Department of Geography

School of Earth Science

Course Contents & Syllabus

Four Year Under Graduate Programme (FYUP)
Under NEP 2020
for Students enrolled in 2025-26 Academic Session

Hemvati Nandan Bahuguna Garhwal University

(A Central University)

Srinagar Garhwal-246174 (Uttarakhand)

Head
Department of Geography
School of Earth Science
H.N.B. Garhwal University
Srinagar (Uttarakhand)

Course Structure and Credit Allocation

(For Practical based Subjects)

First Year (NHEQF Level-4.5)									
Course Category	**Semester-I**					**Semester-II**			
	Subject	**Paper**	**Credits**			**Subject**	**Paper**	**Credits**	
			T	**P**				**T**	**P**
Discipline Specific Core	DSC Subject-I (Major)	Physical Geography & Practical	2	2		DSC Subject-I (Major)	Human Geography & Practical	2	2
	DSC Subject-II (Minor)		2	2		DSC Subject-II (Minor)		2	2
MD/ID Subject-1	MD/ID-I	Basics of Geography	2	2		MD/ID-II	Geography of World	2	2
MD/ID Subject-2	MD/ID-I	Basics of Social Work /Mental Health & Well-being	2	2		MD/ID-II	Basics of Social Work /Mental Health & Well-being	2	2
SEC/ AEC	Field work/SEC/ Communication Skills **Or** AMSC/Field Work/SEC	Communication Skills	2	-		AMSC/Field Work/SEC **Or** Field work/ SEC/ Communication Skills	AMSC*	2	-
VAC	Understanding and Connecting with Environment **Or** Life Skills & Personality development	Understanding and Connecting with Environment	2	--		Understanding and Connecting with Environment **Or** Life Skills & Personality Development	Life Skills & Personality Development	2	--
Total			12	8				12	8
NHEQF Level-4.5	Student on exit after successfully completing first year (i.e., securing minimum required 40 credits + 4 Credits in one Vocational Course/Skill-Enhancement Course of 4 credits) will be awarded "Undergraduate Certificate" of one year, in related field/discipline/subject.								

- The student may opt for any one course from Field Work/ Skill Enhancement Course (SEC)/ Communication Skills in one semester, and any one course from Additional Multidisciplinary Skill Course (AMSC)/ Field Work/ Skill Enhancement Course (SEC) in the other semester.
- Field Work/Discipline Specific Skill Enhancement Course (SEC): Student may opt SEC/Field Work related to any discipline subject opted by her/him as a DSC in the first year.
- **Field Work**: In addition to providing students with practical, experience-based learning, field work aims to expose them to real-world socio-economic and societal challenges, allowing them to bridge the gap between theory and practice and develop effective solutions to real-life problems.
- ***AMSC**: Additional Multidisciplinary Skill Course (is offered as SEC)
  Following courses are offered under AMSC, University may add new courses under AMSC in future:
  1. Plant Nursery Development and Management
  2. Basic Yoga Practices
  3. Physical Education and Sports Management
  4. Regional Folklores and their Cultural Context
  5. Indian Traditional Music
  6. Tour and Travel Operations
- **Communication Skills (AEC):** 'Communication Skills' course will be offered in Hindi, English and Sanskrit Languages, student may opt any one language for studying the course
- **Life Skill & Personality Development (VAC)**
- **Understanding and Connecting with Environment (VAC)**

Note: Student can opt Geography subject as Discipline Specific Core (Major or Minor) or as interdisciplinary/ multidisciplinary (MD/ID) Subject-1 or 2.

*Students seeking admission, opting for two core papers from two different subjects/disciplines, must select their MD/ID subject from a subject/discipline other than those two core subjects/disciplines chosen at the time of admission and one that was not studied at the 12th Class or equivalent grade level.

Students seeking admission will have to opt two (02) interdisciplinary/ multidisciplinary (MD/ID) subjects in the first year. In the second year the student will continue with one MD/ID only.

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Bachelor of Arts/ Science (B.A./B.Sc.) in Geography

Program Learning Outcomes (PLO) for B.A. Program

The Bachelor of Arts (B.A.) program aims to provide a multidisciplinary, flexible, and holistic education that fosters intellectual growth, critical thinking, and societal contributions, in line with the UGC's National Education Policy (NEP) 2020 and the UGC (Minimum Standards of Instruction for the Grant of Undergraduate Degree and Postgraduate Degree) Regulations, 2025. Upon successful completion of the B.A. program, graduates will be able to:

1. **Demonstrate Comprehensive Knowledge**: Students will acquire in-depth understanding of core concepts, theories, and methodologies in respective discipline while integrating cross-disciplinary perspectives.
2. **Critical Thinking and Problem-Solving Abilities**: Students will apply analytical and critical thinking skills to evaluate complex social, cultural, economic, and political issues, and propose innovative, ethical, and practical solutions.
3. **Effective Communication and Interpersonal Skills**: Students will exhibit proficiency in written, oral, and visual communication to articulate ideas, research findings, arguments clearly and persuasively in diverse professional and social contexts.
4. **Research and Analytical Abilities**: Students will design and execute research inquiries using appropriate qualitative and quantitative methods, guided by theoretical and conceptual frameworks, to address real-world problems.
5. **Ethical and Social Responsibility**: Students will demonstrate an appreciation toward ethical practices, social justice, and sustainable development, contributing to the common good and addressing national and global challenges.
6. **Interdisciplinary Approach and Competence**: Students will integrate knowledge from related fields to gain a broader perspective on social issues and foster multidisciplinary problem-solving.
7. **Employability and Lifelong Learning**: Students will develop professional skills, including teamwork, leadership, and adaptability, to pursue diverse career paths in government, non-profits, academia, or private sectors, and engage in lifelong learning to stay relevant in a dynamic world.
8. **Global and Cultural Awareness**: Students will understand and appreciate global and cultural diversity, applying this knowledge to engage constructively in local, national, and international contexts.

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Syllabus of B.A./B.Sc. in Geography as per Four Year Under Graduate Programme (FYUP) Under NEP 2020 for Students enrolled in 2025-26 Academic Session

Applicable to B.A/ B.Sc. I and II Semesters Session 2025-26

Semester I	Major Subject	Course Name	Credit
Discipline Specific Core	DSC Subject-I (Major)	Physical Geography	2
	DSC Subject-I (Major) Practical	Practical Geography-I	2
	DSC Subject-II (Minor)	Physical Geography	2
	DSC Subject-II (Minor) Practical	Practical Geography-I	2
MD/ID Subject-1	MD/ID-I	Basics of Geography-I with Practical	2+2
MD/ID Subject-2	MD/ID-I	Basics of Social Work /Mental Health & Well-being with Practical	2+2
SEC/ AEC	Field work/SEC/ Communication Skills **Or** AMSC/Field Work/SEC	Communication Skills	2
VAC	Understanding and Connecting with Environment **Or** Life Skills & Personality development	Understanding and Connecting with Environment	2
	Total		**20**
Semester II	**Major Subject**	**Course Name**	**Credit**
Discipline Specific Core	DSC Subject-I (Major)	Human Geography	2
	DSC Subject-I (Major) Practical	Practical Geography-II	2
	DSC Subject-II (Minor)	Human Geography	2
	DSC Subject-II (Minor) Practical	Practical Geography-II	2
MD/ID Subject-1	MD/ID-I	Basics of Geography-II with Practical	2+2
MD/ID Subject-2	MD/ID-I	Basics of Social Work /Mental Health & Well-being with Practical	2+2
SEC/ AEC	AMSC/Field Work/SEC **Or** Field work/ SEC/ Communication Skills	AMSC*	2
VAC	Understanding and Connecting with Environment **Or** Life Skills & Personality Development	Life Skills & Personality Development	2
	Total		**20**

Note: The MD/ID Subject-2 along with SEC/ AEC and VAC courses, will be offered by the University.

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

Course- DSC Subject -Major and Minor

(Theory)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **First**
Subject: **Geography**		
Course Code: **GEOG/DSC-MJ001**	Course Title: **PHYSICAL GEOGRAPHY**	

CO code **Course Outcome (CO)**

CO1: Students will ***learn*** the meaning, nature, and scope of Physical Geography.

CO2: Students will **understand** the structure of the Earth, plate tectonics, rocks, weathering, and geomorphic agents.

CO3: Students will **apply** atmospheric concepts to heat balance, winds, cyclones, monsoon, and climatic classifications.

CO4: Students will **analyze** hydrosphere processes such as the hydrological cycle, ocean relief, tides, currents, salinity, and coral reefs.

CO5: Students will **evaluate** the cycle of erosion theories of Davis and Penck.

Credits: 2	*DSC-MAJOR*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-T-2/W***

Unit	**Topics**
UNIT-I	Meaning Nature and Scope of Physical Geography, Approaches to study Physical Geography
UNIT-II	Origin of the Earth; Components of Earth System. Interior of the Earth; Plate Tectonics, Rocks. Weathering; Work of river, wind, glacier and underground water and its associated features. Cycle of Erosion – Davis and Penck
UNIT-III	Atmosphere – Heat Balance; Wind types and pressure; Cyclone; Monsoon- jet streams; Climatic Classification (Koppen).
UNIT-IV	Hydrosphere –Hydrological Cycle; Ocean Bottom Relief Features; Tides; Currents and Salinity, Coral reef.

Suggested Readings:

1. Conserve H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabbler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
6. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley &Sons, New York.
9. Savindra Singh: Physical Geography (Hindi, English)
10. https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=KwH6LnSyFhsLI6M9Z0+tvw==
11. https://ncert.nic.in/textbook.php?kegy2=0-14

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks** by **internal** assessment and **70 marks** by **external** assessment.

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

Course- DSC Subject -Major and Minor

(Theory)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **First**
Subject: **Geography**		
Course Code: **GEOG/DSC-MN001**	Course Title: **PHYSICAL GEOGRAPHY**	

CO code **Course Outcome (CO)**

CO1: Students will ***learn*** the meaning, nature, and scope of Physical Geography.

CO2: Students will **understand** the structure of the Earth, plate tectonics, rocks, weathering, and geomorphic agents.

CO3: Students will **apply** atmospheric concepts to heat balance, winds, cyclones, monsoon, and climatic classifications.

CO4: Students will **analyze** hydrosphere processes such as the hydrological cycle, ocean relief, tides, currents, salinity, and coral reefs.

1. **CO5:** Students will **evaluate** the cycle of erosion theories of Davis and Penck.

Credits: 2	*DSC-MINOR*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-T-2/W***

Unit	**Topics**
UNIT-I	Meaning Nature and Scope of Physical Geography, Approaches to study Physical Geography
UNIT-II	Origin of the Earth; Components of Earth System. Interior of the Earth; Plate Tectonics, Rocks. Weathering; Work of river, wind, glacier and underground water and its associated features. Cycle of Erosion – Davis and Penck
UNIT-III	Atmosphere – Heat Balance; Wind types and pressure; Cyclone; Monsoon- jet streams; Climatic Classification (Koppen).
UNIT-IV	Hydrosphere –Hydrological Cycle; Ocean Bottom Relief Features; Tides; Currents and Salinity, Coral reef.

Suggested Readings:

12. Conserve H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
13. Gabbler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
14. Garrett N., 2000: Advanced Geography, Oxford University Press.
15. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
16. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
17. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
18. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
19. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley &Sons, New York.
20. Savindra Singh: Physical Geography (Hindi, English)
21. https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=KwH6LnSyFhsLI6M9Z0+tvw==
22. https://ncert.nic.in/textbook.php?kegy2=0-14

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks** by **internal** assessment and **70 marks** by **external** assessment.

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

Course- DSC Subject -Major and Minor

(Practical)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **First**
Subject: **Geography**		
Course Code: **GEOG/DSC-MJ001 (P)**	Course Title: **BASICS OF PRACTICAL GEOGRAPHY**	

CO code	Course Outcome (CO)
CO1	To Learn scale construction and uses
CO2	To Understand fundamentals of toposheets.
CO3	To Apply various social and physical aspects related to toposheet
CO4	To Analyse their geographical analytical skills related to practical Geography
CO5	To Evaluate proficiency in interpreting Aerial Photograph.

Credits: ***2***	*DSC-MAJOR*
Max. Marks: ***30+70***	*Min. Passing Marks:* ***35***

Total No. of Lectures- Tutorials - Practical (in hours per week): ***L-P-2/W***

Unit	**Topics**
UNIT-I	Scale: Simple, Comparative and Diagonal Scale.
UNIT-II	Toposheets: Introduction, Indexing, Interpretation and Conventional Signs.
UNIT-III	Landform Features based on Contours.
UNIT-IV	General Introduction and Interpretation of Aerial Photographs.

Suggested Readings:

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P.,2010: Prayogic Bhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: Prayogic Bhoogol Rooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London.

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks** by internal assessment and **70 marks** by external assessment.

Note: *In final practical examination students shall be examined by **external and internal** examiners.

**Marks distribution: 50 marks written exam, 10 marks practical file, records and 10 marks viva (Total marks 70).

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

Course- DSC Subject -Major and Minor

(Practical)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **First**
Subject: **Geography**		
Course Code: **GEOG/DSC-MN001 (P)**	Course Title: **BASICS OF PRACTICAL GEOGRAPHY**	

CO code	Course Outcome (CO)
CO1	To Learn scale construction and uses
CO2	To Understand fundamentals of toposheets.
CO3	To Apply various social and physical aspects related to toposheet
CO4	To Analyse their geographical analytical skills related to practical Geography
CO5	To Evaluate proficiency in interpreting Aerial Photograph.

Credits: ***2***	*DSC-MINOR*
Max. Marks: ***30+70***	*Min. Passing Marks:* ***35***

Total No. of Lectures- Tutorials - Practical (in hours per week): ***L-P-2/W***

Unit	**Topics**
UNIT-I	Scale: Simple, Comparative and Diagonal Scale.
UNIT-II	Toposheets: Introduction, Indexing, Interpretation and Conventional Signs.
UNIT-III	Landform Features based on Contours.
UNIT-IV	General Introduction and Interpretation of Aerial Photographs.

Suggested Readings:

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P.,2010: Prayogic Bhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: Prayogic Bhoogol Rooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London.

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks** by internal assessment and **70 marks** by external assessment.

Note: *In final practical examination students shall be examined by **external and internal** examiners.

**Marks distribution: 50 marks written exam, 10 marks practical file, records and 10 marks viva (Total marks 70).

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

*Course- **Additional/Multidisciplinary***

(Theory)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **First**
Subject: **Geography**		
Course Code: **GEOG/DSC-MD/ID001**	Course Title: **BASICS OF GEOGRAPHY- I**	

CO1: Students will learn the meaning, nature, and scope of Geography.
CO2: Students will understand major theories of Earth's evolution and their relevance to present-day earth processes.
CO3: Students will apply concepts of Earth's internal structure and identify and demonstrate their geographical importance in field.
CO4: Students will analyse the structure and composition of the atmosphere, and relate these patterns to climatic and environmental phenomena.
CO5: Students will evaluate different geographic processes and their implications for Earth's physical environment and human activities.

Credits: 2	*Compulsory Paper*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-T-2/W***

Unit	***Topics***
UNIT-I	Meaning, Nature and Scope of Geography, Solar System, Rotation and Revolution of Earth, Latitude and Longitude.
UNIT-II	Continental Displacement Theory, Continental Drift Theory, Plate Tectonic and Sea Floor Spreading.
UNIT-III	Interior of the Earth, Types of Rocks-Igneous, Metamorphic and Sedimentary Rocks and their Importance.
UNIT-IV	Structure and Composition of the Atmosphere, Temperature Distribution, Pressure and Wind

Suggested Readings:

1. Majid Hussain, Fundamentals of Physical Geography, Rawat Publication, New Delhi.
2. Goh Cheng Leong, Certificate of Physical and Human Geography.
3. D.R. Khullar, India- A Comprehensive Geography.
4. Savindra Singh - Physical Geography, Prayag Pustak Bhawan.
5. W.D. Thornberry- Principles of Geomorphology, New Age Internation.
6. Alan Strahler- Introducing Physical Geography, Wiley.

This course can be opted as an elective by the students of following subjects: **Open to all**.

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods).

Marks distribution of theory examination: **30 marks by internal** assessment and **70 marks by external** assessment.

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

*Course- **Additional/Multidisciplinary***

(Practical)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **First**
Subject: **Geography**		
Course Code: **GEOG/DSC-MD/ID001 (P)**	Course Title: **PRACTICAL GEOGRAPHY-1**	

CO code	Course Outcome (CO)
CO1	To Learn scale construction and uses
CO2	To Understand fundamentals of toposheets.
CO3	To Apply various social and physical aspects related to toposheet
CO4	To Analyse their geographical analytical skills related to practical Geography

*Credits: **2***	*Compulsory Paper*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-P-2/W***

Unit	**Topics**
UNIT-I	Scale: Simple, Comparative and Diagonal Scale.
UNIT-II	Toposheets: Introduction, Indexing, Interpretation and Conventional Signs.

Suggested Readings:

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P.,2010: Prayogic Bhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: Prayogic Bhoogol Rooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London.

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks** by internal assessment and **70 marks** by external assessment.

Note: *In final practical examination students shall be examined by **external and internal** examiners.

**Marks distribution: 50 marks written exam, 10 marks practical file, records and 10 marks viva (Total marks 70).

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Course- DSC Subject -Major and Minor

(Theory)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **Second**
Subject: **Geography**		
Course Code: **GEOG/DSC-MJ002**	Course Title: **HUMAN GEOGRAPHY**	

Course Outcomes:

CO code	**Course Outcome (CO)**
CO1	Students will **learn** the definition, nature, scope, and branches of Human Geography.
CO2	Students will **understand** cultural regions, race, religion, languages, and population growth with migration.
CO3	Students will **apply** knowledge to world population distribution, composition, and settlement patterns.
CO4	Students will **analyze** types of settlements and trends of urbanization.
CO5	Students will **evaluate** the cultural features of Indian tribes such as Bheel, Gond, Santhal, and Naga.

Credits: 2	*DSC-MAJOR*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-T-2/W***

Unit	**Topics**
UNIT-I	Definition, Nature, Scope, Branches and Contemporary Relevance
UNIT-II	Cultural Regions; Race; Religion and Languages Population: Population Growth; Migration- Meaning and types.
UNIT-III	World Population Distribution and Composition. Settlements: Types and Patterns of Rural Settlements; Classification of Urban Settlements; Trends and Patterns of World Urbanization
UNIT-IV	Tribes of India: Bheel, Gond, Santhal and Naga.

Suggested Readings:

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
5. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
6. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
7. Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
8. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks by internal** assessment and **70 marks by external** assessment.

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

Course- DSC Subject -Major and Minor

(Theory)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **Second**
Subject: **Geography**		
Course Code: **GEOG/DSC-MN002**	Course Title: **HUMAN GEOGRAPHY**	

Course Outcomes:

CO code	**Course Outcome (CO)**
CO1	Students will **learn** the definition, nature, scope, and branches of Human Geography.
CO2	Students will **understand** cultural regions, race, religion, languages, and population growth with migration.
CO3	Students will **apply** knowledge to world population distribution, composition, and settlement patterns.
CO4	Students will **analyze** types of settlements and trends of urbanization.
CO5	Students will **evaluate** the cultural features of Indian tribes such as Bheel, Gond, Santhal, and Naga.

Credits: 2	*DSC-MINOR*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-T-2/W***

Unit	**Topics**
UNIT-I	Definition, Nature, Scope, Branches and Contemporary Relevance
UNIT-II	Cultural Regions; Race; Religion and Languages Population: Population Growth; Migration- Meaning and types.
UNIT-III	World Population Distribution and Composition. Settlements: Types and Patterns of Rural Settlements; Classification of Urban Settlements; Trends and Patterns of World Urbanization
UNIT-IV	Tribes of India: Bheel, Gond, Santhal and Naga.

Suggested Readings:

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
5. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
6. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
7. Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
8. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks by internal** assessment and **70 marks by external** assessment.

Head
Department of Geography
School of Earth Science
H.N.B. Garhwal University
Srinagar (Uttarakhand)

Bachelor of Arts/ Science (B.A./B.SC.) I Year

Course- DSC Subject -Major and Minor

(Practical)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **Second**
Subject: **Geography**		
Course Code: **GEOG/DSC-MJ002 (P)**	Course Title: **MAP PROJECTIONS, WEATHER INSTRUMENTS AND THEMATIC MAPS**	

CO code	Course Outcome (CO)
CO1	To Learn various methods of Map projection
CO2	To Understand the representation of the geographic information on the map
CO3	To Apply understanding and reading maps
CO4	To Analyse Mercator's and Polar Zenithal equal area Map projection
CO5	To Evaluate ability and skill of students regarding Bonne's; cylindrical projection.

Credits: ***2***	*DSC-MAJOR*
Max. Marks: ***30+70***	*Min. Passing Marks:* ***35***

Total No. of Lectures- Tutorials - Practical (in hours per week): ***L-T-2/W***

Unit	**Topics**
UNIT-I	Map Projection: Classification; Conical Projection with one and two standards parallel,
UNIT-II	Bonne's; Cylindrical Equal Area; Mercator's; and Polar Zenithal Equal Area map projection
UNIT-III	Use and handling of meteorological instruments and interpretation of Indian Daily Weather Reports
UNIT-IV	Distribution Map: Isopleth, Choropleth, and Dot method.

Suggested Readings:

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R.P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P., 2010: Prayogic Bhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: Prayogic Bhoogol Rooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks by internal** assessment and **70 marks by external** assessment.

Note: *In final practical examination students shall be examined by external and internal examiners.

**Marks distribution: 50 marks written exam, 10 marks practical file, records and 10 marks viva (Total marks 70).

Head
Department of Geography
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Bachelor of Arts/ Science (B.A./B.SC.) I Year

Course- DSC Subject -Major and Minor

(Practical)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **Second**
Subject: **Geography**		
Course Code: **GEOG/DSC-MN002 (P)**	Course Title: **MAP PROJECTIONS, WEATHER INSTRUMENTS AND THEMATIC MAPS**	

CO code	Course Outcome (CO)
CO1	To Learn various methods of Map projection
CO2	To Understand the representation of the geographic information on the map
CO3	To Apply understanding and reading maps
CO4	To Analyse Mercator's and Polar Zenithal equal area Map projection
CO5	To Evaluate ability and skill of students regarding Bonne's; cylindrical projection.

Credits: ***2***	*DSC-MINOR*
Max. Marks: ***30+70***	*Min. Passing Marks:* ***35***

Total No. of Lectures- Tutorials - Practical (in hours per week): ***L-T-2/W***

Unit	**Topics**
UNIT-I	Map Projection: Classification; Conical Projection with one and two standards parallel,
UNIT-II	Bonne's; Cylindrical Equal Area; Mercator's; and Polar Zenithal Equal Area map projection
UNIT-III	Use and handling of meteorological instruments and interpretation of Indian Daily Weather Reports
UNIT-IV	Distribution Map: Isopleth, Choropleth, and Dot method.

Suggested Readings:

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R.P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P., 2010: Prayogic Bhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: Prayogic Bhoogol Rooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks by internal** assessment and **70 marks by external** assessment.

Note: *In final practical examination students shall be examined by external and internal examiners.

**Marks distribution: 50 marks written exam, 10 marks practical file, records and 10 marks viva (Total marks 70).

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Bachelor of Arts/ Science (B.A./B.SC.) I Year

*Course- **Additional/Multidisciplinary***

(Theory)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **Second**
Subject: **Geography**		
Course Code: **GEOG/DSC-MD/ID002**	Course Title: **BASICS OF GEOGRAPHY-II**	

CO1: Students will learn the key concepts of insolation, heat budget, global wind circulation, jet streams, monsoon systems, El Niño and La Niña phenomena.

CO2: Students will understand the processes of the hydrological cycle, ocean currents, tides, tsunamis, and the formation and significance of coral reefs.

CO3: Students will apply the concepts of ecology and ecosystem types to interpret environmental patterns and interrelationships in different geographical contexts.

CO4: Students will analyze the interactions between humans and the environment, including the structure and function of the biosphere and biodiversity dynamics.

CO5: Students will evaluate strategies for biodiversity conservation and sustainable management of ecosystems in the context of contemporary environmental challenges.

Credits:2	*Compulsory Paper*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-T-4/W***

Unit	**Topics**
UNIT-I	Insolation and Heat Budget, Global Wind Circulation, Jet Stream, Monsoon, El-Nino and La-Nina.
UNIT-II	Hydrological Cycle, Ocean Current, Tide, Tsunami, Coral Reef.
UNIT-III	Ecology and Ecosystem-Concept and Type
UNIT-IV	Man and Environment Relationship, Biosphere, Biodiversity and its conservation.

Suggested Readings:

1. Majid Hussain, Fundamentals of Physical Geography, Rawat Publication, New Delhi.
2. Goh Cheng Leong, Certificate of Physical and Human Geography.
3. D.R. Khullar, India- A Comprehensive Geography.
4. Savindra Singh - Physical Geography, Prayag Pustak Bhawan.
5. W.D. Thornbury- Principles of Geomorphology, New Age International.
6. Alan Strahler- Introducing Physical Geography, Wiley.

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks by internal** assessment **and 70 marks by external** assessment.

Head
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School of Earth Science
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Srinagar (Uttarakhand)

Bachelor of Arts/ Science (B.A./B.SC.) Ist Year

*Course- **Additional/Multidisciplinary***

(Practical)

Programme/ Class: **Certificate: B.A./B.SC.**	Year: **First**	Semester: **Second**
Subject: **Geography**		
Course Code: **GEOG/DSC-MD/ID002(P)**	Course Title: **PRACTICAL GEOGRAPHY-II**	

CO code	Course Outcome (CO)
CO1	To Learn various methods of Map projection
CO2	To Understand the representation of the geographic information on the map
CO3	To Apply understanding and reading maps
CO4	To Analyse Mercator's and Polar Zenithal equal area Map projection
CO5	To Evaluate ability and skill of students regarding Bonne's; cylindrical projection.

*Credits: **2***	*Compulsory Paper*
*Max. Marks: **30+70***	*Min. Passing Marks: **35***

*Total No. of Lectures- Tutorials - Practical (in hours per week): **L-T-2/W***

Unit	**Topics**
UNIT-I	Map Projection: Classification; Conical Projection with one and two standards parallel,
UNIT-II	Bonne's; Cylindrical Equal Area; Mercator's; and Polar Zenithal Equal Area map projection

Suggested Readings:

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R.P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P., 2010: Prayogic Bhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: Prayogic Bhoogol Rooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London

This course can be opted as an elective by the students of following subjects: **Open to all.**

Suggested Continuous Evaluation Methods: **Assignment/ Test/ Quiz (MCQ)/ Seminar/ Presentations** (any two methods)

Marks distribution of theory examination: **30 marks by internal** assessment and **70 marks by external** assessment.

Note: *In final practical examination students shall be examined by external and internal examiners.

**Marks distribution: 50 marks written exam, 10 marks practical file, records and 10 marks viva (Total marks 70).

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