

**Ordinance
for
Master of Science (M.Sc.) Programme
in
Geographic Information System (GIS) and Remote Sensing**



**Centre for Geographical Studies
Aryabhatta Knowledge University, Patna**

M.K.Singh *Dashtibheri*
27/10/17
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Q.Siddiq
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ARYABHATTA KNOWLEDGE UNIVERSITY, PATNA

Centre for Geographical Studies

Ordinance for Admission to M.Sc. in Geographic Information System & Remote Sensing

Nomenclature:

This ordinance may be called as "Ordinance for Admission to M.Sc. (Geographic Information System (GIS) & Remote Sensing) programme in the "Centre for Geographical Studies" of Aryabhatta Knowledge University, Patna.

1. Eligibility for admission, admission policy and procedure shall be decided from time to time by the Court of the Aryabhatta Knowledge University, Patna (AKU Patna) hereafter mentioned as University.
2. The normal duration of the M.Sc. (Geographic Information System & Remote Sensing) programme, including project work, shall be four semesters (two years). The duration can be extended to a maximum of six semesters (3 academic years). The maximum limit can be extended by 1 or 2 semesters subject to the approval of university on case-to-case basis. Candidates may be permitted to do their project work in the industry and other approved organisations.
3. Award of M.Sc. (Geographic Information System & Remote Sensing) programme shall be in accordance with the regulations of the University.
4. The University will conduct this course at its headquarters and in any viable institutions affiliated to this University from the Session 2021-2022.
5. The Court of the University has the right to modify any regulations stated from time to time.

M.K.Singh

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2/8/2022

6. 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. (Geographic Information System & Remote Sensing) programme.
- c. Notwithstanding what has been stated in 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, AMIICHEM, 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, consist of 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.

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- 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).

7. 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.

N.K.Singh
Asstt. Prof.

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8. 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 (RS)	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 (Refundable)	2000.00	One time at the time of admission
6	Registration Fee	2000.00	One time at the time of admission
7	Examination Fee	2000.00	Per Semester
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.

9. Special Provisions:

The Vice – Chancellor shall have power to relax, with the approval of the Chancellor, Universities of Bihar and State Govt. any criteria and increase seats beyond the usual number of seats.

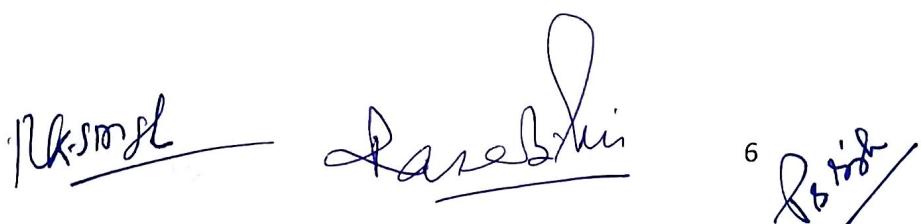

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Rules regarding Conduct and Discipline

Following rules shall be applicable to all students in the matters of conduct and discipline:

1. Students shall show due respect to the teachers and staff of the Centre and consideration should be extended to the employees of the University. They shall also pay due attention and courtesy to visitors.
2. Students are required to develop a friendly camaraderie with fellow students. In particular, they are expected to show kindness and consideration to the new students admitted to the Institute every year. Law bans ragging of new comers in any form. Acts of ragging will be considered as gross indiscipline and will be severely dealt with.
3. The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures:
 - Ragging.
 - Lack of courtesy and decorum; indecent behaviour anywhere within or outside the campus.
 - Wilful damage or stealthy removal of any property/belongings of the Institute/ Hall or of fellow students.
 - Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drug.
 - Adoption of unfair means in the examinations.
 - Mutilation or unauthorized possession of library books.
 - Noisy and unseemly behaviour, disturbing studies of fellow-students.

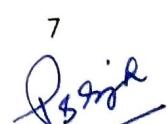
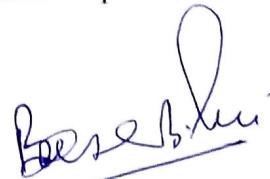
Commensurate with the gravity of the offence. the punishment may be reprimand, fine, debarment from an examination, rustication for a specified period or even outright expulsion from the Centre/University.



4. For an offence committed in:
 - a) The University campus.
 - b) The Centre or in a classroom, and
 - c) Elsewhere, the Head of the Centre and, the Dean of Students' Affairs. respectively, shall have the authority to reprimand or impose fine or take any other suitable measure.
5. All cases involving punishment other than reprimand shall be reported to the Chairman of the Disciplinary Committee. Recommendations of the committee, which include the suggested quantum of punishment in cases of proven guilt, will be submitted for approval of the Court.
6. Cases of adoption of unfair means in an examination shall be dealt with by the Head of the Centre in consultation with the Invigilators and the Paper-Setter. The Head of the Centre shall recommend appropriate measures in each case to the Vice Chancellor who as Chairman of the Court shall award the punishment and later report the matter to the Court.
7. (i) The Head of the Centre may debar a student from appearing in an examination on any of the following grounds, if the student's
 - a. Attendance in the lecture/tutorial/practical/workshop/design/field visit/project and seminar classes during the semester has been unsatisfactory.
 - b. Performance in the laboratory/workshop/design etc. and work done during the semester/project has not been satisfactory:
 - c. Conduct in the classes or in the Centre has been unsatisfactory or the student has attempted to adopt unfair means at the examination.

(ii) A student may also be debarred from appearing at an examination if there is a written report from the University Official to the effect that the student:

- a. has not cleared the outstanding dues.
- b. has been involved in an act of misconduct or indiscipline:



- c. has been involved in any such activity, which is/amounts to detrimental towards reputation and interest of the Centre/University.

General Instructions for 4-Semester Postgraduate Programme Leading to the Degree of M.Sc. (Geographic Information System & Remote Sensing) programme:

1. General Information

- 1.1** Provisions of these regulations shall come into force with immediate effect and shall be applicable to all Postgraduate courses leading to the degrees of Master of Science (M.Sc.) in Geographic Information System & Remote Sensing.
- 1.2** The Centre shall offer the Master's degree programs under these regulations in such areas or specializations as the Court may decide from time-to-time.
- 1.3** The M.Sc. Course on is being conducted by the Centre for Geographical Studies, Aryabhatta Knowledge University, Patna.
- 1.4** The Semester system of education shall be followed in Centre for Geographical Studies at M.Sc. level. Each semester will be at least **90** working days duration. Every enrolled student will be required to do a specified course work and also complete a project/dissertation if any either in the Centre for Geographical Studies or at other National Labs/Institutions. Medium of instruction will be English.
- 1.5** The duration of the course is of four semesters (2 academic years). The duration can be extended to a maximum of six semesters (3 academic years). The maximum limit can be extended by 1 or 2 semesters subject to the approval of university on case-to-case basis.

The total number of seats for the course is 40 (Forty). Reservation of SC/ST/OBC/PH/ Women candidates will be done as per the University norms.

2. Mode of Admissions



Handwritten signatures of Dr. K. Singh, Dr. A. B. Bhui, and Dr. Q. S. Jindal, likely representing the signatures of the faculty members mentioned in the document.

2.1 Admission to M.Sc. programme will be purely on the basis of the provision made in 6- b, c, d & e clauses .

3. Programme structure

3.1 A programme should have 4 semesters and 4 papers including project work.

4. Attendance Requirement

4.1 All activities prescribed under these regulations and listed by the course faculty members in their respective course outlines are compulsory for all students pursuing the courses. No exemption will be given to any student from attendance except on account of serious personal illness or accident or family calamity that may genuinely prevent a student from attending a particular session or a few sessions. However, such unexpected absence from classes and other activities will be required to be condoned by the Director/head of the centre and approved by the Honourable Vice Chancellor.

4.2 Student attendance in a course should be a minimum of 75%

5. Conduct and Discipline

5.1 Students shall conduct themselves within and outside the precincts of the Institute in a manner benefitting the students of an institution of national importance.

5.2 Detailed rules regarding conduct and discipline shall be based on the provision of the Act & Statutes of Aryabhatta knowledge University.

6. Course Evaluation

6.1 The performance of every student in each course will be evaluated as follows:

i. Internal assessment (Mid-term evaluation) by the course faculty member(s) based on continuous assessment, for 50% of the marks for the course; and Mid-term evaluation will be based on the performances of a student in quiz. Viva, seminar, assignment, class tests, mid-semester exams. etc., as prescribed by concerned faculty.

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- ii. End-Semester assessment (End-term examination) will be conducted by the University for 50% of the marks for the course.
 - iii. All the examination (Mid- and End-terms) related works including setting of question papers, answer books evaluation etc. shall be performed by the concerned faculty or as per university rules.

6.2 Internal Assessment for Practical Subjects:

In "Continuous evaluation" students shall be evaluated in a continuous manner for their involvement in the practical, aptitude for learning, completion of practical related assignments, regularity in the practicals and record keeping.

6.3 End-Semester Assessment:

- i. The end-term examination by the University for 50% of the evaluation for the course will be through written paper or practical test or oral test or presentation by the student or a combination of any two or more of these as per university provision.
 - ii. In order to earn the credit in a course, a student has to obtain grade other than 'F'.

6.4 Performance at Mid-term and End-term Examination:

- i. Minimum performance with respect to mid-term marks as well as end-term examination will be an important consideration for passing a course. Details of minimum percentage of marks to be obtained in the examinations are as follows:

Minimum Marks in End – term Exam per subject	Minimum overall marks per subject
40%	50%

M.K. Singh Dasgupta

- ii. If a candidate obtains minimum required marks per subject but fails to obtain minimum required overall marks, he/she has to repeat the End-term examination till the minimum required overall marks are obtained.
- iii. For theoretical subjects, the final grades will be awarded on the basis of Teacher's Assessment, Mid-Semester Examination and End-Semester Examination, according to the weightage given below:

Teacher's Assessment (Attendance, home assignment, assignments, class tests, tutorials, etc.)	Mid-Semester Examination	End-Semester Examination
20	30	50

7. Grading System

- i. The total marks in each course will be converted to a seven-scale letter grade on a ten-point scale to assess the performance of students in the various categories (subject, project, etc.) as per the following scheme:

Grading Scheme:

Description	Letter grade	Grade points per Credit	Range of marks (%)
Excellent	A+	10	≥ 90
Very good	A	9	$\geq 80 \& < 90$
Good	B	8	$\geq 70 \& < 80$
Fair	C	7	$\geq 60 \& < 70$
Pass	P	6	$\geq 50 \& < 60$
Fail	F	0	< 40; for theory component < 40; for laboratory component

The exceptionally brilliant performance is to be assigned an 'A+', grade. Even the best student of any class needs to be good enough to \geq be awarded the 'A+' grade. In addition, there shall be two transitional symbols used by Examiners.

I - for Incomplete

X - for Debarred.

- ii. The student's performance in any semester will be assessed by the Semester Grade Point Average (SGPA). Similarly, his performance at the end of two or more consecutive semesters will be denoted by the Cumulative Grade Point Average (CGPA). The SGPA and CGPA are calculated as follows:

$$\text{SGPA} = \frac{\sum C_i g_i}{\sum C_i}$$

$$\text{CGPA} = \frac{\sum C_i g_i}{\sum C_i}$$

where C_i is the number of credits of course g_i is the grade point for the course i and n is the number of courses in a semester

where C_i is the number of credits of course g_i is the grade point for the course i and n is the number of courses in a semesters up to which CGPA is computed.

- iii. No student will be allowed to move further if CGPA is less than 3 at the end of every academic year. Whenever these Grade Point Averages are to be used for the purpose of determining the inter-se-merit ranking of a group of students, only the rounded off values will be taken into account.
- iv. When a student gets grade 'I' during a semester, the SGPA for that semester and the CGPA will be tentatively calculated ignoring this subject.

After the 'I' grade(s) has been replaced by an appropriate grade(s), the SGPA for that semester and the CGPA will finally be recalculated taking into account the performance in the subject(s) concerned.

Further, a debarred grade "X" will be awarded if a student who:

- Is absent for a major part of a semester, or
- does not complete a major part of the laboratory/design/workshop/seminar work etc. or
- does not appear in the mid-semester examination without any acceptable ground, shall be awarded grade 'X' and he/she shall be debarred from appearing at the end semester examination of the corresponding subject(s). or A student who

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is debarred from appearing at an end-semester examination for reasons as specified by clause — (iv) will be required to re-register for the subject(s) in the next semester when they are offered by the Centre, subject to other conditions of the regulations.

V. When a student gets grade 'F' for any subject(s) during a semester, the SGPA and CGPA from that semester onwards will be tentatively calculated, taking only 'zero points' for each such 'F' grade. After the F grade(s) has been substituted by a higher grade in the supplementary examination or in a subsequent semester, the SGPA and CGPA of all the semesters, onwards from the semester in which 'F' grade was obtained earlier, will be suitably modified to take this change of grade into account.

VI. In the case of a relatively large class and/or classes where the performance level depicts more or less a normal distribution:

- a) The average performance (around mean value of marks) is to be assigned 'C' grade. However, if by teacher's/co-ordination committee's perception the general level of the class is considered to be appreciably high, the average performance may be assigned 'B' grade.
- b) All other marks to grade conversion are to be done relatively with respect to the average performance in between (but excluding) the 'F' and 'A+' grades, which have already been assigned, by choosing appropriate boundary marks between grades.
- c) Normally, in a reasonably large class of students distribution of grades is expected to be as follows:

A+	<input type="checkbox"/> 10%
A	10-20%
B, C, D	20 - 35 %
P	10-25%
F	<input type="checkbox"/> 5 %

N.K.Singh *Rambhau Joshi* *Prashant*

- d) In the case where a student appears in the supplementary examination the conversion from marks to grade would be done applying the same norm as was framed I, the original class.

9. Research Project report Evaluation

The student should submit five copies of his/her thesis/project report to the Director/head of the Centre will then forward the same to the university. The university will then forward the Thesis to two Expert Reviewers who have agreed to evaluate the Project (One Examine External & One Supervisor). Since the Thesis Advisor is also an examiner, a copy of the thesis is sent to him/her also. On the basis of the reports, the date, time will be announced for presentation/viva-voce/interview. The Thesis Defense is a Seminar Presentation by the student and he/she is required to give an account of the project/research work report in the thesis highlighting the main contributions made which is open to all. This will be essential for the award of the M.Sc. degree at the next Convocation of the University.

10. Awards of Degree

10.1 Every student of the programme who fulfils the following criteria will be eligible for the award of the degree:

- i. He/she should have earned at least minimum required credits as prescribed in course structure; and
- ii. He/she should have cleared all mid-term and end-term evaluation components in every course; and
- iii. He/she should have secured a minimum CGPA of 5.0 at the end of the programme:

10.2 The student who fails to satisfy minimum requirement of CGPA will be allowed to improve the grades so as to secure a minimum CGPA for award of degree. Only latest grade will be considered.

11. Transcript



Handwritten signatures of the Vice-Chancellor, Registrar, and the student, including the name 'N.K.Singh' and 'Rakesh Kumar'.

The transcript issued to the student at the time of leaving the University will contain a consolidated record of all the courses taken, credits earned, grades obtained, SGPA, CGPA, class obtained, etc. The M.Sc. Program will be known as: M.Sc. in Geographic Information System & Remote Sensing.

Procedure for doing Project work in Centre for Geographical Studies,

Aryabhatta Knowledge University Patna

(Applicable only to the Indian nationals studying in India or abroad)

1. The student himself/herself has to find a Supervisor in Centre for Geographical Studies, Aryabhatta Knowledge University Patna according to higher field and the Supervisor's consent to supervise his/her project work is to be sought.

2. After the Supervisor agrees to supervise his/her project work, he/she can get the form from the Centre for Geographical Studies, Aryabhatta Knowledge University Patna /download from the CGS/AKU Website.

(www.cgspatna.ac.in/www.akubihar.ac.in)

3. The duly filled application form signed by the student, Guide & Director/Head of the Centre, Centre for Geographical Studies, Aryabhatta Knowledge University Patna is to be submitted to the Office of Centre for Geographical Studies, Aryabhatta Knowledge University Patna along with the recommendations letter from his/her Director/Head and two recent photographs.

Note:

- The money received will be utilized for maintenance/repair of the laboratory equipment/instruments or towards the purchase of consumables

4. After paying the fees, the student has to submit the original form and original receipt of payment of fees to the CGS Office. Accordingly, student shall be issued a temporary Identity Card.

5. The student will be permitted to use the library facilities as per rules by using this temporary Identity Card.



6. On completion of the project work, the student has to submit a copy of Application Form wherein the Guide certifies that he/she has completed his/her project work satisfactorily with relevant details.

7. On receipt of the same, CGS will issue a 'Project Completion Certificate" to the concerned student.

N.K.Singh Hasibini

¹⁶ P.S. Singh