

M.A. /M.Sc. Geo-informatics/ PGDGIS

UTTARAKHAND OPEN UNIVERSITY

INTRODUCTION TO INFORMATICS

INTRODUCTION TO INFORMATICS



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INTRODUCTION TO INFORMATICS

Wrap-up Material	
Units Borrowed from	Unit No.
Old book of Geoinformatics MGIS-01, UOU	1,3,4,10
Computer Science book UOU, CCA-01, CCA-02	2, 5, 6, 7, 8, 9

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UNIT 1: Fundamental of computers

UNIT 2: Communication and connectivity

UNIT 3: Basics of networking

UNIT 4: Operating systems

UNIT 5: File system

UNIT 6: Software

UNIT 7: Basic computing using windows

UNIT 8: Introduction to ms word

UNIT 9: Introduction to ms excel 2007

UNIT 10: Database management systems



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BASICS OF REMOTE SENSING AND GIS

BASICS OF REMOTE SENSING AND GIS



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BLOCK 1: INTRODUCTION TO REMOTE SENSING (RS)

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UNIT 2 : Electromagnetic Radiation (EMR), Atmospheric Windows, Scattering, Radiation Interactions and Radiation Principals

UNIT 3: Platforms and Sensors

UNIT 4: Resolutions Types and Definition

UNIT 5: Types of Remote Sensing, Remote Sensing Data Analysis and Interpretation

BLOCK 2: INTRODUCTION OF GIS

UNIT 6: Concept, Definition, Importance and History of GIS

UNIT 7: Data Models

UNIT 8: Data Query

UNIT 9: GIS Data Input (Point, Line, Polygons), Methods of Data Input

UNIT 10: Data Output Analysis and Visualization

BLOCK 3: OVERVIEW ON RS & GIS SOFTWARE

UNIT 11: Overview of Quantum GIS Software

UNIT 12: Overview of Open Source Software

UNIT 13: Overview of GIS Portals and Open Data Archives



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GPS AND GEODESY

GPS AND GEODESY



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UNIT 3: Optical Theodolites, Measurement of Angles

UNIT 4: Direct and Reverse Geodetic Problem, Theodolitic Moves & Horizontal Picture

BLOCK 2: FUNDAMENTALS OF GPS

UNIT 5: Introduction to Global Positioning System

UNIT 6: Components / Segments of Global Positioning System

UNIT 7: Coordinate System

BLOCK 3: APPLICATIONS OF GPS

UNIT 8: Environment

UNIT 9: Agriculture

UNIT 10: Public Safety & Disaster Relief

UNIT 11: Surveying & Mapping

UNIT 12: Roads and Highways

UNIT 13: Navigation



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CARTOGRAPHY

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UNIT 3: Scale and types of scale

UNIT 4: Base map concept, definition and preparation

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UNIT 5: Concept, definition, importance, shape, distance, area and direction properties

UNIT 6: Projection types, description and utilities

UNIT 7: Selection of a projection

UNIT 8: Map coordinates and their importance, map grid system and their origin

BLOCK 3: MAP COMPILATION AND DESIGN

UNIT 9: Scanning and digitization-planimetric, topographic and thematic

UNIT 10: Information- sample and census surveys attribute data tables, elements of map, map layout principles

UNIT 11: Map design fundamentals, symbols and conventional signs, graded and ungraded symbols, color theory, colors and patterns in symbolization, map lettering and area estimation through different tools and techniques

Block 4: MAP MAKING

UNIT 12: Definition of chloropleth, daysimetric and isopleths maps

UNIT 13: Class interval selection and shading

UNIT 14: Isopleth maps and interpolation strategies, flow maps, cadastral maps

UNIT 15: Demographic and statistical mapping, sequential maps

UNIT 16: Map production, map printing, colors and visualization, map reproduction, printing soft copies and standards



M.A. /M.SC. GEO-INFORMATICS

UTTARAKHAND OPEN UNIVERSITY

ADVANCE REMOTE SENSING

ADVANCE REMOTE SENSING



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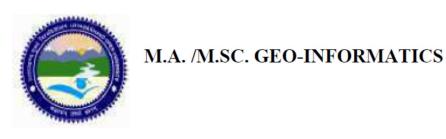




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