

Programme Project Report (PPR)
ODL Regulation 2020
MSC Geoinformatics
Uttarakhand Open University

The content of the Programme Project Report is as: -

Name of Programme: M.Sc. Geoinformatics

(a) Programme Mission & objectives:

Uttarakhand state comprises of geographically constrained areas. A large number of learners cannot avail higher education due to the aforesaid geographical constraints. The learners can avail higher education through ODL (Open and Distance Learning) mode. The mission of the programme is to provide higher education to the learners in a way which is easily accessible. The mission of the programme is students will learn, through Geo-informatics education to promote global perspectives, international understanding and how to analyze data, explore issues, problem solve, and evaluate situations in a geographic and spatial context.

Our vision is to conduct innovative research, teaching and outreach on the patterns and processes of life with a focus on geographic and spatial context.

The objectives of the programme are:

- Understanding of course content.
- Capacity to integrate information from many sources.
- Maximize the efficiency of decision making and planning.
- Provide efficient means for data distribution and handling.
- Apply tools and techniques of Geo-informatics.
- Classify, interpret, and analyze data.
- Students will be exposed to cartographic information and will develop map reading & map making skills.
- Students will learn how to use Geographic Information system for cartography. GIS is an important tool for apply the geographical methodology.
- Present clear, concise, and logical arguments based on specific and relevant examples.
- Update data quickly.




(b) Relevance of the Programme with HEI's Mission and Goals: One of the missions of higher education particularly Open and Distance Learning Institutions is to provide greater opportunities of access to Higher Education with equity to all the eligible persons and in particular to the vulnerable sections. Another mission of the Higher education Institutions is to initiate policies and programmes for strengthening research and innovations, and encourage institutions - public or private to engage in stretching the frontiers of knowledge. Uttarakhand is remote geographical area state and large number of students cannot attend the college due to geographical problem. Thus, the master's degree programme is very useful for the students. Particularly in the field of Remote Sensing & GIS.

(c) Nature of Prospective Target group of Learners: Geo-informatics being a multidisciplinary subject has its usefulness and applicability in every sphere of life, society, culture and organization. Those learners who wish to opt career in Geo-informatics related Government organizations such as Urban planner/ Community Development, Cartographer, GIS specialist, Climatologist, Transport Management. Environmental Management, Writer, Scientist, Teaching faculty, Emergency Management, Demographer, foreign services, Librarian information scientist, National Park service Ranger, Disaster Management ect. And Non- Government organizations such as International Union for a Conservation of Natural Resource, Real Estate Appraisal will be the largest group of learners. Also, those learners who left their higher education due to some reasons and those who have gaining the knowledge of the subject will be the target group.

(d) Appropriateness of the Programme to be conducted in Open and Distance Learning and/ or online mode to acquire skill and competence:

The access to knowledge on the subject is not accessible easily to those aspirants who reside in far remote areas and those who belong to weaker and marginal sections of the society. Therefore, initiating such programme in Open and Distance Learning (ODL) mode will help aspirants particularly residing in far-flung areas and those who belong to weaker sections, to acquire skill and knowledge on the subject area.

This programme is planned to be offered in the distance mode and by making learning accessible through part time study outside the working hours.

E. Pandey
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(e) Instructional Design:

i) Curriculum design: Before designing the programmes and courses in Geo-informatics, attempts were made to draw upon the literature produced by other academic and professional institution in India and abroad. Due attention has been paid in balancing the theoretical knowledge with laboratory study, field survey/ studies, and Project work. The programme curriculum is given below:

Programme Curriculum:

Name of the Programme: Master of Science Geoinformatics

Programme Code: MSCGIS-21

Programme Mode: Semester

Eligibility: Graduation with science or engineering stream

Duration Min: 2 Years; Max: 4 Years

Self-Learning Material (SLM): English

Programme Fee: Fee per semester: - 12500/

Total fee M.Sc. Programme = 50000 /

Total Credit: 64

Programme Structure:

M.Sc. Ist Semester

GIS-501/DGIS-501/CGIS-501

Course Name: Introduction to Informatics

Programme : Master of Science

UNIT SCHEDULE

UNIT 1: Fundamental of computers

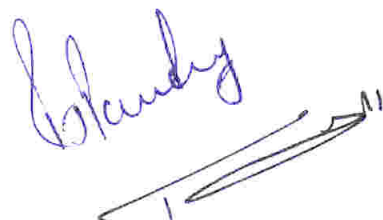
UNIT 2: Communication and connectivity

UNIT 3: Basics of networking

UNIT 4: Operating systems

UNIT 5: File system

UNIT 6: Software

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UNIT 7: Basic computing using windows

UNIT 8: Introduction to MS word

UNIT 9: Introduction to MS excel 2007

UNIT 10: Database management systems

M.Sc. Ist Semester

GIS-502/DGIS-502/CGIS-502

Course Name: Fundamentals of Photogrammetry & Remote Sensing

Programme : Master of Science

Unit Schedule

Block 1: Introduction to Remote Sensing

Unit 1: Definition, scope and evolution of Remote Sensing

Unit 2: Electromagnetic Radiation (EMR) and atmospheric Windows

Unit 3: Platforms and Sensors

Block 2: Aerial Photography

Unit 4: Aerial Photograph

Unit 5: Stereoscopic area Photograph

Unit 6: Relief Displacement in Aerial Photograph

Block 3: Introduction to Image Interpretation

Unit 7: Concept of Photography

Unit 8: Sensor Resolutions

Unit 9: Elements of Image Interpretation

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