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.

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

Objectives of the Program:

The department's Bachelor of Arts/Science (B.A./B.SC.) degree "Aims to empower students with knowledge and skills for spatial thinking and analysis, to navigate real-world problems, to ponder the solutions, and to contribute to society in a meaningful way;"

Program Outcomes:

⇒ The course offers a broad perspective on the historical and modern evolution of geography in an integrated manner.

⇒ The goal of the course is to give students pertinent knowledge in the topic so they can become experts in it.

⇒ The course aims to help students develop critical and analytical thinking skills and a detailed understanding of real-world challenges.

⇒ To prepare students for interdisciplinary study, the course incorporates modern scientific advancements and mathematical techniques.

⇒ The course has been designed with the National Education Policy at its core, with the aim of equipping students with the necessary knowledge to enhance their skills and become future employers.

⇒ The course will assist students in developing a thorough understanding of global and Indian geography, which will be useful for them as future policymakers and decision-makers.

⇒ The course will assist students in getting ready for a range of competitive exams for state and central government jobs in the public and commercial sectors.

⇒ The course introduces students to a variety of scientific tools that will aid them in identifying problems in the actual world and their solutions.

⇒ The course provides students with a variety of modern papers such as surveying, cartography, remote sensing and GIS, which enable them to become more employable.

⇒ The course aids in the development of empathy for the natural world, the understanding of the intricate interactions between humans and nature, and the achievement of sustainable development objectives.

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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**	

Course Objective: *After completing the course, students will be able to-*

1. Understand physical geography
2. Understand earth's dynamics and related activities.
3. Understanding Earth's atmosphere and its impact on mankind.
4. Understanding the value of Hydrosphere.

Course Outcomes: *Students will be able to understand-*

1. Students will grasp the genesis and interrelationship of the solar family.
2. Students will grasp the forces that affect the earth's surface and how they work.
3. 3. Students will grasp fundamental principles of atmosphere and oceanography.

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**	

Course Objective: *After completing the course, students will be able to-*

5. Understand physical geography
6. Understand earth's dynamics and related activities.
7. Understanding Earth's atmosphere and its impact on mankind.
8. Understanding the value of Hydrosphere.

Course Outcomes: *Students will be able to understand-*

4. Students will grasp the genesis and interrelationship of the solar family.
5. Students will grasp the forces that affect the earth's surface and how they work.
6. 3. Students will grasp fundamental principles of atmosphere and oceanography.

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**	

Course Objectives: *After completing the course, students will be able to-*

1. To develop proficiency in Scale Construction and Usage
2. To impart fundamentals of toposheets, and various social and physical aspects related to it.
3. To give basic knowledge of Aerial Photographs and its uses in Geography.

Course Outcomes: *Students will be able to understand-*

1. Students will learn the most essential tools and techniques of Practical Geography.
2. It will enhance their geographical analytical skills, particularly get some hands-on experience on preparation and use of geographical scale.
3. Proficiency in interpreting toposheets and recognizing conventional signs.
4. Get a comprehensive understanding of Aerial Photograph and its uses.

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**	

Course Objectives: *After completing the course, students will be able to-*

4. To develop proficiency in Scale Construction and Usage
5. To impart fundamentals of toposheets, and various social and physical aspects related to it.
6. To give basic knowledge of Aerial Photographs and its uses in Geography.

Course Outcomes: *Students will be able to understand-*

5. Students will learn the most essential tools and techniques of Practical Geography.
6. It will enhance their geographical analytical skills, particularly get some hands-on experience on preparation and use of geographical scale.
7. Proficiency in interpreting toposheets and recognizing conventional signs.
8. Get a comprehensive understanding of Aerial Photograph and its uses.

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**	

Course Objective: *After completing the course, students will be able to-*

1. To understand the basics of Geography with an emphasis on its nature and scope,
2. Earth structure and composition,
3. major tectonic forces and movements.

Course Outcomes: *Students will be able to understand-*

1. The meaning and scope of Geography.
2. Origin of Earth since its beginning.
3. The tectonic forces and movements.
4. The structure and composition of the Earth.

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**	

Course Objectives: *After completing the course, students will be able to-*

7. To develop proficiency in Scale Construction and Usage
8. To impart fundamentals of toposheets, and various social and physical aspects related to it.
9. To give basic knowledge of Aerial Photographs and its uses in Geography.

Course Outcomes: *Students will be able to understand-*

9. Students will learn the most essential tools and techniques of Practical Geography.
10. It will enhance their geographical analytical skills, particularly get some hands-on experience on preparation and use of geographical scale.
11. Proficiency in interpreting toposheets and recognizing conventional signs.
12. Get a comprehensive understanding of Aerial Photograph and its uses.

*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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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-MJ002**	Course Title: **HUMAN GEOGRAPHY**	

Course Objective: *After Completion of the course, students will be able to:*

1. Understand the nature, concept, significance, and scope of human geography.
2. To comprehend the relationships between the ecological and cultural changes that occur in and around the human environment.

Course Outcomes: *Students will be able to understand-*

1. Students will be able to understand Human Geography and its various concepts.
2. Students will find it easier to understand population and its components.
3. Students will be able to identify the patterns of different types of settlements

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 Objective: *After Completion of the course, students will be able to:*

3. Understand the nature, concept, significance, and scope of human geography.
4. To comprehend the relationships between the ecological and cultural changes that occur in and around the human environment.

Course Outcomes: *Students will be able to understand-*

4. Students will be able to understand Human Geography and its various concepts.
5. Students will find it easier to understand population and its components.
6. Students will be able to identify the patterns of different types of settlements

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**	

Course Objective: *After completing the course, students will be able to-*

Larger objective of this course is to develop the cartographic skill of students to depict and represent the geographic information on the map. The course will create the ability of students to adapt various methods of map projections.

Course Outcomes: *Students will be able to understand-*

In addition to the ability of understanding and reading maps, students will develop cartographic skills and will be able to create maps on their own.

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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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-MN002 (P)**	Course Title: **MAP PROJECTIONS, WEATHER INSTRUMENTS AND THEMATIC MAPS**	

Course Objective: *After completing the course, students will be able to-*

Larger objective of this course is to develop the cartographic skill of students to depict and represent the geographic information on the map. The course will create the ability of students to adapt various methods of map projections.

Course Outcomes: *Students will be able to understand-*

In addition to the ability of understanding and reading maps, students will develop cartographic skills and will be able to create maps on their own.

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**	

Course Objective: *After completing the course, students will be able to-*

1. To understand the basics of Geography with an emphasis on atmosphere, Hydrosphere and Biosphere.

Course Outcomes: *Students will be able to understand-*

1. The atmosphere and wind circulation.
2. The hydrosphere and ocean circulation.
3. The man and environment relationship.

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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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**	

Course Objective: *After completing the course, students will be able to-*

Larger objective of this course is to develop the cartographic skill of students to depict and represent the geographic information on the map. The course will create the ability of students to adapt various methods of map projections.

Course Outcomes: *Students will be able to understand-*

In addition to the ability of understanding and reading maps, students will develop cartographic skills and will be able to create maps on their own.

*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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