.G. and Robinson, H. (1978), Geography of Transport, Macdonald and Evans, London. 2. Bhaduri S. (1992), Transport and Regional Development, Concept Publishing Company, New Delhi. 3. Eliot Hurst, M. E. (1972), A Geography of Economic Behaviour: An Introduction, Duxbury Press, California. 4. Hammond, R. and Mc Cullagh, P.S. (1989), Quantitative Techniques in Geography; An Introduction, Clarendon Press, Oxford. 5. Hoyle, Band and Knowles, R. (2000), Modern Transport Geography, John Wiley and Sons, New York. 6. Mangat, H.S. and Gill, Lakhvir Singh. (2015), Haryana: Levels of Road Transportation, Punjab Geographer, Vol.11, October, Punchkula, pp.87-102. 7. Raza, M. and Aggarwal, Y.P. (1985), Transport Geography of India, Concept Publishing Company, New Delhi. 8. Saxena, H. M. (2010), Transport Geography, Rawat Publications, New Delhi. 9. Subodh Rani and Chamar, K.V. (2016), Levels of Road Connectivity in Haryana, Punjab Geographer, Vol.12, October, Punchkula. 10. Taaffe, E.J. and Gauthier, H.L. (1973) Geography of Transportation, Prentice Hall Englewood Cliff, New Jersey. 11. Vaidya, B. C. (1998), Reading's in Transport Geography, Devika Publications, Delhi.			



Syllabi for Post Graduate Program in Geography

Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Hydrology	Course Code	25GEO203DS09
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand about different physical aspects of water as a natural resource. CLO 2: have a systematic knowledge of different state of water occurrences. CLO 3: have a base of wide range of ideas and current issues related to hydrology.			
Unit 1: Introduction to hydrologic science: History of hydrology; Hydrology as a science; Basic hydrologic concepts: Physical quantities and laws; hydrologic systems.			
Unit 2: Drainage Basin- Characteristics of drainage basin: size of the Basin, Shape of the basin, compactness ratio, form factor, type and arrangement of stream channels.			
Unit 3: Precipitation-Process; Types, Forms. Mean Areal Depth of precipitation: Arithmetic average method, Thiessen polygon method and Isohyetal method; Intensity of rainfall.			
Unit 4: Evaporation- Actual evaporation, Potential evaporation; Estimation of actual and potential evaporation; Thornthwaite's book-keeping method of climatic water balance. Runoff-Factor affecting run off.			
References: 1. Davie, T. (2008), Fundamentals of Hydrology, Routledge, London. 2. Manning, J. C. (1997), Applied Principles of Hydrology, Prentice Hall, New Jersey. 3. Digman, L. S. (2002), Physical Hydrology, Prentice Hall, New Jersey. 4. Raghunath, H. M. (1990), Hydrology, Wiley Eastern Limited, New Delhi. 5. Garg, S. K. (1988), Hydrology and Water Resources Engineering, Khanna Publishers.			



Syllabi for Post Graduate Program in Geography

Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Oceanography	Course Code	25GEO203DS10
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand basics of ocean physiography. CLO 2: learn the impact of oceans on climate and environment. CLO 3: understand the economy of oceans.			
Unit 1: Definition and scope of oceanography, major sea voyages, oceanography and other sciences; distribution pattern of land and sea, origin of ocean basins: Wegner's drift hypothesis, and sea floor spreading and Plate Tectonics.			
Unit 2: Depth of ocean, ocean floor profile-continental shelf, slope, ridge and deeps, abyssal plains; submarine canyons; coral reefs-origin and distribution; ocean deposits; configuration of ocean floors of Indian Ocean and Atlantic Ocean.			
Unit 3: Temperature of oceans; salinity in oceans; density of oceans; dynamics of ocean currents; currents of Atlantic, Pacific and Indian Ocean; tides and origin; Tsunami.			
Unit 4: Ocean currents and their impact on climate and economy; oceans as source of food, mineral and energy resources; sea-level changes; evidences, mechanism and impact; maritime laws.			
References: 1.Denny, M., (2008), How the Ocean works: An introduction to Oceanography, Princeton University Press, New Jersey. 2.Garrison, T., (1995), Essentials of Oceanography Wardsworth Pub. Co., London. 3.S. Kerhsaw., (2004), Oceanography: An Earth Science Perspective, Routledge, UK. 4.Sharma, R.C. and V. V et. al., (1986), Oceanography for Geographers, Chatanaya Publishing, Allahabad. 5.Shepart, F., (1969), The Earth Beneath the Sea, Athneum, Rev. ed., New York. 6.Singh, Savindra., (2014), Oceanography, Pravalika Publications, Allahabad. 7.Thurman, V. Harold., (1987), Essentials of Oceanography, A Bell & Howell Company, Columbus/ Toronto/ Sydney. 8.Von Arx, W.S., (1962), An Introduction to Physical Oceanography, Addison, Wesley, New York			

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Syllabi for Post Graduate Program in Geography

Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Social Geography	Course Code	25GEO203DS11
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: have knowledge about the theoretical, philosophical and conceptual base of social geography. CLO 2: evaluate and interpret the impact of geographical factors on social issues and vice versa. CLO 3: know the global perspective on social issues, considering how they vary across different regions and cultures.			
Unit 1: Social Geography: Nature, meaning & Development of Social Geography; Philosophical bases of Social Geography: Positivism, Humanism and Feminism.			
Unit 2: Towards a social geography of India; Concept of Social differentiation, socio cultural regions of India, Socio-Cultural Regions of India; Linguistic Elements in India. Caste System in India.			
Unit 3: Social Well-being: Concepts of social wellbeing, Human Development Index. Human Development in India. Factors of social change.			
Unit 4: Gender Issues of social Well Being: Female Literacy, family Planning, Women Health. Sex Ratio, Women Empowerment. Women Employment.			
References: 1. Ahmad, Aijazuddin (1999), Social Geography, Rawat, New Delhi. 2. Dreze, Jean and Amartya Sen (1996), Economic Development and Social Opportunity, Oxford University Press, New Delhi. 3. Gregory, D and Larry (eds) Social Relations and Spatial Structures, Oxford, Macmillan			

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Syllabi for Post Graduate Program in Geography

Semester – 3rd

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Photogrammetry, Remote Sensing & GIS	Course Code	25GEO203SE01
Hours per Week	8	Credits	4 (0+0+4)
Maximum Marks	100 External: 70 Written Test: 60 Viva-Voce : 10 Internal: 30 Lab work Record File: 25 Attendance: 05	Time of Examinations	4 hrs.
Note: (i) The question paper shall contain eight questions in all, including two questions from each unit. Candidate(s) are required to attempt four questions in all selecting at least one question from each unit. All questions carry equal marks. (ii) Candidates shall produce their lab work record before the Board of Examiners at the time of their viva-voce examination.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: have the skill of air photo interpretation. CLO 2: know the mapping of information from satellite images. CLO 3: have the skill of spatial data handling and processing through GIS techniques.			
Unit 1: 1. Stereo Vision Test, Orientation of stereo model under Mirror Stereoscope 2. Determination of scale on an aerial photograph 3. Measurement of height of an object on single vertical aerial photograph 4. Preparation of stereogram, stereotriplet and mosaic from aerial photographs			
Unit 2: 1. Air photo Interpretation: Identification, mapping and interpretation of natural and cultural features. 2. Satellite image interpretation: LISS-III, LISS-IV, Panchromatic, CARTOSAT, True color & FCC. 3. Land use/Land cover mapping on the basis of above-mentioned satellite images. 4. Identification, mapping and interpretation of natural and cultural features on above-mentioned at 2 satellite images.			
Unit 3: 1. Spatial data import and export in GIS. 2. Georeferencing and reprojection of spatial data. 3. Shape file creation and digitization of geographic features. 4. Linking attribute data with spatial data.			
Unit 4: 1. Spatial analysis: Raster & vector overlay, Buffer analysis. 2. Digital surface modelling: DSM & DTM, Spatial Interpolation: IDW & Kriging. 3. Query building: Raster & vector. 4. Map layout design: Quantitative and qualitative.			
References: 1. A.M. and S.K. Ghosh. (2006), Remote Sensing and Geographical Information System, Narosa Publishing House, New Delhi. 2. Bhatta B. (2023), Remote Sensing and GIS, Oxford University Press, New Delhi. 3. Chang, K.T. (2019), Introduction to Geographic Information Systems, Tata McGraw-Hill Publishing Company Ltd, New York.			

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4. Chauniyal, D.D. (2016), Principles of Remote Sensing and Geographical Information System (Hindi version), Sharda Pustak Bhawan, Allahabad.
5. Gopi S, R. Sathikumar, N. Madhu. (2018), Advances Surveying: Total Station, GPS, GIS and Remote Sensing, Person India Education Services Pvt. Ltd, Noida.
6. Laurini R. Thompson D. (1992), Fundamentals of Spatial Information Systems, Academic Press Limited, New York
7. Paul B. (2019), GIS Fundamentals: A First Text on Geographic Information Systems (6th edition), Eider Press, USA.
8. Rampal, K.K. (1999), Handbook of Aerial Photography and Interpretation, Concept Publishing Co., New Delhi.
9. Reddy, M. A. (2012), Remote Sensing and Geographic Information Systems, B S Publications, Hyderabad.

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Syllabi for Post Graduate Program in Geography

Semester – 4th
Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geographical Thought	Course Code	25GEO204DS01
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

- CLO 1: encompasses a deep exploration of the evolution and theories shaping geographical understanding.
- CLO 2: fostering critical thinking and a nuanced appreciation for the discipline's theoretical frameworks.
- CLO 3: delves into the rich tapestry of geographical thought, examining key thinkers and their contributions.

Unit 1:

Development of Geographical Knowledge: classification of knowledge; place of geography in the classification of knowledge. Relationship of geography with other natural and social sciences; subject matter of geography. Pre-scientific geographical ideas and emergence of scientific geography; influence of Kant.

Unit 2:

Classical Period of Modern Geography: Humboldt and Ritter; legacy of Humboldt and Ritter. Dualisms and dichotomies: physical and human, systematic and regional, and general and particular. Unification of Geography- Richthofen and Hettner. Social Origins of Environmental Determinism. Possibilism, Regional concept, Vidal de la Blache.

Unit 3:

Modern Geography since 1950s: Quantitative revolution and positivism; locational analysis. Reactions to scientific positivism and development of 'human centred theories; Behavioural, humanistic and radical approaches.

Unit 4:

Beginnings of Contemporary Geography: Structuralism and structuration; post- structural and post-colonial critique; Feminist and gender geography; the post-modern perspectives in geography; geography, neoliberalism and globalisation.

References:

1. Dickinson, R.E. (1969), Makers of Modern Geography. London: Routledge and Kegan Paul.
2. Dickinson, R.E. (1976), The Regional Concept. London: Routledge and Kegan Paul.
3. Gosal, Gurdev Singh. (2015), History of Geographic Thought. Chandigarh: Panjab University.
4. Gregory, D. (1978), Ideology, Science and Human Geography. London: Hutchinson.
5. Gregory Ken J. (2000), The Changing Nature of Physical Geography. New York: Oxford University Press.
6. Hartshorne, R. (1939), The Nature of Geography. Lancaster, P.A.: Association of American Geography (Indian reprint: Rawat Publications).
7. Hartshorne, R. (1959), Perspective on the Nature of Geography. Chicago: Rand McNally.
8. Holt-Jensen, A. (2009), Geography: History and Concepts- A Student's Guide. London: Sage.
9. Inkpen Robert & Graham Wilson (2013), Science, Philosophy and Physical Geography. 2nd edn. London: Routledge.
10. James, P.E. (1972), All Possible Worlds: A History of Geographical Ideas. Indianapolis: Odyssey Press. (Latest Edition (2005), is authored by Geoffrey J Martin).
11. James, P.E & Jones, C.F. (1954), American Geography: Inventory and Prospects. Syracuse: Syracuse Univ. Press & New York: John Wiley.
12. Johnston, R.J. (2005), Geography & Geographers: Anglo-American Human Geography since 1945.

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London: Arnold

13. Johnston, Ron J. et al. (2000), Dictionary of Human Geography. Oxford: Blackwell. Nayak, A & Alex Jeffrey.
14. Peet, R. (1978), Radical Geography. London: Methuen.
15. Peet, R. (1998), Modern Geographical Thought. London: Blackwell.
16. Stoddart, D.R. (1981), Geography, Science and Social Concern. Oxford: Blackwell.

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Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Research Methodology	Course Code	25GEO204DS02
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: formulate critically important research questions.

CLO 2: understand quantitative and qualitative research methodologies.

CLO 3: write a research report.

Unit 1:

Meaning and Purpose of Research? Types of Research; Social Science Research; Identification of Research Question and Literature Surveying; Methods and Methodology in Human Geography.

Unit 2:

Scientific Method in Human Geography; Analytical Steps of the Scientific Method; The Routes of Scientific Explanation: Deductive and Inductive forms of reference; Explanation in Geography: Some Problems

Unit 3:

From Quantitative to Qualitative Geography; Qualitative Data Production: Interviews (Process of Interviewing, Structure interviews and informal surveys; Depth Interviewing and Working with Groups); Observation (Participant Observation and Ethnography).

Unit 4:

Process of Research Report Writing; Reference styles (Harvard, Chicago), Ethics in Research.

References:

1. Dey, Ian (1993), Qualitative Data Analysis, London: Routledge.
2. Eyles, John and David M. Smith (1988), Qualitative Methods in Human Geography, Oxford: Polity Press.
3. Harvey, David (1969), Explanation in Geography, London: Edward Arnold.
4. Hubbard, Phil et.al. (2002), Thinking Geographically, London: Continuum.
5. Hoggart, Keith et.al. (2002), Researching Human Geography, London: Arnold.
6. Johnston, R.J. and J.D. Sidaway (2004), Geography and Geographers, London: Arnold.
7. Kitchin, Rob and Nicholas J. Tate (2000), Conducting Research in Human Geography, London: Prentice Hall.
8. Krishan, Gopal and Nina Singh (2016), Researching Geography: The Indian Context, New Delhi: Routledge India.
9. Limb, Melanie and Claire Dwyer (2001), Qualitative Methodologies for Geographers, London: Arnold.
10. Robinson, Guy M. (1998), Methods and Techniques in Human Geography, New York: John Wiley.
11. Seale, Clive (ed.) (2008), Social Research Methods, London: Routledge (Indian Edition).
12. Somekh, Bridget and Cathy Lewin (eds.) (2005), Research Methods in the Social Sciences, New Delhi: Vistaar Publications.

Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geography of Development	Course Code	25GEO204DS04
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand the meaning, conceptual grounding, and approaches of this branch. CLO 2: develop a comprehensive understanding of various theories of development. CLO 3: know the concept of poverty, human and sustainable development.			
Unit 1: Definition, Measuring the Geography of Development, relationship between geography and development, concepts, principles, strategies and approaches to development – unified approach, basic needs approach, agropolitan approach, Human approach.			
Unit 2: Developed and developing economies, Culture and development, Rural agriculture development, Urban industrial development.			
Unit 3: Theories and strategies of development: Keynesian Growth theory, World system theory, Dependency theory, Intellectual Dependency theory. Modernization theory: socio cultural modernization theory, economic modernization theory, psycho cultural theories of modernization.			
Unit 4: Poverty, Indices of human development, Geographies of inequalities and uneven development, Sustainable development.			
References: 1. Dutta, R. and Sundaram, K. P. M. (2002), Indian Economy, S. Chand Publications, New Delhi 2. Hodder, R. (2000), Development Geography, Routledge, London 3. Potter, R. B., Binns, T., Elliot, J. A. and Smith, D. (1999), Geographies of Development, Longman, London 4. UNDP (2002), Human Development Report, Oxford University Press, Oxford 5. Desai, V. and Potter, B. R. (Eds.) (2011), The Companion to Development Studies, A Hodder-Viva Edition, London 6. Haynes, J. (2008), Development Studies, Polity Short Introduction Series 7. Peet, R. (2005), Theories of Development, Rawat Publications, Jaipur 8. Kant, S. and Singh, N. (2015), Geography Development Public Policy, RK Books, New Delhi			

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Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Water Resource and Management	Course Code	25GEO204DS05
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.

Note:

Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.

Course Learning Outcomes (CLO):

Students would be able to:

CLO 1: understand the components of the water cycle are influenced by human activities.

CLO 2: know the impact of irrigation, Industrialization and urbanization on water resources and contemporary water crisis.

CLO 3: have knowledge of conservation and effective management of water resources.

Unit 1:

Origin of Water on Earth; Water as a global resource; Hydrological Cycle; Human impact on the hydrologic cycle.

Unit 2:

Groundwater Formation; Ground water occurrence; Rock properties affecting groundwater; Problems of groundwater utilization: Groundwater quality, Salinity, Waterlogging and groundwater depletion; Impacts of groundwater depletion on: Agriculture, Society and environment.

Unit 3:

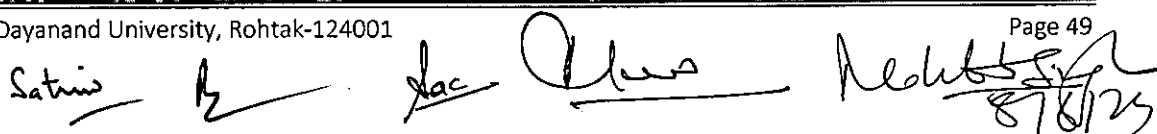
Utilization of water resources - Availability and consumption patterns of water in industrial, agricultural and municipal sectors; Issues and challenges of water utilization; Water stress and scarcity; Water footprint and water pricing; Water justice towards sustainable development.

Unit 4:

Water pollution: Types, Sources, Cause and effects; Water resource conservation, management and development: Concept, Functions and strategies, Current and future challenges in India.

References:

1. Boelens, R., Perreault, T., & Vos, J. (2018), Water Justice. Cambridge University Press. Hoboken, New Jersey.
2. Chorley, R.J. (1979), Water, Earth and Man, Methuen, London.
3. Chouhan, T.S. (2019), Drought Proofing and Water Resource Management, Scientific Publishers, New Delhi.
4. Chatterjee, S.N. (2008), Water Resources, Conservation and Management, Atlantic Publishers & Distributors New Delhi.
5. Daniel P. Loucks and E.V. Beek, (2005), Water Resources Systems Planning and Management: An introduction to Methods, Models and Applications, UNESCO. Publishing.
6. Grafton, R. Quentin, (2011), Water Resources Planning and Management (eds), Cambridge University Press, England.
7. Grigg, N. S. (2023), Water Resources Management: Principles, Methods and Tools. John Wiley & Sons. Hoboken, New Jersey.
8. Jeet, Inder. (2005), Groundwater Resources of India- Occurrence, Utilization and Management, Mittal Publication, New Delhi.
9. Madhav, S. et.al. (2023), Water Resources Management for Rural Development: Challenges and Mitigation (eds), Elsevier publication.
10. Molden, D. (2013), Water for Food Water for life: A Comprehensive Assessment of Water Management in Agriculture. Taylor and Francis.
11. Molle, F., & Berkoff, J. (2007), Irrigation Water Pricing: The Gap Between Theory and Practice. CABI.
12. Sedlak, D. (2014), Water 4.0: The Past, Present, and Future of the World's Most Vital Resource. Yale University Press.



Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

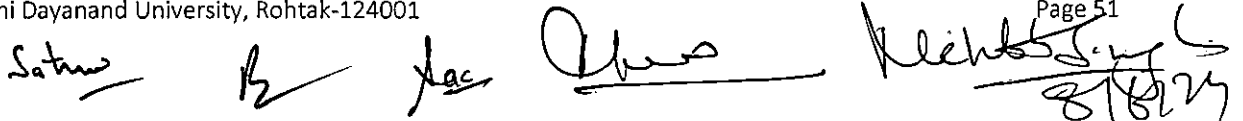
Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Geography of Rural Settlements	Course Code	25GEO204DS06
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: have knowledge about the historical development, patterns, types and functional systems of rural settlements. CLO 2: know about the morphology of rural settlements. CLO 3: understand the factors and rural settlement planning in India.			
Unit 1: Definition, Nature and Scope of Rural Settlement Geography; Trends in Rural Settlement Geography with special reference to India; Approaches to Rural Settlement Geography.			
Unit 2: Culture-Historical Perspective; Archaeological finds and settlements - Mesopotamia, the Nile valley, the Indus valley; Historical Development of Rural Settlements (based on major cultural periods) in India. Analysis of Place Names and environments.			
Unit 3: Morphology of Rural Settlements in India: Religio-Ritual Model, Secular-Dominance Model; Types and Patterns of Rural Settlements in India and Causes of Diverse Types of Rural Settlements.			
Unit 4: Functions of Rural Settlements; Rural service centers; their nature and hierarchy; Basics of Rural Settlement Planning; Rural Settlement Planning of India.			
References: 1. Alam, S. M. et. al. (1982), Settlement System of India, Oxford and IBH Publication Co. New Delhi. 2. Chisholm, M. (1967), Rural Settlements and Land Use, John Wiley, New York. 3. Clout, H.D. (1977) Rural Geography of Settlements, Mac Donald & Evans, New York. 4. Hudson, F.S. (1976), A Geography of Settlements, Mac Donald & Evans, New York. 5. Mandal, R.B. (1988), System to Rural Settlements in Developed Countries, Concept Publication, New Delhi. 6. Mandal, R.B. (2001), Introduction to Rural Settlements, Concept Publication, New Delhi. 7. Misra, H.N. (1987) Rural Geography, Vol. IX, Contributions to Indian Geography, Heritage Publishers, New Delhi. 8. Singh, R.L. and K.N. eds. (1975), Readings in Rural Settlements Geography, NGSI, Varanasi 9. Singh, R.L. (1976), Geographic Dimensions of Rural Settlements, NGSI, Varanasi 10. Singh, R.Y. (1994), Settlements, NGSI, Varanasi. 11. Singh, R.Y. (2005), Adhiwas Bhugol, (in Hindi) Rawat Publication, New Delhi. 12. Wanmali, S. (1983), Service Centres in Rural India, B.R. Publication, New Delhi.			

Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Agricultural Geography	Course Code	25GEO204DS07
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: understand major concepts, factors affecting agricultural land use, agricultural system of the world and the emerging scenario in agriculture. CLO 2: know the agricultural systems of the world and about agricultural models. CLO 3: have a base of wide range of ideas, current issues and would gain an insight into the world trade in agriculture and address the question of sustainable agriculture.			
Unit 1: Definition, nature, scope, and significance of agricultural geography; approaches to the study of agriculture in geography- commodity, deterministic, systematic, and regional.			
Unit 2: Factors influencing agricultural patterns - Physical factors; terrain, climate, soils and water resources; institutional factors; demographic, land holding, farm family structure, caste, religion, peasant way of life, infrastructural services; technological factors, irrigation, mechanical inputs.			
Unit 3: Agricultural system of the world: Whittlessey's classification- shifting cultivation, plantation farming, Mediterranean agriculture, commercial grain farming; agricultural region-concept and techniques; Normative technique, empirical technique, single element technique and statistical technique.			
Unit 4: Nature, significance and classification of agricultural models; economic and descriptive models; food security; sustainable agriculture; WTO and Agriculture.			
References: 1. Alexander, J.W. (1968), Economic Geography, Prentice Hall., New Jersey: 2. Grigg, D.B. (1978), The Agricultural Systems of the World: An Evolutionary Approach, Cambridge University Press, Cambridge. 3. Hussain M. (1997), Systematic Agricultural Geography, Rawat Publications, Jaipur. 4. Ilbery, B.W. (1985), Agricultural Geography, Oxford University Press, Oxford. 5. Morgan, B.W. and Munton, J. C. (1971), Agricultural Geography, Methuen, London. 6. Shafi, M. (2006), Agricultural Geography, Pearson Education, New Delhi. 7. Singh, Jasbir, (2003), Agricultural Geography, 3rd edn, Oxford. New Delhi. 8. Singh, Jasbir, and S. S. Dhillon, (1984), Agricultural Geography, Tata McGraw Hill, New Delhi.			



Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Soil Geography	Course Code	25GEO204DS08
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: have knowledge about the soils, its properties, development and degradation. CLO 2: understand the management and conservation of soil resource with reference to India. CLO 3: know the linkages between soil, environment and biomes along with its importance.			
Unit 1: Soil Geography: meaning, nature, and scope; its relationship with Pedology. Soil forming factors: parent material, organic, climatic, topographic, and time; Soil components: inorganic materials, organic matter, soil air, and soil water.			
Unit 2: Processes of soil formation and soil development: physical, biotic and chemical. Soil Profile and its development; Pedogenic Regimes: podsolization, laterization, calcification and salinization.			
Unit 3: Physical properties of soils: morphology, texture, structure, water, air, temperature and other properties of soil; Chemical properties of soil and soil reaction; Genetic classification of soils; Taxonomic classification of soils: zonal, azonal and intra-zonal soils, their characteristics. Spatial distribution of Indian soils.			
Unit 4: Evaluation of land and soil: Parametric and non-parametric systems, Land capability classification, Soil survey and Mapping, field study of soil profile and their characteristics; Soil erosion, degradation, and conservation with special reference to India.			
References: 1. Backman, H.O and Brady, N.C. (1960), The Nature and Properties of Soils, McMillan, New York. 2. Basile, R.M. (1971), A Geography of Soils, William C. Brown, Dubuque, Ia. 3. Bennet, Hugh H. (1939), Soil Conservation, Mc Graw Hill, New York. 4. Bunting, B. T. (1973), The Geography of Soils, Hutchinson, London. 5. Clarke G.R. (1957), Study of the Soil in the Field, Oxford University Press, Oxford. 6. DeN. K. and Ghosh, P. (1993), India: A Study in Soil Geography, Sribhumi Publishing Co.; Calcutta. 7. Foth H. D. and Turk, L. M. (1972), Fundamentals of Soil Science, John Wiley, New York. 8. Govinda Rajan, S.V. and Gopala Rao, H. G. (1978), Studies on Soils of India Vikas, New Delhi. 9. James S. Gardiner (1977), Physical Geography, Harper's College Press, New York. 10. McBride, M. B. (1999), Environmental Chemistry of Soils, Oxford University Press, New York.			

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Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Rural Geography	Course Code	25GEO204DS09
Hours per Week	4	Credits	4 (4+0+0)
Maximum Marks	100	Time of Examinations	3 hrs.
Note: Examiner will set nine questions and the candidates will be required to attempt five questions in all. Question number one will be compulsory containing seven short answer type questions (of 2 marks each) from all units. Further, examiner will set two questions from each unit and the candidates will be required to attempt one question from each Unit. All questions will carry equal marks.			
Course Learning Outcomes (CLO): Students would be able to: CLO 1: have the knowledge about infrastructure, various types of houses and their building materials. CLO 2: aware about developmental issues in rural India. CLO 3: know the various types of building materials used, development issues, and untouchability and Dalits in rural India.			
Unit 1: Nature and scope of rural geography; Infrastructure in rural India: Irrigation, Electrification, and Roads.			
Unit 2: Rural House Types: House Types based on Building Materials, Size and Shape as basis for classification, House Types based on Socio-Economic Status, Regional Patterns of Houses in India.			
Unit 3: Issues of Rural Development in India: Land Reforms, Agricultural land-use, Distribution of Landholdings, Rural Poverty, Rural Unemployment.			
Unit 4: Untouchability and Dalits in Rural India: Some Theoretical Explanations, Anti Untouchability Movements: A Historical Overview; Scheduled Castes in Rural India, Patterns of Female Work Participation of Scheduled Castes, Women Empowerment in Rural India.			
References: 1. Alam, S. M. et. al. (1982), Settlement System of India, Oxford and IBH Publication Co. New Delhi. 2. Chisholm, M. (1967), Rural Settlements and Land Use, John Wiley, New York. 3. Clout, H.D. (1977) Rural Geography of Settlements, Mac Donald & Evans, New York. 4. Hudson, F.S. (1976), A Geography of Settlements, Mac Donald & evans, New York. 5. Mandal, R.B. (1988), System to Rural Settlements in Developed Countries, Concept Publication, New Delhi. 6. Mandal, R.B. (2001), Introduction to Rural Settlements, Concept Publication, New Delhi. 7. Misra, H.N. (1987) Rural Geography, Vol. IX, Contributions to Indian Geography, Heritage Publishers, New Delhi. 8. Singh, R.L. and K.N. eds. (1975), Readings in Rural Settlements Geography, NGSI, Varanasi 9. Singh, R.L. (1976), Geographic Dimensions of Rural Settlements, NGSI, Varanasi 10. Singh, R.Y. (1994), Settlements, NGSI, Varanasi. 11. Singh, R.Y. (2005), Adhiwas Bhugol, (in Hindi) Rawat Publication, New Delhi. 12. Wanmali, S. (1983), Service Centres in Rural India, B.R. Publication, New Delhi.			

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8/6/24

Syllabi for Post Graduate Program in Geography

Semester – 4th

Session: 2025-26

Name of Program	MA Geography	Program Code	GEO2
Name of the Course	Fieldwork and Report Writing	Course Code	25GEO204SE01
Hours per Week	8	Credits	4 (0+0+4)
Maximum Marks	100 External: 70 Written Test: 60 Viva-Voce : 10 Internal: 30 Lab work Record File: 25 Attendance: 05	Time of Examinations	4 hrs.
Note:			
(i) The question paper shall contain eight questions in all, including two questions from each unit. Candidate(s) are required to attempt four questions in all selecting at least one question from each unit. All questions carry equal marks.			
(ii) Candidates shall produce their lab work record before the Board of Examiners at the time of their viva-voce examination.			
Course Learning Outcomes (CLO):			
Students would be able to:			
CLO 1: have the knowledge about infrastructure, various types of houses and their building materials.			
CLO 2: aware about developmental issues in rural India.			
CLO 3: know the various types of building materials used, development issues, and untouchability and Dalits in rural India.			
Unit 1:			
Field Work in Geographical studies- Role, Value and Ethics; Field techniques - Merits and Demerits; Source of Data- Primary and Secondary; Field survey: Types; Issues and challenges.			
Unit 2:			
Primary data collection: Observation method, interview method, through questionnaire, through schedule and other methods; Identification of research problem; Preparing research design: aims and objectives, methodology.			
Unit 3:			
Sampling: Define sample, Types of samples, Sampling process; data collection through field visit.			
Unit 4:			
Processing and analysis of data: Classification; tabulation; Representation of data through: Graphs; Diagrams and maps; Data analysis, interpretation and report writing.			
References:			
1. Ahuja, Ram (2003), Social Survey and Research (Hindi version), Rawat Publications, Jaipur.			
2. Basotia, G. R. and Sharma, K. K. (2002), Research Methodology, Mangal Deep Publications, Jaipur.			
3. Creswell J. (1994), Research Design: Qualitative and Quantitative Approaches, Sage Publications.			
4. Dikshit, R. D. (2003), The Art and Science of Geography: Integrated Readings, Prentice- Hall of India, New Delhi.			
5. Evans M. (1988), "Participant Observation: The Researcher as Research Tool" in Qualitative Methods in Human Geography, eds. J. Eyles and D. Smith, Polity.			
6. Gideon Sjoberg and Roger Nett (1992), A Methodology for Social Research, Rawat Publications, Jaipur.			
7. Mukherjee, Neela (1993), Participatory Rural Appraisal: Methodology and Application. Concept Pubs. Co., New Delhi.			
8. Mukherjee, Neela (2002), Participatory Learning and Action: with 100 Field Methods. Concept Pubs. Co., New Delhi.			
9. Robinson A. (1998), "Thinking Straight and Writing That Way", in Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences, eds. by F. Pryczak and R. Bruce Pryczak, Publishing: Los Angeles.			
10. Special Issue on "Doing Fieldwork" The Geographical Review 91:1-2 (2001).			
11. Stoddard R. H. (1982), Field Techniques and Research Methods in Geography, Kendall/Hunt.			
12. Wolcott, H. (1995), The Art of Fieldwork, Alta Mira Press, Walnut Creek, CA.			

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