Self-Study Report (SSR) - Criterion-1

Information to be submitted by Departments/Directorates/Centres for Each Programme Offered

1	Department/Directorate/Centre/Institute:	Geoinformatics
2	Name of the Programme Offered:	MSc and PhD Geoinformatics
3	Departmental website link of the complete/updated syllabus:	https://geoinformatics.uok.edu.in/Files/ce444cdb-61e7-4b39-9200-c3b92c83bb07/Menu/Geoinformatics_syllabi-2019_8f119c6c-c233-449b-ae97-740ca44b22c3_306ac9c3-4e49-40af-814d-b15145ba0d3.pdf
4	Number of Courses in the Programme?	44
5A	Number of New Courses introduced in the Programme since 2019?	6

5B List of New Courses introduced since 2019:

Course Code	*Course Title*	*Brief Description*
GI19104CR	Seminar and Hands-On	To build the communication skills, and scientific paper reading/writing of the students
GI19108GE	GIS Basics	To impart basic GIS skills like geospatial analysis, map making amongst students
GI19204CR	Mapping from Space	Individual/Group assignment on geospatial mapping and analysis so as to train them in geoinformatics
GI19209OE	Applications of GIS	To teach students common applications of GIS with focus on utrilities and hazards
GI19307DCE	Fieldwork	Candidates are taken for field work within state for understanding different land surface process and collection of field data
GU19404CR	Ground Truth	Students are required to carry out ground validation of of the assigned research/project work

5C	Departmental website link in support of New Courses introduced in the Programme since 2019.	https://geoinformatics.uok.edu.in/Files/ce444cdb-61e7-4b39-9200-c3b92c83bb07/Menu/Geoinformatics_syllabi-2019_8f119c6c-c233-449b-ae97-740ca44b22c3_306ac9c3-4e49-40af-814d-b15145ba0d3.pdf
6A	Dates of syllabus revisions during the last five years. (2019-2023)	27-04-2019
6B	Departmental website link in support of syllabus revisions.	https://geoinformatics.uok.edu.in/Main/Default.aspx
7	Are Programme Outcomes (POs) clearly mentioned in the syllabus? (Y/N)	YES
8	Are the Course Outcomes (COs) mentioned for each course of the programme? (Y/N)	YES
9A	**Does POs & COs have relevance to local, regional & global developmental needs? (Y/N)**	YES

9B List of courses addressing Local Needs:

Course Code	*Course Title*	*Brief Justification*
GI19104CR	Seminar and Hands-On	The students are required to deliver Powerpoint presentations on local issues. Additionally, the students are required to digitize local maps/plans.
GI19204CR	Mapping from Space	The students are required to delineate local natural resources like lakes/wetlands, glaciers, and geomorphology.
GI19304CR	Term work	Students are required to work on any easpect of environment and do a thgorough literature review in areas pertaining to atmosphere, hydrosphere/ cryosphere, biosphere, physical geography, etc.
GI19307DCE	Fieldwork	Students are required to do field work related to accuracy assessment of land use, glaciers, waterbodies, infrastructure, etc
GI19401CR	Project work	A full feldged research project having local and regional significance on any aspect of environment
GI19404CR	Ground Truth	Students are required to perform validation of lab-generated land use, infrastructure, resources, etc

9C List of courses addressing Regional Needs:

Course Code	*Course Title*	*Brief Justification*
GI19206DCE	Disaster, risk and hazard assessment	The curriculum is designed to provide students insights into regional disasters facing the country
GI19207DCE	Remote sensing for urban and regional planning	This subject helps disseminate knowledege about the application of remote sensing in urban planning with case studies at country level
GI19305DCE	Glaciology	This subject equips students about the state and fate of Himalayan crysophere and how it responds to transient environmental changes
GI19405DCE	Climatology and climate change	This subject equips students in the area of climate and climate changes previaling at regional and global scales

9D List of courses addressing Global Needs:

Course Code	*Course Title*	*Brief Justification*
GI19105DCE	Digital cartography and geoinformation visualization	Digital cartography is an advanced field of geospatial sciences where technical skills of students are honed in the area of map making
GI19301CR	Field survey and GNSS	This subject builds the skills of students in the field of global navigation statellite systems
GI19403CR	Open-source GIS	This course helps the students to get familiar with open-source GIS softwares so that there is less reliance on propriety softwares.

10A	**Does the Programme offer focus on Employability/ Entrepreneurship/ Skill development courses? (Y/N)**	YES

10B List of Employability Courses:

Course Code	*Course Title*	*Brief Justification*
GI19102CR	Fundamentals of Remote Sensing	This subject helps disseminate knowledege about the application of remote sensing in various environmental concerns at regional and national level
GI19108GE	GIS Basics	This subject builds the skills of students in the field of Geoinformation systems
GI19204CR	Mapping from space	This subject builds the skills of students in the field of Mapping, interpretation.
GI19206DCE	Disaster, Risk and Hazard Assessment	This subject builds the skills of students in the field of Mapping, interpretation and analysis of disaster related issues and problems
GI19301CR	Field Survey and GNSS	This subject builds the skills of students in the field of global navigation statellite systems
GI19405DCE	Climatology and Climate Change	This subject equips students in the area of climate and climate changes previaling at regional and global scales

10C List of Entrepreneurship Development Courses:

Course Code	*Course Title*	*Brief Justification*
GI19102CR	Fundamentals of Remote Sensing	This subject helps disseminate knowledege about the application of remote sensing in various environmental concerns at regional and national level
GI19108GE	GIS Basics	This subject builds the skills of students in the field of Geoinformation systems
GI19204CR	Mapping from space	This subject builds the skills of students in the field of Mapping, interpretation.
GI19206DCE	Disaster, Risk and Hazard Assessment	This subject builds the skills of students in the field of Mapping, interpretation and analysis of disaster related issues and problems
GI19301CR	Field Survey and GNSS	This subject builds the skills of students in the field of global navigation statellite systems
GI19405DCE	Climatology and Climate Change	This subject equips students in the area of climate and climate changes previaling at regional and global scales

10D List of Skill development Courses:

Course Code	*Course Title*	*Brief Justification*
GIP19101CR	Practical-Computers and geoinformation management	The practical course helps students develop reasoning skills, expose them to basics of programming and its relevance in geospatial analysis
GIP19102CR	Practical-Fundamentals of remote sensing	This course builds technical skills of students in remote sensing and image processing
GIP19103CR	Practical-Fundamentals of GIS	This course builds technical skills of students in geospatial analysis
GI19104CR	Seminar and hands-on	This course helps students to deliver presentations to scientific audience and improve mapping skills
GIP19201CR	Practical-Fundamentals of microwave remote sensing	Students are provided technical skills in microwave remote sensing and its advantages over optical data
GIP19202CR	Practical-Advanced remote sensing and image processing	This course builds technical skills of students in advanced methods in remote sensing and image processing
GIP19203CR	Practical-Advanced geoinformatics	This course builds technical skills of students in geomatics and its applications

	GI19204CR	Mapping from space	The students are given assignement on mapping the landscape elements like forests, glaciers, snow, wetlands, etc.
	GIP19301CR	Practical-Field survey and GNSS	The students are provided hand on experience so that they are able to use surveying and GNSS instruments like GPS, laser distance meters, total station, etc.
	GIP19305DCE	Practical-Glaciology	Students are exposed to undertand glacier dynamics through remote sensing, physically-based models and ground truth
	GI19307DCE	Fieldwork	Students are taken to field work within the state to get familiar with the reources and environmental issues where geomatics could have a role in mapping and modellingh that particular resource
	GIP19402CR	Practical-Geospatial statistics	Helps students build skills in the field of geospatial statistics
	GI19403CR	Open source GIS	This course helps the students to get familiar with open-source GIS softwares so that there is less reliance on propriety softwares.
	GI19404CR	Ground truth	Students are required to perform validation of lab-generated land use, infrastructure, resources, etc

	Does the programme have courses addressing Professional ethics/ gender/ human values/ environment/ sustainability & other value framework enshrined in NEP2020/etc. (Y/N)		
	List of courses addressing **Professional Ethics:**		
11A	*Course Code*	*Course Title*	*Brief Justification*
11B	GI19401CR	Project work	This course will help the students to develop ethical understanding of use of different datasets and software required for research purpose.
	List of courses addressing **Gender Issues:**		
	Course Code	*Course Title*	*Brief Justification*
11C			
	List of courses addressing **Human Value Issues:**		
	Course Code	*Course Title*	*Brief Justification*
11D	GI19206DCE	Disaster, risk and hazard assessment	This subject builds the technical know-how of students in hazards, vulnerability, exposure, risk on the disasters facing the Himalaya
	GI19405DCE	Climatology and Climate Change	This subject equips students in the area of climate and climate changes previaling at regional and global scales
	List of courses addressing **Environment Issues:**		
	Course Code	*Course Title*	*Brief Justification*
11E	GI19104CR	Seminar and hands-on	Students are asked to present and work on local environmental issues through geomatic tools
	GI19206DCE	Disaster, risk and hazard assessment	This subject builds the technical know-how of students in hazards, vulnerability, exposure, risk on the disasters facing the Himalaya
	GI19208GE	Applications of remote sensing	This subject helps the students understand various environmental issues through the application of remotre sensing methods/ local case studies
	GI19209OE	Applications of GIS	This subject helps the students understand various environmental issues through the application of geomatic tools/ local case studies
	GI19304CR	Term work	This subject is aimed to build the understanding of students in various aspects of earth and environmental sciences through geomatics
	GI19307DCE	Fieldwork	Students are taken to field work within the state to get familiar with the reources and environmental issues where geomatics could have a role in mapping and modellingh that particular resource
	GI19404CR	Ground truth	Students are required to perform validation of lab-generated land use, infrastructure, resources, etc
	List of courses addressing **Sustainability Issues:**		
	Course Code	*Course Title*	*Brief Justification*
11F	GI19204CR	Mapping from space	The students are given assignement on mapping the landscape elements like forests, glaciers, snow, wetlands, etc. for
	GI19207DCE	Remote sensing for urban and regional planning	This subject helps disseminate knowledege about the application of remote sensing in urban planning with case studies at country level
	GI19405DCE	Climatology and climate change	Students are taught basic of climate chnages and its impact on sustainable development of population, infrastructure and resources
	GI19407GE	Natural disasters	Students are taught basic of natural disasters, their mitigation and role of geomatics in mitigating natural disasters
	List of courses addressing **Other Value Framework enshrined in NEP2020/etc.:**		
	Course Code	*Course Title*	*Brief Justification*
11G			

	Does the Department/Directorate/Institute/ Centre offer Diploma Programme? (Y/N)								
	Details of the **Diploma Programmes** offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
12A	*Programme Code*	*Name of Diploma Programme*	*Mode of Programme (Online/Offline)*	*Year of Offering/e*	*Contact hours of course*	*Number of students*	*Number of Students*	*Departmental website link to the relevant document*	*Number of students enrolled in the year*
12B									

	Does the Department/Directorate/Institute/ Centre offer Certificate Courses? (Y/N)	
	Details of the **Certificate Courses** offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)	

13A	*Course Code*	*Name of Certificate Course*	*Mode of Course (Online/Offline)*	*Year of Offering/e*	*Contact hours of course*	*Number of students*	*Number of Students*	*Departmental website link to the relevant document*	*Number of students enrolled in the year*
13B									

Does the Department/Directorate/Institute/ Centre offer Value-Added Courses? (Y/N)	
Details of the **Value Added Courses** offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)	

14A	*Course Code*	*Name of Value-Added Course*	*Mode of Course (Online/Offline)*	*Year of Offering/e*	*Contact hours of course*	*Number of students*	*Number of Students*	*Departmental website link to the relevant document*	*Number of students enrolled in the year*
14B									

Does the Department/Directorate/Institute/ Centre offer Online Courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms? (Y/N)	
Details of **Online Courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms** where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)	

15A	*Course Code*	*Name of the Course*	*Mode of the Course- offered by the HEI or Online (Specify the platform like MOOCS, SWAYAM, etc.)*	*Year of Offering/e*	*Contact hours of course*	*Number of students*	*Number of Students*	*Departmental website link to the relevant document*	*Number of students enrolled in the year*
15B									

Does the programme have Field Projects/ Research Projects /Internship in the programme? (Y/N)	
Details of components of **Field Projects / Research Projects / Internships implemented** during last five years **(2019-2023)**	

16A	*Course Code*	*Name of the course pertaining to field projects/ Research Projects /Internship*	*Number of Credits*	*Number of students undertaking course*	*Departmental website link to the relevant document*
16B	GI19304CR	Term work	15 per year	15 per year	https://geoinformatics.uok.edu.in/Main/Default.aspx
	GI19307DCE	Field work	15 per year	15 per year	https://geoinformatics.uok.edu.in/Main/Default.aspx

GI19401CR	Project work	15 per year	15 per year	https://geoinformatics.uok.edu.in/Main/Default.aspx
GI19404CR	Ground Truth	15 per year	15 per year	https://geoinformatics.uok.edu.in/Main/Default.aspx
Any other Relevant Information:				

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Signature of the Head/Director of the Department/Centre/Institute

General Instructions:

1. ***Kindly format the syllabus in light of the instruction and discussions held in past meetings and upload the syllabus on the Departmental Website.***
2. ***Upload valid proofs on the Departmental Website.***