

CENTRE FOR GEOGRAPHICAL STUDIES

ARYABHATTA KNOWLEDGE UNIVERSITY

M.A. / M.SC.
IN GEOGRAPHY

PROSPECTUS 2024

ABOUT

ARYABHATTA KNOWLEDGE UNIVERSITY

Aryabhatta Knowledge University (AKU), Patna has been established by Government of Bihar through the Aryabhatta Knowledge University Act, 2008 [Bihar Act 24 of 2008] to incorporate a university and to conduct and facilitate affiliation of institutions set up by the Government and/or the Trust or Society in the conventional as well as new frontiers of professional education, for example, Engineering & Technology including Information Technology, Nanotechnology and Biotechnology, Management, Medicine, Health, Technology, Public Health, Pharmacy, Optometry, Nursing, Education, Law, etc., and also to achieve excellence in teaching, research and extension work in these and related areas.

Prof. (Dr.) S. N. Guha took over charge on March 19, 2010 as the first Vice-Chancellor of the newly established Aryabhatta Knowledge University (AKU), Patna. It was the need of time and product of deeply meditated thoughts of our visionary Chief Minister, Shri Nitish Kumar and Prof. (Dr.) S. N. Guha that Aryabhatta Centre for Nano Science and Nanotechnology came into existence. This is the first Centre of the University to carryout teaching and research in Nanoscience & Technology. The centre also cherishes the goal of developing trained manpower in this area through entrepreneurship development, thereby generating series of cottage industries in order to alleviate a long-standing problem of unemployment.

Four new Centres - School for Journalism & Mass Communication, Centre for River Studies, Centre for Geographical Studies and Patliputra School of Economics are established which were merged with Aryabhatta Knowledge University Amendment Act —2021 published in Bihar Gazette. Establishment of many other Centres like Aryabhatta Centre for Stem Cell Technology, Astrophysics & Astronomy, Education and Non-Conventional Energy, etc. are in the pipeline.

Under the visionary leadership of the present Vice-Chancellor Dr. (Prof.) Surendra Pratap Singh, the University is growing fast in all horizons.



During the years, the University has achieved significant progress on all fronts without exception. Recently, on 21st February, 2019 the University campus has been inaugurated by Hon'ble Chief Minister of Bihar, Sri Nitish Kumar, the man behind the establishment of this non-conventional professional university. He has time and again reiterated that his vision behind foundation of AKU was not to award academic degrees merely for job market but also, to establish a Centre of higher learning which would focus primarily on teaching, research and extension work for creation and dissemination of knowledge. Accordingly, the University is striving hard to fulfil his dreams to make Bihar a centre for higher learning and research to revive its glorious past.

Aryabhatta Knowledge University is also an affiliating University. The University has been ensuring that only qualitatively good colleges get affiliation and fair examinations are conducted timely as per the Academic Calendar of the University. To achieve the aforesaid target, the University has been constituting teams consisting of members of impeccable character for inspection of colleges and has established Examination Management System (EMS)—thus taking a step towards making evaluation system fully automated.

The University is also fulfilling its social responsibilities through its Community Colleges, spread all over Bihar, which are dedicated to provide professional education to the most needy and deprived sections of society.

The University is committed to provide access to quality education, to create encouraging opportunities for students to tackle emerging innovations and technological challenges, and to acquaint students with the ethos of international competitiveness and leadership in thought and action. AKU is also conscious of the importance of developing entrepreneurial and scholastic abilities for the creation of knowledge, wealth and prosperity for the country as well as peace and happiness for human beings.

VISION OF THE UNIVERSITY

The vision of AKU is to be a vibrant knowledge University, resonating with the mission of all round development, by providing value-based, creative and innovative quality education.

MISSION OF THE UNIVERSITY

The mission of AKU is creation, dissemination and curation of knowledge. Established to lead as a knowledge centre, AKU aims to:

- ☑ Enhance its position as one of the world's leading research and teaching universities and to measure performance against the highest international standards.
- ☑ Provide the highest quality learning and teaching environment for the greater wellbeing of our students by making education a way of living and not an article of commerce.
- ☑ Make a significant, sustainable and socially responsible contribution to Bihar, India and the world, promoting health, economic and cultural wellbeing through research, creative activity, scholarly inquiry and the development and dissemination of new knowledge, including the commercialization of university discoveries.
- ☑ Assimilate the scientific wisdom available across the world.
- ☑ Establish partnerships with industries and other contemporary systems in all sectors like technology, agriculture, manufacturing and services.
- ☑ Serve as an agency of quality improvement for teachers in their respective and interdisciplinary fields by using modern teaching tools.
- ☑ Preserve and promote the arts, benefit economy of the state, serve the citizens through public programs and provide other public service.
- ☑ Tap opportunities for innovative partnerships with business, charitable foundations, and healthcare.
- ☑ Work for sustainability and the relationship with the environment.

OBJECTIVES OF THE UNIVERSITY

- ☑ To develop professional education in response to the changing demands of the modern world and society;
- ☑ To facilitate and encourage teaching, research and extension in the matters connected with professional education including sciences, applied sciences, arts and social sciences;
- ☑ To facilitate and ensure qualitative improvement in the teaching and learning processes and methodologies;
- ☑ To facilitate and ensure quality research in the contemporary and frontier areas of knowledge in the field;
- ☑ To facilitate the needs for and organize the process thereof for lifelong learning;
- ☑ To disseminate knowledge and research findings emerging from the University, its institutions or otherwise across the world;
- ☑ To establish partnerships with industries and other entities in all sectors like agriculture, manufacturing and services and develop relationships for achieving its objectives;
- ☑ To facilitate creation and promote knowledge centres in various areas of specialization and disseminate need based relevant information electronically to the client;
- ☑ To serve as an agency of quality improvement for teachers in their respective and interdisciplinary fields and also using modern technology.

ABOUT

CENTRE FOR GEOGRAPHICAL STUDIES

The Centre for Geographical Studies (CGS), Patna was established by Government of Bihar in 2018 and it started to function in 2020. The CGS is a constituent of Aryabhatta Knowledge University. CGS is envisioned as a Centre for Geographical Research in areas of policy and development. The Centre's immediate goal is imparting skills in the discipline of Geography, at a level which is comparable with the world's leading institutions. The overarching goal is employment of these skills and skilled individuals towards geographical planning and policy intervention for the advancement of Bihar. CGS maintains its focus on complex issues, where application of scientific geographical principles can lead to significant developmental gains for the state of Bihar. This gestalt forms the fulcrum of the centre's efforts.

Late Prof. Poornima Shekhar Singh was appointed as the first director of CGS in July 2020. Under her visionary thinking and leadership, CGS was able to take its original form. Her tenure lasted till January 2023.

In culmination of its role as a centre for research and planning of public policy, CGS aims to substantially contribute towards state, and eventually towards national developmental policies and strategies. In this vein, CGS aspires to incrementally emerge as world class research institution. The centre is also committed to moving beyond traditional research avenues such as

consultancy and training programs, to take the philosophy of planning beyond academia, and into the public sphere. In the public sphere, CGS will endeavour to address the complex relations between the limits imposed by the natural world, and the possibilities that human action can create in its sustainable future.



The Centre for Geographical Studies will be an eminent institution of academic



excellence in the discipline of Geography. To be the destination of choice for meritorious students and scholars of Geography. To be the preferred partner of the state on policy formulation requiring geographical expertise.

MISSION

- ☑ To build intellectual, creative, and practical abilities of the institution and students.
- ☑ To recruit and retain outstanding faculty to foster the advancement of developmental vision and mentoring emerging scholars to realize their highest potential and assume roles of leadership, responsibility and service to society.
- ☑ To create a wealth of Knowledge through rigorous research work and make vital publications.

PROGRAMME/COURSES IN CGS

- > Ph.D. in Geography
- > Certificate & Diploma Programme in Research Methodology
- > M.Sc., Diploma and Certificate Programme in GIS and Remote Sensing
- > M.A./M.Sc. in Geography

M.A./M.SC. IN GEOGRAPHY

PREAMBLE:

The CBCS provides an opportunity for the students to choose courses from the prescribed list of courses comprising core, elective and ability enhancement courses. The courses can be evaluated following the grading system, which is considered to be better than the conventional marks system. Therefore, it is necessary to introduce uniform grading system in the entire higher education in India. This will benefit the students of universities of Bihar to move across institutions within India to begin with and across countries. The uniform grading system will also enable potential employers in assessing the performance of the candidates. The Universities shall follow the guidelines formulated by the UGC in order to bring uniformity in evaluation system and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations.

The Postgraduate degree course for subjects under Faculty of Social Science shall be of four semesters spread over two years' duration. The course shall be named as the 'Master of Arts'/ 'Master of Science' course and shall be abbreviated as M.A./M.Sc.

GENERAL

- ☑ The ORDINANCE and the REGULATIONS shall be called the 'Admission Ordinance' and 'Regulations of Examination' for Post-Graduate degree courses to be applicable in the Universities of Bihar. The ordinance and regulations shall be effective from the academic session on word/2022-23.
- ☑ This course will provide admission eligibility to all those who have successfully passed the graduation level examination with minimum 55% marks in the Honours course.
- ☑ Candidates coming from Science Stream shall be eligible for M.Sc. degree in Geography & Environmental Studies and those coming from Social Science stream shall be eligible for the award of M.A. in Geography & Environmental Studies.
- ☑ The M.A. Course shall consist of 20 papers spread over four semesters consisting of Core Courses (CC), Elective Courses (EC), Discipline Specific Elective Courses (DSE) or Generic Elective Course, Ability Enhancing Courses (AEC) and Ability Enhancing Compulsory Courses (AECC) as described in Table 2. There shall be five courses/ papers in first semester, six courses/ papers in second semester, six courses/ papers in third semester, three courses/ papers in fourth semester; each course carrying 100 marks. The entire curriculum shall be of 2000 marks taken together. However, the CGPA/class shall be awarded on the performance of the candidate on 16 papers which includes the 14 CC papers and two EC papers having an aggregate of 1600 marks.

THE SUBJECTS

➤ The Postgraduate Degree "Master of Arts" [M.A.]/Master of Science [M.Sc.] in Geography and Environmental Studies.

Admission to M.A./M.Sc Part-I (First Semester)

- ☑ A candidate seeking admission to M.A./M.Sc. (Semester System) must be a graduate having passed the Bachelor Degree (B.A./B.Sc.) with Honours in the subject concerned or as a subsidiary subject or as a subject in pass course or in an allied subject. Preference will be given to those having passed with the subject as a Hons Subject/Major subject/Core Course.
- ☑ In such subjects where candidates with Honours/ Subsidiary / Pass degree are not available, students having degree in allied subjects may be treated at par as having Honours Degree in the subject. Lists of allied subjects. The Academic Council of the University on the recommendation of its equivalence committee shall modify the lists of allied subject/subjects whenever needs arise.
- ☑ Admission to M.A./M.Sc. Part-I (First Semester), shall be made in order of merit. The merit list shall be prepared on the basis of marks obtained by the applicant in the Bachelor Degree Course or through Entrance test.

In case of Entrance Test, it will be organized by the University to be named as 'Name of the respective university' – Postgraduate Entrance in the Faculty of Social Sciences abbreviated as: PET/SS. The merit list shall be prepared on the basis of marks obtained by the applicant in the PET/SS to be organised by the respective University.

ELIGIBILITY CRITERIA

- ☑ The eligibility criterion for applying for admission in M.A./M.Sc. are as follows:-
 - (i) Passed the Bachelor degree (B.A./B.Sc.) with 45% marks in respective Honours subject/major subject/core course or
 - (ii) Passed the Bachelor degree with 55% marks in Subsidiary/Pass course/Allied subject.
- ☑ Admission to M.A./M.Sc. course will be taken on the basis of marks in the Bachelor Degree course or performance in AKUET/SS.
- ☑ Structure of the entrance test:
 - Questions shall be of multiple-choice type with four options with a single correct answer. The entrance test shall be held on OMR sheet. The duration of the test shall be of 2:30 hour. The total marks will be 200 marks. There shall be no negative marking. There shall be two parts in the question paper as mentioned in table.3.

TABLE.3. DETAILS OF ENTRANCE TEST

Part A	General Aptitude	50 marks	50 questions	1 mark for each question
Part B	Subject Test	150 marks	75 questions	2 marks for each question

☑ The application fee for applying for admission to M.A./M.Sc. courses will be Rs.1500/-only. This will include the fee for admission test (whenever applicable). On the recommendation of the Academic Council and with the approval of the statutory bodies of the respective university, application fee may he revised whenever required.

NO. OF SEATS

Total Seats in M.A./M.Sc. in Geography should be 50 (fifty) or shall be decided by the respective University in accordance with the guidelines received from the State Government from time to time.

RESERVATION OF SEATS

- i. The reservation of seats in each course shall be as per reservation rules of the Government of Bihar.
- ii. Reservation for Persons with Disabilities (PwD) will be followed as per orders of the Government of Bihar issued from time to time.
- iii. A maximum of two seats in each subject over and above the sanctioned seats shall be filled by applicants who have distinguished themselves in sports. Under this category, only those applicants shall be considered who have represented their University/State in different disciplines at state/national level events.
- iv. A maximum of two seats in each subject over and above the sanctioned seats shall be filled by applicants who have distinguished themselves in Fine Arts. Under this category, only those applicants shall be considered who have represented their University/State in different disciplines at state/national level events.
- v. Reservation for sons/daughters/ spouse of Military personnel/Defence Personnel will be followed as per provisions of the General Ordinance for Admission to Various Courses received from the Governor's Secretariat, Bihar. Patna vide its letter no. PU18/993944/GS(1) dated 28.8.1999. This reservation will also be over and above the normal sanctioned strength of the subject.
- vi. Reservation for sons/daughters of the respective university teachers will be followed as per provisions of the General Ordinance for Admission to Various Courses received from the Governor's Secretariat, Bihar, Patna vide its letter no. PU18/99-3944/GS(I) dated 28.8.1999. This reservation will also be over and above the normal sanctioned strength of the subject.
- vii. Reservation for sons/daughters of the respective university non-teaching staff will be followed as per provisions of the General Ordinance for Admission to Various Courses received from the Governor's Secretariat, Bihar, Patna vide its letter no. PU18/993944/GS(1) dated 28.8.1999. This reservation will also be over and above the normal sanctioned strength of the subject.
- viii. 2% seats of the sanctioned strength in any subjects may be filled with NRI/Foreign students. These seats will be treated as over and above the normal sanctioned strength. NRI candidates under this category shall submit their applications duly recommended by M.E.A. (Ministry of External Affairs) along with the copies of the documents showing NRI status.
- ix. A candidate seeking admission against under various reserved category i.e. SC/ST/EBC/OBC/WBC etc. has to mention about the category at the time of submitting the main admission application form and attach the supporting document to substantiate his/ her claim. Applications received separately later on shall be entertained.
- x. A candidate seeking admission against seats under special quota as mentioned above [7ii to 7.x] shall have to submit special quota application along with main admission application form and attach the supporting document to substantiate their claim. Applications received separately later on shall not be entertained.
- xi. No student shall be provided two weightages for the purpose of admission under special quota from 7.ii to 7.x.
- ☑ No applicant shall be admitted to the course who has not applied for admission within the notified time period.
- ☑ No such applicant shall be admitted who, in the opinion of the Head of the Department and endorsed by the Vice Chancellor, should not be admitted in the best interest of the University.
- ☑ During the tenure of the course, if it is found that any document/documents or submission made by a student in support of his/her admission to M.A./M.Sc. course is/are forged or fake, his/her admissions shall automatically stand cancelled. The concerned candidate shall be solely responsible for the cancellation of his/her admission and other punitive action/actions.

- ☑ The Vice Chancellor of the respective University has the absolute right to reject /deny admission to any candidate without assigning any reason if he/she judges that this is in the best interest of the University.
- ☑ No candidate shall be allowed to register for any other degree course in the same University or any other university during the same academic session of his/her study of M.A. under the subjects of the Faculty of Humanities.

MEDIUM OF INSTRUCTION/TEACHING

Medium of instruction for teaching-learning and examination will be Hindi/English except courses on literature/language. In courses on Language / literature will be decided by the BOCS.

FEE STRUCTURE

Fee Structure per Semester for M.A./M.Sc. in Geography and Environmental Studies under regular mode:

SI. No.	Head/Item	For Indian Resident in Indian Rupees (₹)	Non-Residents Indian (NRI) and Foreign Students in US dollar (\$)
-	Admission Fee (Per Semester)	250/-	90
Ш	Registration fee (one time) If Applicable	200/-	20
Ш	Caution Money (One time)	1000/-	200
IV	Tuition Fee (Per Semester)	4000/-	500
V	Eklavya & Tarang (One time in each Academic Session)	10/-	25
VI	Total	5460/-	835
VII	Miscellaneous(Per Semester)		
	Central Library	500/-	10
	Electricity fee	500/-	10
	Identity card fee	100/-	5
	Parking	100/-	5
	Internal Examination fee	1000/-	25
	Common Room Fund	200/-	5
	Extra-Curricular Fee (Cultural)	100/-	5
	Environmental Protection Fee	100/-	5
	Students Welfare Fee	200/-	5
	Society Subscription	100/-	5
	Magazine Fund	200/-	5
	Hand Book/ Dictionary	100/-	5
VIII	Total	3200/-	90
IX	Grand Total	8660/-	925
Χ	Less Registration Fee	200/-	20
ΧI	Total Amount 1st Semester	8460/-	905
XII	Total amount in subsequent semesters excluding caution money and registration charges	7460/-	705
XIII	Practical fee per semester wherever applicable	500/-	50
XIV	Field work wherever applicable (One Time)	1000/-	50
XV	The order of GOB issued from time to to Strictly.	me in regards to fee	Structure will be followed

COURSE STRUCTURE

Structure of the 2 Yrs. (Four Semesters) Post Graduate Degree course under CBCS:

Semester	No. of Course/ Paper	Credit per Course/ Paper	Total Credit	Minimum No. of Learning Hours	No. of CORE Course/ Paper	No. of Elective Course/ Paper	Code & Nature of Elective Course/Paper
I	05	05	25	250	4	1	AECC-1
			SEME	STER BREAK			
П	06	05	30	300	5	1	AEC-1
			SEME	STER BREAK			
Ш	06	05	30	300	5	1	AECC-2
			SEME	STER BREAK			
IV	03	05	15	150	0	3	EC-1* EC-2* DSE-1 or GE-1
Total	20		100	1000	14	6	

For Tutorial (T)/Practical (P)/Field Work (FW)/Internship etc. extra working hour to be added as per requirement and will be decided by the BOCS of the respective subject.

OUTLINE OF SYLLABUS:

SEMESTER - I: M.A./M.Sc. in GEOGRAPHY

COURSE OPTED	COURSE CODE	COURSE NAME	CREDITS
CC-1	GEO-M-101	Geomorphology	05
(Core Course)		-	
CC-2	GEO-M-102	Climatology and Oceanography	05
(Core Course)			
CC-3	GEO-M-103	History of Geographical Thought	05
(Core Course)			
CC-4	GEO-M-104	Regional Planning and Development	05
(Core Course)			
AECC-1		(i) Environment sustainability	03
(Ability		(ii)Swachha Bharat Abhiyan	02
Enhancement			
Compulsory			
Course)			

SEMESTER - II: M.A./M.Sc. in GEOGRAPHY

COURSE OPTED	COURSE CODE	COURSE NAME	CREDITS
CC-5	GEO-M-201	Environment, Ecology, and Biogeography	05
(Core Course)			
CC-6	GEO-M-202	Economic and Resource Geography	05
(Core Course)			
CC-7	GEO-M-203	Quantitative Methods	05
(Core Course)			
CC-8	GEO-M-204	GIS and Remote Sensing	05
(Core Course)			
CC-9	GEO-M-205	Map Projection and Cartographic techniques	05
(Core Course)		(Practical)	
AEC-1		Environmental law and policy	05
(Ability		Solid waste Management	
Enhancement			
Course)			

SEMESTER - III : M.A./M.Sc. in GEOGRAPHY

COURSE OPTED	COURSE CODE	COURSENAME	CREDITS
CC-10	GEO-M-301	Geography of India	05
(Core Course)			
CC-11	GEO-M-302	Hydrology and Water Resource	05
(Core Course)			
CC-12	GEO-M-303	Gender Geography	05
(Core Course)			
CC-13	GEO-M-304	Research Methodology	05
(Core Course)			
CC-14	GEO-M-305	Instrumental Survey, GIS and GPS (Practical)	05
(Core Course)		Practical Exercises based on GIS Information,	
		Practical Computer Lab In-charge will determine	
		the topics conducting GIS Lab Practical	
AECC-2		(i) Human Value and Professional Ethics	03
(Ability		(ii) Gender Sensitization	02
Enhancement			
Compulsory			
Course)			

SEMESTER - IV : M.A./M.Sc. in GEOGRAPHY

COURSE OPTED	COURSE CODE	COURSENAME	CREDITS
EC-1	GEO-M-401	Elective (Any of them)	05
(Elective Course)		1. Urban Geography	
		2. Settlement Geography	
		3. Population Geography	
		4. Human and Social Geography	
		5. Historical and Political Geography	
		6. Land use and Agriculture Geography	
		7. Disaster Management	
		8. Geoinformatics and Spatial Analysis Techniques	
EC-2	GEO-M-402	Dissertation/Project Report based on field study on	05
(Elective Course)		topic related to any of them. (It will partially be	
		sponsored (financially) by the University.	
		The remaining contribution (financial) will be made	
		by the students).	
		1. Climate Change	
		2. Culture and History of India	
		3. Urban Transportation	
		4. Social-economic status of different social groups	
		5. Medical Geography	
		6. Green Energy	
		7. Urban forestry and Rooftop green cover	
		8. Rural Ecology	
		9. Flood disaster and Management	
		10. Drought disaster and Management	
DSE-1		11. Water crisis and management	0.5
		Regional Planning and Development-(104-CC) Or	05
(Discipline Specific			
Elective) OR GE-1 (Generic Elective)		Geography of Bihar	
(Generic Elective)			

ADMISSION

- a. A candidate seeking admission to M.Sc. (Geographic Information System & Remote Sensing) programme Semester-I must have:
 - Bachelor's degree in any subject of science, Technological subject, Agricultural science, Forestry science and Geography or in any other equivalent subject approved by the academic council of the university with not less than 55% aggregate marks for General Category and 50% for all reserved categories in the absolute system or equivalent grade.
- b. Candidate having bachelor degree in above subjects through distance education/correspondence mode are also eligible to apply for admission to the M.Sc. programme.
- c. Notwithstanding what has been stated in o.6 (a) above, applications from candidate sponsored by organizations recognized by the Court, and applications from foreign nationals

- received through proper channel, may be considered for admission to the programme without University M.Sc. Entrance Test. Their admission shall, however, be governed by the regulations prescribed by the Court.
- d. Candidates from Government / Public Sector Organizations with Associate Membership qualification (AMIE, AESI. AMIM, AMIIChemE, AMIETE) and having two years of experience, can be permitted to apply for admission to M.Sc. (GIS & Remote Sensing) under sponsored programme without University M.Sc. entrance Test.
- e. For all other applicants, their shall be the admission entrance test, consists of total 100 marks which includes objective type 80 questions (each question carries 1 marks) and 20 marks of interview as part of entrance test .. The 80 marks objective question shall be from English, Computer Science, General Studies, reasoning and Aptitude test.
- f. A. merit list of the candidate who appear in the entrance test shall be prepared by following the rules of reservation and the admission shall purely be based on merit in each category of students.
- g. The reservation of the seats for this course shall be as per the reservation rules of the Govt. of Bihar.
- h. Seats left in any of the reserved category by reason of the fact that eligible candidates are not available shall be filled up admitting applicants from amongst candidates available in other categories in order of ascending categories.
- i. The total number of seats for the M.Sc. (Geographic Information System & Remote Sensing) shall be 40 (Forty).

DISQUALIFICATION

No applicant shall be admitted to this course who has not applied for admission within the notified time.

- a. The admitted students will have to get themselves registered within a specified time notified by the university.
- b. The admission of any student admitted to M.Sc. (Geographic Information System & Remote Sensing) programme shall be cancelled if it is found at any later point of time that any document submitted or statement made by him/her in support of his/her admission is forge or false, the concern student will be solely liable for the act.
- c. No candidate shall be allowed to register as a student in any course during the academic years of his/her study for M.Sc. (Geographic Information System & Remote Sensing) programme.

FEE STRUCTURE

The fee structure for the M.Sc. (GIS & Remote Sensing) will be applicable as per the decision of the university from time to time.

S.No.	Description	Fee (₹)	Remarks
1.	Admission Fee	5000.00	One time at the time of admission
2.	Development Fee	10000.00	One time at the time of admission
3.	Tuition Fee	45000.00	Per Semester
4.	Student Activity Fee	2000.00	One time at the time of admission
5.	Caution Money	2000.00	One time at the time of admission
	(Refundable)		
6.	Registration Fee	2000.00	One time at the time of admission
7.	Examination Fee	2000.00	Per Semester Per Semester

S.No.	Description	Fee (₹)	Remarks
8.	Project Evaluation Fee	5000.00	At the time of Submission of Thesis
9.	Project Tour Fee	15000.00	One time at third semester
10.	Student Welfare Fund	2000.00	One time at the time of admission
	Total	231000.00	

- i. The excess fee realized/charged from the students of the above-mentioned courses will be adjusted in the forthcoming (next) semesters.
- ii. The fee structure may be revised from time to time by the Vice Chancellor with the permission of the chancellor, Universities of Bihar.

M.Sc. IN GIS AND REMOTE SENSING

S	Semester -1 (REMOTE SENSING) Credits: L: 2 T: 12 P: 2 = 16							
COURSE CODE	COURSETITLE	L	T	Р	CREDIT			
MSC101	PRINCIPLES OF REMOTE SENSING	0	3	0	3			
MSC 102	DIGITAL SATELLITE IMAGE PROCESSING	0	3	0	3			
MSC103	AERIAL AND SATELLITE PHOTOGRAMMETRY	0	3	0	3			
	& IMAGE INTERPRETATION							
MSC104	STATISTICAL METHODS FOR RESEARCH	0	3	0	3			
MSC105	PRACTICAL/LAB	2	0	2	4			

Semester -2 (Semester -2 (GEOGRAPHIC INFORMATION SYSTEM)		lits:	L: 2	T: 12	P: 2 = 16
COURSE CODE	COURSETITLE		L	T	Р	CREDIT
MSC 201	GEOGRAPHIC INFORMATION SYSTEM		0	3	0	3
	AND SATELLITE NAVIGATION SYSTEMS					
MSC 202	SPATIAL INFORMATION SYSTEM		0	3	0	3
MSC 203	DIGITAL SURVEYING		0	3	0	3
MSC204	GEO SPATIAL WEB TECHNOLOGY		0	3	0	3
	AND DATA DATABASE					
MSC 205	PRACTICAL		2	0	2	4

	Semester -3 (Elective) Credits: L: 3 T:	12 P	: 3 = 18	3	
COURSE CODE	COURSETITLE	L	Т	Р	CREDIT
MSC 301	RS AND GIS IN HYDROLOGY AND				
	WATER RESOURCES				
MSC 302	RS AND GIS IN AGRICULTURE AND FORESTRY				
MSC 303	RS AND GIS IN DISASTER MANAGEMENT				
MSC304	GEOINFORMATICS AND NATURAL				
	RESOURCE MANAGEMENT				
MSC 305	GIS FOR URBAN PLANNING				
	AND MANAGEMENT				
MSC306	GIS FOR DEMOGRAPHY AND HUMANITY				
MSC307	GIS AND RS IN REGIONAL DEVELOPMENT				
	PERSPECTIVE OF BIHAR				
MSC308	CLIMATIC CHANGE OF GIS AND				
	REMOTE SENSING				
MSC 309	APPLICATION OF GIS AND				
	REMOTE SENSING IN GEOMORPHOLOGY				

	1 124		
L	T credit -	- L: 3 I: P	CREDIT
0	3	0	3
0	3	0	3
0	3	0	3
0	3	0	3
3	0	3	6

S	(Credits: 20)	
SL.NO	COURSETITLE	CREDIT
1	CONCEPTUAL FRAME WORK OF THE PROJECT	1
2	FIELD WORK/LAB	6
3	SUBMISSION OF THESIS	6
4	PRESENTATION	1
5	GROUP TOUR AND PROJECT	5
6	REGULATORY AND PUNCTUALITY	1



CENTRE FOR GEOGRAPHICAL STUDIES

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