DEPARTMENT OF GEOGRAPHY

Category I

(B.A. Honours in Geography in three years)

SEMESTER-IV

DISCIPLINE SPECIFIC CORE COURSE – OCENOGRAPHY (DSC 10)

Course title & Code	Credits	Duration (Hrs per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
OCEANOGRAPHY	4	3	1	0	Class 12th	NIL

Learning Objectives:

The Learning Objectives of this course are as follows:

- To enable the learner to understand the basics of oceanography.
- To enable the learner to explain the configuration of the ocean bottom
- To enable the learner to discuss ocean water and its unique ecosystem
- To equip the learner to appreciate and elaborate the problems and policies for sustainable oceans
-

Learning Outcomes:

The Learning Outcomes of this course are as follows:

- The students would be able to comprehend and establish the relationship between human action and global ocean conditions. They would be able to explain the ocean as a regulator of global climate.
- Illustrate the dynamic ocean bottom topography and appreciate the circulation of cold and warm Ocean currents.
- Discuss the salinity and temperature distribution of ocean water on a three-dimensional spatial perspective.
- Elaborate the marine ecosystems as well as explain the problems and address the policies to resolve them.

Course Outline:

UNIT 1: Introduction to Oceanography: (8 hrs)

- Significance of Oceanography, Human actions and the Oceans, Challenges to Sustainability of Marine Ecosystems, Role ofSea surface Temperature (SST) as Global Climate Regulator

UNIT 2: Geomorphological Oceanography: (8 hrs)

- Ocean Bottom Topography – Relief ofOcean Floor with Global examples

UNIT 3: Physical and Chemical Oceanography: (9 hrs)

- Properties of Ocean Water: Salinityand Temperature (Horizontal and Vertical Distribution); Oceanic currents

UNIT 4: Biological Oceanography: (10 hrs)

- Marine Ecosystems: Coral Reef, Mangrove, Openand Deep Sea

UNIT 5: Sustainability of Oceans- Problems and Policies: (10 hrs)

- Marine Challenges andManagement, Marine Policy: Integrated Coastal Zone Management (ICZM) with reference to India and SDG 14; Life Below Water

Readings

- Basu S.K. (2003). Hand Book of Oceanography. Global Vision, Delhi.
- Davis, R. J.A. (1996). Oceanography: An Introduction to the Marine Environment. Brown Co, Lowa.
- Garrison, T. (2016). Oceanography: An Invitation to Marine Science. 9th ed, Cengage Learning, Boston.
- Lal. D.S. (2003) Oceanography. Sharada Pustak Bhavan, Allahabad.
- Pinet, P.R. (2014). Invitation to Oceanography. 7th ed, Jones and Barlett Publishers, Burlington.
- Sharma, R. C. and Vatal, M. (2018) Oceanography for Geographers. Surjeet Publications, Delhi.
- Singh, S. (2015). Oceanography. Pravalika Publication, Allahabad,
- Sverdrup K. A. and Armrest, E. V. (2008). An Introduction to the World Ocean. McGraw Hill, Boston.

Readings (Hindi)

- Gautam, A. (2005) Jalwayu Evam Samudra Vigyan. Rastogi Publication, Meeruth.
- Kulshrestha, K.P. (2004). Samudra Vigyan. Kitab Ghar, Kanpur.
- Singh, S. (2015). Samudra Vigyan. Pravalika Publication, Allahabad.
- Tiwari, R. K. (2016). Bhautik Bhugol. Rajsthan Hindi Granth Academy, Jaipur.

DISCIPLINE SPECIFIC CORE COURSE – ECONOMIC GEOGRAPHY (DSC 11)

Course title & Code	Credits	Duration (Hrs per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
ECONOMIC GEOGRAPHY	4	3	1	0	Class 12th	NIL

Learning Objectives:

- To evolve an understanding about the significance of space and time as attributes of human economic activities.
- To comprehend the role of geographical factors in determining the transformation of human economic activities.
- To develop an understanding of historical progression of trends and transformation of Primary, Secondary and Tertiary economic activities.

Learning Outcomes:

- To enable the learner to appreciate the role of geographical parameters in determining various economic activities and to understand the scope of economic geography, differentiating it from classification of economic activities.
- To enable the learner to assess and analyse the role of space and location in pursuit of economic activities.
- To enable the learner to develop the capability of analyzing transformation of economic activities with reference to space, time and diffusion of technology.

Course Outline

UNIT 1: Introduction: (10 hrs)

- Nature, scope and concepts and Approaches to EconomicGeography; Classification of Economic activities.

UNIT 2: Locational Factors of Economic Activities: (9 hrs)

- Factors affecting location of economic activities in agriculture industry and services; Weber's Theory of IndustrialLocation.

UNIT 3: Transitions and emerging trends in primary and secondary economic activities: (9 hrs)

- contemporary agriculture, Agro based Industry; SEZ and Technology Parks.; Pharmaceutical Industry

UNIT 4: Progressions in Tertiary Activities: **(9 hrs)**

- Case study approach to Knowledge basedindustries; IT enabled Services industry; Wellness industry

UNIT 5: Globalization of Economic activities: **(8 hrs)**

- globalization, liberalization, Ecommerce, gig economy (selected case studies)

Readings

- Alexander J. W., 1963: Economic Geography, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
- Coe N. M., Kelly P. F. and Yeung H. W., 2007: Economic Geography: A Contemporary Introduction,Wiley-Blackwell.
- Roy, Prithwish, 2014, Economic Geography, New Central Book Agency.
- Combes P., Mayer T. and Thisse J. F., 2008: Economic Geography: The Integration of Regions and Nations, Princeton University Press.
- Wheeler J. O., 1998: Economic Geography, Wiley..
- Maurya, S. D., 2018, Economic Geography, Pravalika Publication, Allahabad.
- Bagchi-Sen S. and Smith H. L., 2006: Economic Geography: Past, Present and Future, Taylor and Francis.
- Singh, S. and Saroha, J., 2021, Human and Economic Geography, Pearson.
- MacKinnon, D, and Cumbers A., 2007, An Introduction to Economic Geography: Globalization, Uneven Development and Place, Harlow: Pearson Education.
- Mamoria, C. and Joshi, R., 2019, Aarthik Bhugol (Economic Geography), Sahitya Bhawan Publication, Agra. (Hindi Edition).

DISCIPLINE SPECIFIC CORE COURSE – FUNDAMENTALS OF GIS (PRACTICAL) (DSC 12)

	Credits	Duration (Hrs per week)				Prerequisite
Course title & Code		**Lecture**	**Tutorial**	**Practical/ Practice**	**Eligibility Criteria**	
FUNDAMENTALS OF GIS (PRACTICAL)	**4**	**2**	**0**	**2**	**Class 12th**	**NIL**

Learning Objectives:

The learning objectives of this course are as following:

- In this course the students will get the basic understanding of the concept of GIS, its definitions and components and its significance in geographical study.

- They will gain the working experience to handle digitally, both spatial and attribute geographical data, its collection, storage and management through GIS and the use of locational specific data in GIS using GPS.
- They learn the fundamental steps in data analysis and the GIS application to the geographical study of land uses, urban sprawl, and forests through the means of spatial mapping.

Learning Outcomes:

Through this practical, hands-on course the students will be able to know the GIS basics and when completed they would be able to:

- Develop a basic understanding of GIS skills and learn to work on a GIS Software using computer/ laptop/ and or any other digital medium.
- Understand GIS Data Structures and GIS Data Analysis for geographical enquiry.
- Learn to apply basic GIS operations/skills to analyse the spatial data for mapping, monitoring and to detect both spatial and temporal changes in land use/cover, forests, urban sprawl, and natural resources.
- Students will be aware of spatial thinking and its manifestation in resolving issues through this computer-based technology.

Course Outline

UNIT 1: Geographical Information System/Science (GIS): **(5 hrs)**

- Definition and overview,Components, Different types of GIS Software, Significance and emerging trends.

UNIT 2 : GIS Data Structures: (5 hrs)

- Types (spatial and non-spatial), Point, Line and Area;Raster and Vector Data Structure, Database Management System (DBMS).

UNIT 3: GIS Data Analysis – I: **(5 hrs)**

- Data Input; Methods, Geo-referencing, GPS for GIS Data creation, Digitization, Input of Attribute data, Data Editing; Errors in input data, BasicGeo-processing tools.

UNIT 4: GIS Data Analysis – II: (5 hrs)

- Query and Output; Conversion, Buffering, Overlays, MapLayout

UNIT 5: Application of GIS : (5 hrs)

- Land Use / Land Cover Change, Morphometric Analysis,Urban Studies

Practical Record: 60 Hrs.

- A **record file** consisting of **5 exercises** using any GIS Software.
- The exercises should focus on any one of the above-mentioned applications based on using vector / raster data layers for Query analysis /Proximities / Finding relationship / Seeing Patterns / monitoring change.

Readings:

- Bhatta, B. (2010). *Analysis of Urban Growth and Sprawl from Remote Sensing*, Berlin, Germany: Springer.
- Burrough, P.A., McDonnell, R.A. and Lloyd, D. McDonnell (2016). *Principles of Geographical Information Systems,* UK: Oxford University Press.
- DeMers M. N., 2000: *Fundamentals of Geographic Information Systems*, NJ, USA: John Wiley & Sons.
- Gomarasca, M. A. (2009). *Basics of Geomatics.* NY, USA: Springer Science.
- Heywoods, I., Cornelius, S and Carver, S. (2006). *An Introduction to Geographical*
- *Information system.* NJ, USA: Prentice Hall.
- Jones, C. B. (2014). *Geographical Information Systems and Computer Cartography*. London, UK: Taylor& Francis.
- Longley, P. A., Goodchild, M., Maguire, D. J., & Rhind, D. W. (2010). *Geographic Information Systems and Science.* NJ, USA: John Wiley & Sons.
- O'Sullivan, D., & Unwin, D. (2014). *Geographic Information Analysis*. NJ, USA: Wiley.
- Saha K and Froyen YK (2022) *Learning GIS Using Open Source Software: An Applied Guide for GeoSpatial Analysis*, Routledge
- Singh, R.B. and Murai, S. (1998). *Space Informatics for Sustainable Development*. NewDelhi, India: Oxford and IBH.

Suggestive:

- Chang K.-T., 2009: *Introduction to Geographic Information Systems,* McGraw-Hill.
- Chauniyal, D.D. (2010). *Sudur Samvedanevam Bhogolik Suchana Pranali.* Allahabad, India: Sharda Pustak Bhawan.
- Clarke K. C., 2001: *Getting Started with Geographic Information Systems*, NJ, USA: Pearson Prentice Hall.
- Elangovan.K (2020) *GIS Fundamentals, Applications, and Implementations*, New India Publishing Agency
- Kumar, Dilip, Singh, R.B. and Kaur, R. (2019). *Spatial Information Technology for*
- *Sustainable Development Goals.* New Delhi, India: Springer.
- Nag, P. (2008). *Introduction to GIS.* New Delhi, India: Concept.
- Sarkar, A. (2015) *Practical geography: A systematic approach*. New Delhi, India:Orient Black Swan Private Ltd.

DISCIPLINE SPECIFIC ELECTIVE COURSE – GEOGRAPHY OF HIMALAYAS (DSE 3)

Course title& Code	Credits	Duration (Hrs per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
GEOGRAPHY OF HIMALAYAS	4	3	1	0	Class 12th	NIL

Learning Objectives:

- Understanding the importance of the Himalayan Mountains.
- Various aspects of the physical and human geography of the Himalayan mountain ranges.
- Understanding of climate change adaptation practices and initiatives by international and national agencies and communities.

Learning outcomes:

- To enable understanding of origin and, Political-Climatological-Social-Spiritual-Ecological significance of the Himalayan Mountain ranges.
- To understand the distinct physiography, climatology, hydrology, population dynamics, livelihood options, and developmental activities in the Himalayan Mountain ranges.
- To appreciate climate change and human activities-led impacts in the Himalayan region and related initiatives to cope up with these impacts.

Course Outline

Unit 1: Understanding Himalayan Mountains: **(5 hrs)**

- Origin, Climatological-Social-Spiritual-Ecological significance.

Unit 2: Geography of the Himalayas: **(11 hrs)**

- Geology and Physiography; soils andvegetation; Climates and River Systems of the Himalayas

Unit 3: Population dynamics: **(11 hrs)**

- Demographic indicators, population, livelihood optionsand, developmental activities in the Himalayan Region

Unit 4: Climate change and human-induced impacts: **(10 hrs)**

- Environmental degradation, Hydro-meteorological and geo-environmental disasters; glacial recession; Land usechange, deforestation and biodiversity loss

Unit 5: Policy Initiatives and Disaster Mitigation: (8 hrs)

- Climate Change Adaptation Practices, Disaster Risk Reduction, Role of International and National Institutions,Community-based eco-friendly practices

Readings

- Funnell, D. C., & Price, M. F. (2003). Mountain geography: a review. *The GeographicalJournal*, *169*(3), 183–190.
- Hund, A. J., & Wren, J. A. (2018). *The Himalayas: An Encyclopedia of Geography, History, and Culture*. ABC-CLIO/Greenwood Press.
- Ives, J. D. (1987). The theory of Himalayan environmental degradation: its validity and application challenged by recent research. *Mountain Research and Development*, *7*, 189.
- Ives, J., & Messerli, B. (2003). *The Himalayan Dilemma: Reconciling Development and Conservation*. The United Nations University (UNU) Routledge. https://doi.org/https://doi.org/10.4324/9780203169193
- Kohler, T., & Maselli, D. (2009). Mountains and Climate Change: From Understanding to Action. *Published by Geographica Bernensia with the Support of the Swiss Agency for Development and Cooperation (SDC), and an International Team of Contributors. Bern*.
- Pandit, M. K. (2017). *Life in the Himalaya: An Ecosystem at Risk*. Harvard University Press.
- Price, M. F., Byers, A. C., Friend, D. A., Kohler, T., & Price, L. W. (Eds.). (2013). *Mountain Geography*. University of California Press. https://doi.org/https://doi.org/10.4324/9780203169193
- Schickhoff, U., Singh, R. B., & Mal, S. (2022). *Mountain Landscapes in Transition: Effects of Land Use and Climate Change*. Springer Nature. https://doi.org/https://doi.org/10.1007/978-3-030-70238-0
- Singh, R. B., Schickhoff, U., & Mal, S. (2016). Climate change, glacier response, and vegetation dynamics in the Himalaya: Contributions toward future earth initiatives. In *Climate Change, Glacier Response, and Vegetation Dynamics in the Himalaya: Contributions Toward Future Earth Initiatives*. Springer Cham. https://doi.org/10.1007/978-3-319-28977-9
- Valdiya, K. S. (1998). Dynamic Himalaya. In *Gondwana Research* (pp. 1–178). Jawaharlal Nehru Centre for Advanced Scientific Research. https://doi.org/10.1016/s1342-937x(05)70174-x
- Valdiya, K. S. (2015). *The Making of India: Geodynamic Evolution*. Springer International Publishing.
- Wester, P., Mishra, A., Mukherji, A., & Shrestha, A. B. (2019). The Hindu Kush Himalaya Assessment. In *The Hindu Kush Himalaya Assessment*. Springer Cham. https://doi.org/10.1007/978-3-319-92288-1

DISCIPLINE SPECIFIC ELECTIVE COURSE – RURAL DEVELOPMENT (DSE 4)

Course title & Code	Credits	Duration (Hrs per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
RURAL DEVELOPMENT	4	3	1	0	Class 12th	NIL

Learning Objectives:

- The course is designed to impart an integrated understanding of the crucial dimensions of rural development.
- It aims to introduce students to the need and practice of rural development projects and programmes in India.

Learning Outcomes:

At the end of the course, the students shall develop an understand of the following :

- concepts related to the need and approaches to rural development;
- Issues pertaining to rural society and economy;
- the existing rural development programs and institutions and knowledge of successful case studies from India and the sub-continent.

Course Outline

Unit 1. Understanding Rural Development: (5 hrs)

- Concept of Development; Development, Relevance and Approaches to Rural Development

Unit 2. Theories of Rural Development: (11 hrs)

- Modernization Theory; Dependency Theory;Theory of The Big Push; Leibenstein's Critical Minimum Effort theory

Unit 3. Rural Society and Economy: (11 hrs)

- Agriculture and allied activities; Seasonality and need for expanding non-farm activities; Issues of landholdings and land reforms; Concepts of social mobility and social change.

Unit 4. Rural Development Programs in India: (10 hrs)

- Poverty Alleviation Programmes;Programmes for Employment and Social Security; Other Development Programmes (PMGSY, MNREGA, PURA)

Unit 5. Rural Development Institutions and Case studies: (8 hrs)

- Panchayati Raj institutions,Cooperatives, Training & Finance Institutions, and Voluntary organisations. RuralDevelopment Experience (case study from India and the Indian sub-continent)

Readings:

- Venkata Reddy, K. Agriculture and Rural Development (Emerging Trends and Right Approach to Development), HmalayaPublshing House Pvt., Ltd., Mumbai, 2012.

- Jain L.C. 1985, Grass without roots; Rural Development under Government Auspices, Sage Publications, New Delhi.
- Seshadri, K. 1976, Political Linkages and Rural Development, National Publishing House, New Delhi.
- Maheswari S. (1985) Rural Development in India, - A Public Policy Approach, Sage Publication, New Delhi.
- Satyasundaram (1997), Rural Development, Himalaya Publishing House, New Delhi.
- Singh. Katar. 2009. Rural Development Principles, Policies ad Management. New Delhi: Sage Publications.
- Sharma S.K and S.L. Malhotra. Integrated Rural Development: Approach, Strategy and Perspectives, New Delhi: Heritage.

Online Resources:

- https://www.researchgate.net/publication/326394634_A_Handbook_of_Rural_India
- https://www.researchgate.net/publication/363239631_Rural_and_Agricultural_Development_Policy_and_Politics
- https://www.researchgate.net/publication/346462814_Democracy_Development_and_the_Countryside_Urban-Rural_Struggles_in_India
- https://www.researchgate.net/publication/363306272_The_South_Asian_Path_of_Development_A_Historical_and_Anthropological_Perspective
- https://www.researchgate.net/publication/327282616_Changing_Face_of_Rural_India
- https://www.researchgate.net/publication/368608447_Application_of_Science_Technology_for_Rural_Development
- https://www.researchgate.net/publication/229779918_Theory_in_Rural_Development_An_Introduction_and_Overview

DISCIPLINE SPECIFIC ELECTIVE COURSE – NATURAL RESOURCE MANAGEMENT (DSE 5)

Course title & Code	Credits	Duration (Hrs per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
NATURAL RESOURCE MANAGEMENT	4	3	1	0	Class 12th	NIL

Learning Objectives:

The learning objectives of this course are as follows:

- To understand the basic concepts of natural resources, resource appraisal and resource management
- To explain the issues and challenges of management of different natural resources
- To discuss sustainable development of natural resources
- To analyse the resource management policies

Learning Outcomes:

The Learning Outcomes of this course are as follows:

- The students would be able to comprehend the concepts related to the field of natural resource management.
- The students would be able to assess the issues and challenges of management land, soil, water, forest and energy resources.
- The students would elaborate sustainable resource development, natural resource governance and policies.

Course Outline

Unit 1: Introduction: (9 hrs)

- Meaning and concepts of Natural Resources; Classification ofnatural resources, Approaches to Natural Resource Management, Resource Appraisal

Unit 2: Land and Soil Resources: (9 hrs)

- Utilization, Issues and challenges; Management andconservation**Unit 3: Water and Forest Resources: (9 hrs)**
- Utilization, Issues and challenges;Management and conservation

Unit 4: Energy Resources: (9 hrs)

- Growing global energy needs; Use of alternate energyresources; Management and conservation

Unit 5: Contemporary Strategies for Natural Resource Management: (9 hrs)

- SustainableResource Development; Natural Resources Governance Framework; Resource Management Policies.

Readings

- Gautam, A. (2018 Natural Resource: Exploitation, Conservation and Management, Sharda Pustak Bhawan, Allhabad.
- Potter, K. (2022) Natural Resources: Exploitation, Depletion and Conservation, Callisto Reference, New York
- Singh, J. and G. Pandey (2015) Natural Resource Management and Conservation, New Delhi: Kalyani Publishers.
- Cooper, P. (2018) Ecology and Natural Resource Management, Syrawood Publishing House, New York
- Cole, R.A. (1999) Natural Resources: Ecology, Economics and Policy, Prentice Hall College Division
- Thakur, B. (2009) Perspectives in Resource Management in Developing Countries, Vol 1: Resource Management-Theory and Practices, Concept Publishing House, NewDelhi.
- Thakur, B. (2009) Perspectives in Resource Management in Developing Countries, Vol 4: Land Appraisal and Development, Concept Publishing House, New Delhi.
- Zilberman, D., J.M. Perloff and C.S. Berck (2023) Sustainable Resource Development in the 21st Century, Natural Resource Management Policy: Vol. 57, Springer
- Pereira L.S. et al (2013) Coping With Water Scarity: Addressing the Challenges, Springer
- Misra, H. N. (2014) Managing Natural Resources: Focus on Land and Water, PHI Learning Pvt. Ltd., New Delhi.
- Pathak, P. and R.R. Srivastav (2021) Alternate Energy Resources: The way to Sustainable Modern Society, Springer.
- Grebner, D.L. et el (2021) Introduction to Forestry and natural Resources, Academic Press, U.K.
- Saxena, H. M. (2013) Economic Geography, Rawat Publication, New Delhi.

GENERAL ELECTIVE -SUSTAINABLE DEVELOPMENT: SOCIETY AND POLICY INTERFACE (GE 10)

NOTECourse title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
SUSTAINABLE DEVELOPMENT: SOCIETY AND POLICY INTERFACE	4	3	1	0	Class 12th	NIL

Learning Objectives:

- To understand emerging sustainable science disciplines and associated concepts,
- To explain principles of sustainable development, including components of sustainable development
- To discuss methods of measuring sustainable development and issues related to the same.

Learning Outcomes:

After transacting the course, students will be able to:

- Understand the basic concept of sustainable development.
- Assess sustainability and related methods to measure the same.
- To explain major issues related to sustainability including ways to achieve the same.

Course Outline

Unit 1: Sustainable Development: (7 hrs)

- Meaning and Concept of Sustainable Development, Components, Historical Background, Sustainability Sciences.

Unit 2: Sustainable Development Goals: (10 hrs)

- Illustrative SDGs**;** Goal-Based Development;Financing for Sustainable Development

Unit 3 : Sustainability Assessment and Appraisal: (10 hrs)

- Sustainability Indicators,Ecological Footprint Analysis, Sustainability Index, India SDG Index.

Unit 4: Issues in Sustainability: (10 hrs)

- Poverty and Disease, Universal Health Coverage;Policies and Global Cooperation for Climate Change, Biodiversity loss

Unit 5: Sustainable Policies and Success Stories: (8 hrs)

- Good Governance for Sustainability, Gandhian Philosophy of rural development, Sustainable Cities, Micro-level Success stories: Piplantri Village (Rajasthan) and Kundrakudi Village (Tamil Nadu)

Practical component (if any) – NIL

Readings

- Atkinson, G., Dietz, S. Neumayer, E. (2007) Handbook of Sustainable Development, Edward Elgar, Massachusetts, USA.
- Blewitt, J. (2008) *Understanding Sustainable Development*, Earthscan, London.
- Bosselmann, K. (2008) The Principle of Sustainability: Transforming Law and Governance, Ashgate, England.
- Cole, V. and Sinclair, A.J. (2002) Measuring the ecological footprint of a Himalayan tourist centre. *Mountain Research and Development*, 22(2: 132-141.
- Khuman Y.S.C., Mohapatra, S., Yadav, S.K. and Salooja, M.K. (2014) Sustainability science in India, *Current Science*, 106(1): 24-26.
- Kopnina, H. and Shoreman-Ouimet, E. (eds) Sustainability: Key Issues, London and New York: Routledge.
- Piplantri: A Rajasthan village which celebrates the birth of every girl child with 111 trees. Ministry of Women and Girl Child. Weblink: https://wcd.nic.in/sites/default/files/Piplantri.pdf
- Planning Commission (1986) Towards improved local level planning for rural development: Lessons from some Experience. Multi-Level Planning Section. Government of India, New Delhi.
- Sachs, J.D. (2015) *The Age of Sustainable Development*, Columbia University Press, New York.
- SDG India: Index & Dashboard 2020-21, Partnerships in the Decade of Action, Niti Aayog Report, Government of India, New Delhi.
- Soubbotina, T.P. (2004) Beyond Economic Growth: An Introduction to Sustainable Development, The World Bank, Washington, D.C.
- Wackernagel, M. and Rees, W. (1996) Our Ecological Footprint: Reducing Human Impact on the Earth. New Society Publishers, Philadelphia.

GENERAL ELECTIVE-GEOGRAPHY OF CONFLICT AND PEACE STUDIES (GE 11)

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
GEOGRAPHY OF CONFLICT AND PEACE STUDIES	**4**	**3**	**1**	**0**	**Class 12th**	**NIL**

Learning Objectives:

- Develop an understanding about the Geography of Conflict and Peace Studies as an academic discipline. The course is organised around three principal themes: Introduction to Geography of Conflict and Peace Studies, Conflict Resolution, Peace building and Peace-making in spatial context.

Learning Outcome:

At the end of the course the students shall understand -

- Core Concepts of Geography of Conflict and Peace Studies
- Conflict and peace related different perspectives
- International and Intra state Conflicts with case examples
- Historical experiences of Conflict Resolution at global and regional level
- Peace making and Peace Building Process
- They will also gain knowledge to explain and analyse world politics around different geographical contexts.

Course Content:

Unit 1: Introduction: (8 hrs)

- Conflict and Peace: Definitions, Cause based classification of conflicts, Emergence of Conflicts and Peace Studies in Geography, Global Indices of Conflict and peace -Global peace Index, Global Conflict Risk Index

Unit 2: Philosophical perspectives on Conflict and peace: (10 hrs)

- Marxist, Socialist, Gandhian: key concepts, Global and Indian Experiences

Unit 3: International and Inter state Conflicts: (9 hrs)

- Conflicts in the International System: Treaty of Versailles and World War II, Intra-state river water and boundary disputes, Contemporary wars-Bio Warfare, Resource wars

Unit 4: Peace making and Peace Building: (9 hrs)

- Concept, Process, approaches; India 's Soft Power and peace-making, India's participation in UN peace keeping

Unit 5: Conflict Resolution - Global and National case studies: (9 hrs)

- Geneva Convention, Hague Conventions of 1899 and 1907, North Atlantic Treaty Organization (NATO) , Formation of League of Nations, Establishment of United Nations ; National Panchsheel Principles , Indian Peace Accords

Readings

- Audrey Kobayashi (ed), 2015, Geographies of Peace and Armed Conflict, Routledge
- Tim Marshall ,2016, Prisoners of Geography, 2016, Elliott & Thompson Limited
- Tim Marshall, 2021.THE POWER OF GEOGRAPHY: Ten Maps That Reveal the Future of Our World, Elliott & Thompson Limited
- Robert D. Kaplan ,2013, The Revenge of Geography: What the Map Tells Us About Coming Conflicts and the Battle Against Fate, RHUS; Reprint edition
- John Schwarzmantel, Hendrik Jan Kraetzschmar (ed) , 2013,Democracy and Violence: Global Debates and Local Challenges , Routledge;
- Colin Flint, 2004, The Geography of War and Peace: From Death Camps to Diplomats, OUP USA
- Björkdahl, A., Buckley-Zistel, S. (eds) Spatializing Peace and Conflict. Rethinking Peace and Conflict Studies. Palgrave Macmillan, London. https://doi.org/10.1057/9781137550484_1

- Nurit Kliot, Stanley Waterman, The Political Geography of Conflict and Peace,1999, Belhaven Press
- Galtung, John, 1996, Peace by Peaceful Means, Sage
- Nicholas John Spykman ,1944, The Geography Of The Peace, Harcourt, Brace And Company, Inc.
- Brown, Michael E, Owen R. Cote, Sean M. Lynn-Jones & Steven E. Miller, eds., 1998, Theories of War and Peace. An International Security Reader. Cambridge, MA: MIT Press
- Bercovitch, Jacob, et.al. 2009. The Sage Handbook of Conflict Resolution. New Delhi: Sage Publication.
- Azar, Edward E., 1990, The Management of Protracted Social Conflict: Theory and Cases Aldershot: Dartmouth
- Berrovitch, Jacob and Jeffery Z. Rubin, (eds), Mediation in International Relations: Multiple Approaches to Conflict Management, New York: St. Martin's Press,
- Burton, John, 1990, Conflict: Resolution and Prevention, London: Macmillan.
- Elshtain, Jean Bethke, 1995, Women and War, Chicago: University of Chicago Press.
- Kriesberg, Louis, et.al., eds., 1989, Intractable Conflicts and their Transformation, Syracuse University Press,
- Kriesberg, Louis and Thorson, Stuart J., eds., 1991, Timing and the De-escalation of International Conflicts,Syracuse: Syracuse University Press
- Lederach, John Paul, 2004, Building Peace: Sustainable Reconciliation in Divided Societies, Princeton: Princeton Uni Press,
- Miall, Hugh, Ramsbotham and Woodhouse, Tom, 1999, Contemporary Conflict Resolution: The Prevention, Management and Transformation of Conflicts, Cambridge: Polity Press.
- Michael, C.R., 1981, The Structure of International Conflict, London: Macmillan,
- Parekh, Bhikhu,1989, Gandhi's Political Philosophy: A Critical Examination, London:
- Parekh, Bhikhu, 2001, Gandhi, (London: Oxford Paperback,)
- Vayreynen, Raimo, Dieter Senghaas and Christian Schmidt (eds.), 1987, The Quest for Peace: Cultures and States, California: Beverly Hills
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GENERAL ELECTIVE-REGIONAL DEVELOPMENT (GE 12)

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
REGIONAL DEVELOPMENT	4	3	1	0	Class 12th	NIL

Learning Objective

The Learning Objectives of this paper are as follows:

- To understand the importance of balanced regional development.
- To familiarize the students about multi-sectoral regional disparities at regional and global levels
- To introduce students to theoretical and practical aspects of regional planning and regional development.

Learning Outcome:

The Learning Outcomes of this paper are following:

- The students will understand the causes of regional disparities and significance of balanced regional development.
- The students will be able to assess the level of regional inequalities in different sectors
- of economy and in human development.
- The students will gain insights into the spatial- regional aspects of development and the importance of planned efforts to develop backward areas.

Course Outline

- **Unit 1: Introduction: (8 hrs)** Concept of Regional Development, Determinants of regional disparities and significance of balanced Regional Development.
- **Unit 2: Global Regional Disparities**: **(10 hrs)** Spatial patterns of Human Development-HDI of Developed, Developing and Least Developed Countries, Case study of Sahel and Western Europe.
- **Unit 3: Regional Disparities in India: (9 hrs)** Regional disparities in agricultural and industrial development, regional disparities in Human Development (Poverty, Education and Health).
- **Unit 4: Theories of Regional Development**: **(9 hrs)** Growth Pole and Growth Centre; Cumulative Causation and Core-periphery.
- **Unit 5: Regional Development Planning**: **(9 hrs)** Multipurpose Dam Project (Sardar Sarovar Project); Urban Planning (National Capital Region) and Target-Group Approach (Integrated Tribal Development Programme).

Readings

- Chandna, R.C. (2000) Regional Planning: A Comprehensive Text, Kalyani Publishers, New Delhi.
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- Kuklinski, A.R. (1972) Regional Development and Planning: International Perspective, Sijthoff-Leydor.
- Mahesh Chand and V.K. Puri (1983) Regional Planning in India, Allied Publishers, New Delhi.
- Misra, R.P. (ed.) (1992) Regional Planning: Concepts, Techniques, Policies and Case Studies, 2nd Edition, Concept Publishing Company, New Delhi.
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