

M.A./ M.Sc. (Two Years Degree Program)	
First Semester	
Subject-Geography	
Code of the Course	GEG8001T
Title of the Course	GEOMORPHOLOGY
Qualification Level of the Course	NHEQF Level 6.5
Credit of the course	4
Type of the course	Discipline Centric Core Course in Geography
Delivery type of the Course	Lecture (40+20 = 60). The 40 hours for content delivery and 20 hours of diagnostic assessment, formative assessment, and subject/ class activity, problem solving.
Pre-requisites	Fundamental understanding of geographical concepts & phenomena.
Co-requisites	None
Objectives of the course	To impart learning about various concepts, processes and problems related to landforms and evaluate man's activities in his geographical milieu.
Learning outcomes	<ul style="list-style-type: none"> • To develop an understanding of major relief features and process of their formation on the earth surface. • To develop an understanding of landform dynamics and predict their changes on the earth surface. • To develop knowledge and skills to carry out geomorphological mapping and field investigations. • To develop research aptitude in the field of Geomorphology. • Basic contents for various competitive examinations for civil services, lecturership, school education, UGC NET-JRF and so on.
Syllabus पाठ्यक्रम	
UNIT - I	<p>Concept & scope of geomorphology. Development in geomorphology. Geological Time Scale. Interior of the Earth. Isostasy: concept and theories. Continental Drift Theory. Plate Tectonic theory. Theories of mountain building: Kober and Holmes.</p> <p>भू-आकृति विज्ञान की अवधारणा एवं कार्यक्षेत्र। भू-आकृति विज्ञान में विकास। भूवैज्ञानिक समय मापनी। पृथ्वी का आंतरिक भाग। भू-संतुलन: अवधारणा एवं सिद्धांत। महाद्वीपीय विस्थापन सिद्धांत। प्लेट विवर्तनिकी सिद्धांत। पर्वत निर्माण के सिद्धांत: कोबर एवं होम्स।</p>

UNIT - II	Diastrophism. Denudational Processes: Concept, weathering. Cycle of erosion: views of Davis and Penck. Development of slopes: approaches to the study of slopes - views of W. Penck, A. Wood and A. N. Strahler. पटल विरूपण। अनाच्छादन प्रक्रियाएं: संकल्पना, अपक्षय। अपरदन चक्र: डेविस एवं पेंक के विचार। ढालों का विकास: ढाल अध्ययन के उपागम-डब्ल्यू. पेन्क, ए. वुड एवं ए.एन. स्ट्राहलर के विचार।
UNIT - III	Geomorphic processes, erosional and depositional landforms – fluvial, glacial and fluvio-glacial, wind, karst and coastal. भू-आकृतिक प्रक्रियाएँ, अपरदनात्मक और निक्षेपणात्मक स्थलाकृतियाँ - जलीय, हिमानी एवं जलीय-हिमानी, पवन, कार्स्ट एवं तटीय।
UNIT - IV	Submarine relief. Geomorphometry: geomorphology and topographic analysis. River forms and processes – stream flow, hydrographs and flood frequency analysis. Extra-terrestrial geomorphology. समुद्री उच्चावच। भू-आकृतिमिति: भू-आकृति विज्ञान एवं स्थलाकृतिक विश्लेषण। नदी के स्वरूप एवं प्रक्रियाएँ - धारा प्रवाह, हाइड्रोग्राफ एवं बाढ़ आवृत्ति विश्लेषण। अपार्थिव भू-आकृति विज्ञान।
UNIT - V	Application of geomorphological studies to understand human activities: settlements, transport, land-use, mining. Geomorphic Hazards: Causes and distribution with special reference to earthquakes, volcanoes, landslides and avalanches. Dams and reservoirs: geomorphic consideration and environmental impact. मानव गतिविधियों को समझने के लिए भू-आकृति विज्ञान का अनुप्रयोग: बस्तियाँ, परिवहन, भूमि-उपयोग, खनन। भू-आकृतिक खतरे: कारण एवं वितरण, भूकंप, ज्वालामुखी, भूस्खलन एवं हिमस्खलन के विशेष संदर्भ में। बांध एवं जलाशय: भू-आकृतिक संदर्भ एवं पर्यावरणीय प्रभाव।
	Suggested Readings सहायक ग्रन्थ / सामग्री
Text Books	<ul style="list-style-type: none"> • Dayal, P., A Text Book of Geomorphology, Shukla Book Depot, Patna, 1996. • Hagget, Richard, Fundamentals of Geomorphology, Routledge, Taylor & Francis Group, New York, 2007. • Singh, S., भू-आकृति विज्ञान का स्वरूप, Prayag Pustak Bhawan, Allahabad, 2014. • एच. एस. शर्मा: भौतिक भूगोल, पंचशील प्रकाशन, जयपुर • गायत्री प्रसाद : भू आकृति विज्ञान, शारदा पुस्तक भंडार, 2012 • एस .एल .गुप्ता : भू आकृति विज्ञान, हिंदी माध्यम कार्यान्वयन निदेशालय, दिल्ली विश्वविद्यालय, 2008 • जे. पी. शर्मा: भूआकृति विज्ञान, रस्तोगी प्रकाशन, मेरठ
Reference Books	<ul style="list-style-type: none"> • Pike, R.J., I.S. Evans and T. Hengl, Geomorphometry: A Brief Guide, Developments in Soil Science, Volume 33, Elsevier B.V., 2009 • Sharma, H. S., Tropical Geomorphology, Concept, New Delhi, 1987 • Shepard, F. P., Submarine Geology, Harper & Sons, New York, 1948 • Singh, S., Geomorphology, Prayag Pustakalaya, Allahabad, 1998

	<ul style="list-style-type: none"> • Small, R. J., The Study of Landforms, McGraw Hill, New York, 1985 • Sparks, B. W., Geomorphology, Longmans, London, 1960 • Strahler, A. H., Introducing Physical Geography, 5th Edition, John Wiley & Sons, 2009. • Summerfield, M. A., Global Geomorphology, Longman, 1991 • Thornbury, W. D., Principles of Geomorphology, Wiley Eastern, 1969
Suggested E-resources	<ul style="list-style-type: none"> • NCERT Geography books of 11th and 12th standards. • https://www.thoughtco.com/search?q=geography • https://bhuvan-app1.nrsc.gov.in/mhrd_ncert/