

Academic Guidelines

Indian Institute of Science Education and Research Kolkata

Version 2025-26

Updated on November 13, 2025



This handbook outlines academic regulations, services, and policies.

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1 General

These Academic Guidelines outline the policies and procedures governing all academic programmes at IISER Kolkata. The Senate of IISER Kolkata, one of the statutory bodies of the Institute, oversees the academic and related matters and forms policies. This document is based on the Senate-approved resolutions and serves as a comprehensive resource for students, faculty, and staff, detailing the Institute's rules and regulations. The Academic Office is responsible for implementation of all academic policies ensuring the smooth operation of academic processes.

The document is organized in the following way. The current chapter (first) describes rules and processes common to all academic programmes. Subsequent chapters describe programme-specific details.

1.1 Responsibilities

The Academic Office takes up all academic issues, both for Undergraduate and Postgraduate students, and implements the decisions taken by the Senate. The Academic Office is further responsible for:

- **Administration:-** Administrative work related to all academic programmes.
- **Academic records:-** Receiving, processing, and maintaining all records related to the all Academic Programmes
- **Analysis:-** Disseminating information pertaining to all academic matters.
- **Ceritification:-** Issuing necessary memoranda and orders related to academic matters.
- **Academic committees:-** Acting as a platform of communication among students, instructors, and the Departments.
- **Liaison:-** Liasing as the nodal point of the institute on all academic matters with external agencies.
- **Timetable:-** Preparing a timetable for regular classes and examinations.
- **Admissions:-** Conducting admissions to all programmes unless otherwise specified in the chapters on specific programmes.
- **Convocation:-** Conducting the Convocation of the Institute.

1.2 Acronyms used in the document

ABC: Academic Bank of Credits

ADoAA: Associate Dean of Academic Affairs

APAAR: Automated Permanent Academic Account Registry

BS: Bachelor of Science

BS-MS: Five-Year BS-MS Dual Degree Programme

BS-MS-CDS: BS-MS Dual Degree Programme in Computational and Data Sciences

CESSI: Center of Excellence in Space Sciences in India

CGPA: Cumulative Grade Point Average

DBS: Department of Biological Sciences

DBS: Department of Chemical Sciences

DES: Department of Earth Sciences

DMS: Department of Mathematics and Statistics

DoAA: Dean of Academic Affairs

DoSA: Dean of Students Affairs

DPS: Department of Physical Sciences

GP: Grade Points

GPA: Grade Point Average

IPhD: Integrated Doctor of Philosophy

MCWC: Mind Care and Wellness Centre

MP: Master of Science Programme

MR: Master of Science by Research Programme

MS: Master of Science

NEP: National Education Policy 2020

PGAC: Postgraduate Academic Committee

PhD: Doctor of Philosophy

RPC: Research Progress Committee

SGPA: Semester Grade Point Average

UGAC: Undergraduate Academic Committee

1.3 Academic Programmes

At present, the Institute has the following academic programmes. The operational shortcode the offered majors of these Programmes are also listed.

1. Five-Year BS-MS Dual Degree Programme (BS-MS),
 - a) Biological Sciences,
 - b) Chemical Sciences,
 - c) Geological Sciences,
 - d) Mathematical Sciences,
 - e) Physical Sciences.

2. BS-MS Dual Degree Programme in Computational and Data Sciences (BS-MS-CDS),
 - a) Computational and Data Sciences.
3. Master of Science Programme (MP),
 - a) Chemical Sciences,
 - b) Mathematical Sciences,
 - c) Sustainability Science.
4. MS By Research Programme (MR),
 - a) Biological Sciences,
 - b) Space Physics.
5. Integrated Doctor of Philosophy Programme (IPhD),
 - a) Biological Sciences,
 - b) Geological Sciences,
 - c) Physical Sciences.
6. Doctor of Philosophy Programme (PhD).

1.4 Admission

- **BS-MS and BS-MS-CDS Programmes:** Students are admitted in end-July or early August every year. The admission process is governed centrally by a Joint Admissions Committee (JAC) which is formed by all the seven IISERs and is chaired by one IISER by rotation. Details of the admission process, criteria, etc., can be found in the IISER admissions website (<https://www.iiseradmission.in>). The advertisement of the Programme is usually published at the end of February every year.
- **MP, MR, and IPhD Programmes:** Students are admitted in July every year through written examinations and interview processes as announced by the respective departments in the Institute website. The advertisements of the Programmes are usually published in the month of March every year.
- **PhD Programme:** Students are admitted twice a year, during July and December through written examinations and interview processes as announced by the respective departments in the Institute website. The advertisement of the Programme is usually published in the month of March and September every year.

All students admitted (provisionally or otherwise) to any academic programme must submit self-attested copies of their mark-sheets, (provisional) certificates and/or other supporting documents of the qualifying examination and category certificates (if applicable) within 30 days from the date of admission. The Institute may cancel the admission of any student who fails to submit the required documents by the specified date. The

Institute may also cancel the admission at any later stage if it is found that the student had supplied false information or suppressed relevant information while seeking admission.

Further, the Institute has the right to cancel the admission of any student and ask him/her to leave the Institute at any stage of his/her career on grounds of unsatisfactory academic performance, irregular attendance in classes or indiscipline.

For Scheduled Castes/ Scheduled Tribes/ Other Backward Classes/ Persons with Disability/ Economically Weaker Section/ Kashmiri Migrant candidates, the reservation policy is as per the Government of India rules.

International students are admitted through the Study in India Programme launched by the Ministry of Education (MoE), Government of India.

Selection

Please check the selection sections under relevant Academic Programme.

1.5 Registration

Registration Process

Registration of students for all semesters is centrally organized. The registration is a two-step process.

1. Every student is required to initiate the registration process through the pre-registration online portal after paying the requisite fees through online transaction, before a semester begins. Dates for this process are announced in the Academic Calendar.
2. Every student is required to provide biometric attendance to complete the registration on the first day of the semester as notified in the Academic Calendar.

The semester enrollment of a student (having coursework) in Institute's online academic portal (WeLearn) is automatically completed, provided the student has completed the above steps.

Under exceptional circumstances, a student may take prior permission for late registration from the DoSA, and from the DoAA (for Levels 1 and 2) or from the concerned Department (for Levels 3, 4, 5, IPhD and PhD). This late registration will have to be within one week of the announced date of registration. Late registration is allowed only in special cases with late fine as per norms (at present, Rs. 1000/-, which may vary from time to time). Requests for registration beyond the stipulated time will not be entertained. Allowance of any candidate not appearing for registration within the stipulated time will be done only through the recommendation of the Senate. Students who intend to join late should collect a No Objection Certificate (NOC). NOCs for all students other than BS-MS students of Levels 1 and 2, are issued by their concerned Department. The

Departments must maintain a list of students who are given such NOC and must share the same with the Students Affairs and Academic Office. Students from that list who are going to enter the campus after the registration deadline will be exempted from paying the late registration fees.

Only those students will be permitted to register who have cleared all Institute and Hostel dues of the previous semester(s), have paid all required prescribed fees for the current semester, and have not been debarred from registering for a specified period on disciplinary or any other ground. If a student remains in the Institute and utilizes the facilities, then he/she will have to pay the tuition fees.

Cancellation of Registration

Registration of a student from all the courses will be cancelled automatically, if he/she remains absent for a period of four weeks at a stretch during a semester without intimation to the DoAA. Information regarding the same has to be sent to the Academic Office by the concerned instructor. However, a student can appeal to the Chairman, Senate, for reconsideration.

Withdrawal/Resignation from the Institute

In case a new registrant decides to withdraw from the Institute, a refund of fees will be calculated as per rules. The office of Dean of Student Affairs should be contacted for the same. The student must complete Clearance of Dues process.

1.6 Academic Session

The academic session has two semesters: an Autumn Semester (August-December) and a Spring Semester (January-May). Academic session starts on the first day of the class of the Autumn semester and ends on the day before the next Academic Session starts.

1.7 Academic Calendar

The approved schedule of academic activities for a session, inclusive of dates for registration, mid-semester and end-semester examinations, result declaration, inter-semester breaks, Convocation and other important timelines are laid down in the Academic Calendar for each session. The Academic Calendar is prepared by the Academic Office which is formally announced after approval by the Senate.

1.8 Timetable

Timetable for a given semester is finalized before the beginning of the semester, on the basis of course choices given by the students.

1.9 Courses and evaluation

Every semester, all departments offer multiple courses. Courses are categorized into five levels, level 1 to level 5, in the order of increasing difficulty. Students – depending on which programme they belong to and which semester they are currently studying – may have mandatory *Core* courses, or optional *elective* courses. Elective courses may have to be selected from the departmental bouquet of courses (*departmental electives*) or maybe chosen from any department (*open electives*). The *Courses of Study* document provides a list of available courses, the semester-wise requirements of *core*, *departmental electives*, and *open electives*, and distribution of required credits across semesters.

The syllabus, the text books and the reference books to be followed for each course are mentioned in the webpage related to that course. The division of marks for theory courses is Mid-semester examination: 20, End-semester examination: 50, Internal assessment: 30. However, this division of marks is relaxed for courses in level 4 and 5.

If 3 students or less enroll in an elective course, the concerned instructor can decide whether the course should run or not. In case it is not run, the Department should inform the Academic Office so that the course can be removed from the teaching plan. However, a core course will be offered even if only a single student is enrolled.

1.10 Tutorial classes

Problem solving is an important component of most courses and tutorial classes provide scope for adequate practice. Thus, the tutorial classes associated with a course are meant for problem solving, where the course instructor, the faculty tutors and teaching assistants help the students. The person-to-person interaction in smaller groups greatly benefits the students in clearing doubts and difficulties. Presence of all students in tutorials is mandatory.

1.11 Credit structure

The number of credits will be approximately the same as the number of contact hours per week. For example, the 4-credit courses will include 3 hours of teaching and 1 hour of tutorial (or an equivalent length of time devoted to term paper, assignments, etc.). If any change in class routine is desired due to course clash of students, the concerned instructors should formally approach the Academic Office and not informally change the routine. The Academic Office will look into it and make changes, if possible. This is to avoid any unwarranted clash during examinations.

1.12 Examination

The following sections detail the usual practice of planning, conducting, and evaluating examinations.

Examination Conduct

Both Mid-semester and End-semester examinations will be centrally conducted by the Academic Office. The Mid-semester examination duration will be **1 hour 30 minutes**, and the End-semester examination duration will be **2 hours 30 minutes**. For advanced-level courses offered in Levels 4 and 5, the instructor may choose a different mode of evaluation from what is mentioned under Courses and evaluation. In that case, the instructor must intimate the same, along with the division of marks in various components of internal assessment, to the students and the Academic Office within a fortnight of the beginning of a Semester. If the instructor does not choose a different mode of evaluation, the examination will be conducted along with other batches. In addition, teachers may conduct class tests, quizzes, and may give assignments for evaluation of the internal assessment component.

The **Instructor(s)** of a course will be the **paper-setter(s) and examiner(s)** for the course. In case of multiple Instructors for a course, the HoD (or HoDs for courses offered by multiple departments) will designate a principal examiner and will communicate the information to the Academic Office. The principal examiner will have the responsibility of getting the question paper set in consultation with other instructor(s) of the course, communicating with them at all stages and finally submitting the grade.

The Academic Office will be responsible for providing attendance sheet, blank answer-scripts, extra-sheets and other stationery. The principal instructor will be responsible for bringing the question paper in necessary number to the examination hall, and for collecting the answer-scripts after counting and recording at the Academic Office counter. An instructor can submit the question paper along with the required number of photocopies to the Academic Office in a sealed envelope. If the help of the Academic Office is needed for printing of question papers, the concerned instructor should bring a hard/soft copy of the question paper in person, to the Academic Office, at least one week before the examination of his/her course. Two copies of the question paper will have to be signed by the instructor and deposited in the Academic Office counter. One of these will be kept for official record and the other will be made available in the Library.

An adequate number of faculty invigilators will be provided in the examination halls. Non-teaching staff will also be deputed in the large examination halls to assist the invigilators in distributing answer scripts, question papers, extra sheets, threads, etc. Carrying out the assigned invigilation duty is mandatory, and substitution of faculty invigilators by PhD students is not permitted. An invigilator will have to sign the answer scripts before those are distributed to the students. If an instructor/invigilator is unable to do any examination duty assigned to her/him, s/he should give the name of a substitute instructor/invigilator to the Academic Office at least two days in advance.

Evaluated answer-scripts of mid-semester exams will be shown to the students **within**

15 days or before the Autumn or Spring break whichever is earlier. Evaluated answer-scripts of end-semester examination will be made available for viewing before the submission of grades. Class tests, assignments, tutorials, viva voce, laboratory assignments, projects, etc. are important components of the continuous assessment process, and a student must fulfill all these requirements as prescribed by the Instructor. Laboratory examinations should be completed before the start of the end-semester theory examination.

Supplementary and Make-up Examinations

The supplementary exam of a particular course will be held **after one year** during the regular end-semester examination of the same course when it is offered next time. In case of clashes with exam timetable, the exam will be arranged at mutually convenient times for the teachers and the students. Supplementary exams for all final year students (BS-MS, MP, IPhD) will take place at the end of the Spring semester (within a period of 10 days from the end of the end-semester exam). Supplementary exams for 1st year IP and MP students will be held in the summer. For RS students, repeat or supplementary examinations will take place in the next available summer.

Supplementary Examination will be conducted by the respective departments. The students should be graded on the basis of the marks obtained out of 100. The marks obtained in the mid-semester exam and internal assessment may or may not be considered while awarding the grade (it is the prerogative of the instructor).

Make-up examinations: Students who are unable to appear in the end-semester exams due to serious medical reasons (like hospitalization) may clear their backlog examinations during the break before the next semester. A case will be considered as make-up only if the student provides a fitness certificate from the Institute's medical unit issued by a Medical Officer or Lady Medical Officer, specifying the period of illness that overlaps with the examination dates.

Lab course supplementary exam: Supplementary examinations for laboratory courses will be conducted during the summer vacation. Monetary compensation will be provided to the instructors for taking the extra lab classes during summer.

Completion of semester evaluation

Grades for end-semester examination must be submitted within 10 days from the date of the respective examination. After the grades are submitted, if any error in marking/grading is detected, the Instructor may request a grade change in writing to the Chairman, Senate, using a specific form. Request for change of grade may be made positively within two weeks of the start of the next semester.

1.13 Grading System

Grade Calculation

As a measure of student performance, a 10-point grading system is adopted. By default, the following range of marks are related to the grades:

- **A+:** 90-100 (10 GP)
- **A:** 80-89 (9 GP)
- **B+:** 70-79 (8 GP)
- **B:** 60-69 (7 GP)
- **C:** 50-59 (6 GP)
- **D:** 40-49 (5 GP)
- **F:** <40 (0 GP)

The instructor may change these ranges in the WeLearn system to obtain an even distribution of grades.

In case a student does not appear in the end-semester examination due to medical reasons, an Incomplete (I) grade will be indicated on the grade card, to be replaced by proper grades after the make-up examination.

A Semester Grade Point Average (SGPA) will be computed for each semester by the formula $SGPA = \frac{\sum_i C_i G_i}{\sum_i C_i}$ where C_i is the credit for the i th course and G_i is the grade point for the same course.

A Cumulative Grade Point Average (CGPA) will be computed for every student as, $CGPA = \frac{\sum_i^m C_i G_i}{\sum_i^m C_i}$ where m is the total number of courses the student has registered from the first semester onward. The CGPA will be rounded off to the second place of decimal.

When a student gets the grade I for any subject(s) during a semester, the SGPA and CGPA will be tentatively calculated ignoring these subjects and will be recalculated after the I grades have been converted to appropriate grades.

When a student gets the grade F in any course during a semester, the F grade will be appropriately replaced by the new grade obtained through a supplementary examination.

Grading policy for detained students

Students who have been detained have to repeat all theory courses. They will not be allowed to repeat the laboratory courses which they have already passed. For year-repeating students in Level 5, the MS project need not be repeated if already passed in the previous year.

1.14 Policy of Promotion

For Levels 3 to 5 BS-MS, BS-MS-CDS, MP, MR, and IPhD students

Students are allowed to take a maximum of 36 credits in a semester (32 for DMS) and a minimum of 24 credits (20 for DMS). Uncleared course credits will be counted in the semester credits. Students will be promoted to the next level if, for both Autumn and Spring semesters, the sum of the uncleared courses' credits and the core credits from the next level remains less than or equal to 36 (32 for DMS).

Promotion policy for Levels 1 and 2 of BS-MS program

For promotion to the next levels, the total number of uncleared courses must be less than or equal to three. If a student is detained in Level 2, he/she will have the option of changing the pre-major.

Common policy for all

If a student fails in a laboratory course, he/she will have to clear it during the subsequent summer recess. If he/she fails again, he/she will not be promoted to the next level. In case a student gets poor grades in a year, he/she may voluntarily choose to repeat a year to improve the CGPA, which can be done only once in the whole duration of the programme.

All students with backlogs in elective courses from earlier years will be allowed to change their electives.

If a student is promoted with a backlog course, and the syllabus changes, he/she will appear for the examination in the old syllabus.

A student will have to earn the requisite number of credits in order to be eligible for the award of the final degree from the Institute.

1.15 Academic Warning and Academic Probation

Academic warning is given to a student at the end of a semester if he/she earns an SGPA less than 5.0. If the student gets an SGPA below 5.0 in the next semester also, he/she will be placed on *academic probation*. If the student continues to earn SGPA less than 5.0 consecutively in the 3rd semester, his/her studentship will be terminated. Students who receive an academic warning are encouraged to develop a plan for academic improvement. For them, seeing the Counsellors at the MCWC is mandatory.

1.16 Termination of studentship

The following situations will lead to termination of studentship:

- **The 7-year rule:** A BS-MS student can take a maximum of 7 years to complete the programme.

- **SGPA 5 < rule:** If the student earns SGPA less than 5.0 in three consecutive semesters, his/her studentship will be terminated.

1.17 Teaching Assistant (TA)

TAs are chosen from a pool of PhD students and eligible 5th year BS-MS students. The number of TAs in laboratory courses will be 1 for up to 15 students, and that in theory courses will be 1 per 20 students. PhD students have to perform at least *two TAs* within the course of their tenure as obligatory duty, for which no TAs money will be paid. Beyond two TAs, the quantum of remuneration will be as per norm. Technical Assistants and Post-doctoral fellows may also be assigned TAs duties, but will not be paid any remuneration. The Teaching Assistants may be allowed to check answer-scripts where mechanical evaluation is involved, but the entire evaluation procedure should be monitored by the concerned instructor(s).

1.18 Leave

There is no permitted leave for the BS-MS, BS-MS-CDS, MP, MR, and IPhD students during their coursework, except Medical Leave.

PhD Student Leave

PhD students should submit a leave application to the DoAA/ADoAA through a form available on the intranet. The leave must be recommended by the concerned supervisor and the head of the department.

Medical leave

If a student falls sick during a semester, he/she must see the Institute doctor and get the recommendation of the doctor recorded in the medical book. Official leave is granted on that basis. In case of mental illness, one has to see the Counsellor in the Mind Care and Wellness Center (MCWC). Leave is not granted on the basis of the prescription of a doctor who is not associated with the Institute. The Academic office will keep the record of medical leave for each student.

The Medical Unit of IISER Kolkata can act only as the first line of action; any prolonged treatment should be done at students' home.

In case of hospitalization or an ailment that requires a student to stay off-campus, students should first submit their fitness certificate duly issued by the Medical Unit of the Institute once s/he is fit to resume studies. A re-confirmation should be done through the in-house doctor and/or a government hospital.

Students with mental health issues should be regularly counselled even after they have recovered and resumed studies, in order to ensure that they sustain a good mental health.

1.19 Academic Feedback

It is mandatory for students to submit academic feedback. In case students do not give feedback, their Grade cards and transcripts will be withheld for 6 months or next end-semester feedback period (whichever is earlier) from the date of result publication. Attendance defaulters will not be allowed to submit feedback.

1.20 Counselling for students performing below expectations

MCWC will look after the needs of the students who are not performing up to expectations. After the mid-semester examination, each faculty member should provide the names of students who have not performed well. The Academic Office will intimate the names of such students to the DoAA and DoSA for initiation of appropriate counselling. The MCWC should involve the parents and/or guardians in the counselling session.

Academically weaker students are identified by inspecting their transcript. List of such students are sent to the Undergraduate Academic Committee Conveners, who meet the students to identify the reasons for poor performance and suggest remedial actions. Also, students of levels 1 and 2 of the BS-MS Programme are assigned mentors, who monitor the academic and other activities of the mentees, and report to the Academic Office in the case of any concerns.

1.21 Academic Committees

The *Undergraduate Academic Committee (UGAC)* and the *Postgraduate Academic Committee (PGAC)* will liaise between the department and the academic office for the undergraduate and postgraduate programs, respectively. The DoAA and the ADoAA are the ex-officio Chairperson of the UGAC and the PGAC, respectively. Each department also maintains a UGAC and a PGAC.

Functions of the Departmental UGAC

- To review the curricula periodically and to suggest revisions.
- To advise students in choosing the elective courses wisely.
- To monitor the performance of students and liaise with MCWC.
- To assign project supervisors and Teaching Assistants.
- To monitor the admission process of MP and IPhD students

Functions of the Institute-level UGAC

- To propose all policy matters related to undergraduate education and place for approval of the Senate.
- To monitor the implementation of the policies decided by the Senate.

Functions of the Departmental PGAC

- To formulate the content of advertisements for admission.
- To schedule and conduct comprehensive examinations.
- To be involved in the process pertaining to MR and PhD thesis.
- To monitor the admission process of MR and PhD students

Functions of the Institute-level PGAC

- To propose all policy matters related to postgraduate education and place for approval of the Senate.
- To monitor the implementation of the policies decided by the Senate.

1.22 Storage of old answer-scripts

As per Government of India rules, all answer-scripts will be maintained for one year and then will be destroyed. Last date for viewing answer script will be the last date of the change of grade, i.e., at the end of the first two weeks in the next semester.

1.23 National Academic Depository

The **National Academic Depository (NAD)** is an initiative of the MoE, Government of India. IISER Kolkata regularly uploads student documents to Digilocker.

Academic Bank of Credits (ABC)

ABC digitally stores the academic credits earned by students from Higher Educational Institutions (HEIs) registered with ABC. IISER Kolkata uploads all grade records to ABC on regular basis. Each student must be registered with ABC with an APAAR identification number. If any students do not have this number, the institute creates an APAAR identification number for the student.

1.24 Due Clearance process

In order to initiate the process of Due Clearance, a student will have to submit an application to the Academic Office for release. A student will have to clear dues from the parent department, the Library, the Medical Unit, Student Affairs, Finance and Accounts and the Academic Office. This is mandatory for issuance of a degree certificate or a release order.

The ‘Dues Clearance’ process for a student can be initiated only if the student does not have any proceedings pending against him/her.

1.25 Research Ethics

A guideline on research ethics has to be read and signed by all PhD, IPhD, and final-year project students. At least one question from the document will be asked by the RPC

during the comprehensive examination of PhD students.

1.26 Safety Guidelines

A guideline on safety rules has to be read and signed by all PhD, IPhD, MR, MP, and final-year BS-MS students, when they start working in a laboratory. Every laboratory as well as departments should have their own "Safety Guidelines".

1.27 One-credit courses in specialized areas

1-credit courses (12 lectures + tutorials and one exam) will be offered in advanced-level topics. These courses, along with the grades obtained, will be reflected in the transcript as additional courses and will not contribute to one's CGPA. Failed audit courses are not listed in the transcript.

1.28 Audit courses

Students will be allowed to take a maximum of two Audit Courses per semester if the timetable permits and prerequisites are met. These courses will be graded, and the grades will reflect in the transcript but will not be considered for SGPA/CGPA calculation. Audit courses are not available to students in Levels 1 and 2 of BS-MS and BS-MS-CDS programmes.

1.29 AI-based software

ChatGPT and similar AI-based software should not be used by the students for writing any assignment/exam etc. and using those will be considered as a punishable offence. This is in accordance with a mandate by the Ministry of Education.

1.30 Certificates

Equivalence certificate towards MSc degree

For any specialized area, the Academic Office will send a request to the Head of the concerned Department and the certificate shall be issued based on the recommendation of the HoD. Standard equivalences are:

- **DCS:** MSc in Chemistry
- **DES:** MSc in Earth Sciences/ Geological Sciences/ Geology
- **DMS:** MSc in Mathematics
- **DPS:** MSc in Physics

CGPA to Percentage conversion certificate

The Institute provides a certificate stating that the CGPA (out of 10) may be treated notionally as a percentage by multiplying the CGPA by 10.

Bifurcation certificate

A 4-year (BS) + 1-year (MS) bifurcation certificate are issued to students on request, effective from the MS21 batch. The Academic Office also provides a 3-year (BS) + 2-year (MS) bifurcation certificate.

1.31 Year-break

Year-break without medical reasons

Interested students can submit applications to the Academic Office to take a year break. Evaluation of such applications will be done around November 1st and April 1st of any year. Students opting for a gap year will not be allowed to stay in the hostel.

Year-break due to medical reasons

For every semester-break due to medical reasons, a student must make an appeal to the competent authority. If approved, the concerned student will be charged only 20% of his/her semester fees for the relevant semester(s).

1.32 Scholarship

Students are actively encouraged to apply and earn scholarships to support their studies. The Academic Office will endorse such applications initiated by the students. However, final responsibility for the application and satisfying its requirements including renewal of the scholarship lies with the student. The guidelines provided by the funding agencies are applicable for the continuation of such scholarships

1.33 Disciplinary Regulations

Any misconduct will result in disciplinary action against the student. Misconduct includes any unacceptable behavior/act or to act on something that is unlawful and/or inappropriate. Based on the nature of the purported offence or misconduct the appropriate disciplinary committee will determine further course of action.

1.34 Awards for students

Awards and certificates are given to students based on their performance indices.

- CNR Rao Education Foundation Prize: (A prize amount of Rs. 5000/- per semester) For a student scoring the highest SGPA during the first year (in both the first and second semesters) of the BS-MS programme.
- Director's Gold Medal to students securing the highest CGPA in respective departments in the BS-MS Programme and Master of Science Programme
- Chairman's Gold Medal for best academic performance to a student securing overall highest CGPA across all departments in the BS-MS Programme

- Chairman's Medal of Excellence to the best-performing student for all-round performance chosen on the basis of academic performance, extra-curricular activities, involvement in students' bodies, and helping the society.
- Chairman's Medal of Commendation to the best-performing student (from doctoral programmes) for all-round performance chosen on the basis of academic performance, extra-curricular activities, involvement in students' bodies, and helping the society.

2 Five-Year BS-MS Dual Degree Programme

2.1 Introduction

IISER Kolkata offers a Bachelor of Science and Master of Science (BS-MS) Dual Degree Programme wherein a unique training programme is offered to students through a balanced schedule of class room lessons, project and research work. While the Institute aims at comprehensively training the students in each of the major subjects, much attention is also directed to the development of an inter-disciplinary perspective.

The following Departments are currently offering a Major under this Programme:

- Department of Biological Sciences (Major in Biological Sciences)
- Department of Chemical Sciences (Major in Chemical Sciences)
- ~~Department of Computational and Data Sciences (Major in Computational and Data Sciences)~~
- Department of Earth Sciences (Major in Geological Sciences)
- Department of Mathematics and Statistics (Major in Mathematical Sciences)
- Department of Physical Sciences (Major in Physical Sciences)

A Minor is also offered by these 5 Departments as well as by the Department of Computational and Data Sciences, and the Department of Humanities and Social Sciences.

Duration

The duration of the Programme is five years. However, in line with the National Education Policy (NEP), there are also credit-based exit options at multiple levels, offering earned credentials of Certificate, Diploma, BS Degree, and BS Degree with Research. The details are given in the table under Credit Structure below.

Admission

The admission process is governed centrally by a Joint Admissions Committee (JAC) which is formed by all IISERs and is chaired by one IISER by rotation every year. Details of the admission process, criteria, etc., can be found in the IISER admissions website (www.iiseradmission.in/).

2.2 Credit structure

The total number of credits required for the award of the BS-MS degree is 253 credits for DBS, DCS, DES, and DPS, and 229 credits for DMS with effect from the MS18* Batch and upto the MS22* Batch. From Batch MS23 onwards, the total credit requirement for the award of the BS-MS degree is 244 credits for DBS, DCS, DES, and DPS, and 220 credits for DMS. *MSXX indicates students in the current batch of that year (including

year-repeaters, if any). Please refer to the 'Courses of Study' document on the Institute website for an overview of Levels 1 to 5, a distribution of credits across the semesters of Levels 1 to 5, and the core and the elective courses to be taken in each semester.

The following table shows the credits a student needs to earn for Certificate, Diploma, BS Degree, BS Degree with Research, and MS Degree, as well as for Major and Minor in a stream.

Earned credential	Credit type	MS23 onward		MS22 or earlier	
Certificate	Total	49		58	
Diploma	Total	100		109	
		Non-DMS	DMS	Non-DMS	DMS
BS	Total	148	140	157	149
MS	Total	244	220	253	229
Major (BS)	Departmental	87	75	81	69
Major (MS)	Departmental	147	123	141	117
Minor	Department	39 (28 for CS)		33 (26 for CS)	
With Research	Project, Dept	16	12	16	12

A student must have one major department, two premajor departments and two non-premajor departments. A student may have backlogs in courses (at most two) and yet will be considered for a degree provided he/she satisfies the minimum credit requirements. If the student satisfies the minimum credit requirements and yet has a few backlogs, those failures may be revoked. The student must clear all core courses (particularly in the levels 1 and 2) for the consideration of the degree.

2.3 Programme Levels

Level 1

The first level of the Five-Year BS-MS Dual Degree Program will have 29 credits in each semester in the following courses: Courses in five disciplines of basic sciences viz., Biology, Chemistry, Earth Science, Mathematics, and Physics. All students would attend courses on Communicative English, and Introduction to Philosophy/Sociology. The students would be divided into two batches depending upon their level of exposure to English. In the 1st semester, Batch A would register for Communicative English while Batch B would learn Introduction to Philosophy/Sociology. In the second semester, Batch A would learn Introduction to Philosophy/Sociology while Batch B would learn Communicative English.

Level 1 for MS23 Batch onwards:

Each of the natural sciences (Biology, Chemistry, Physics) will have a single lab course (weekly three hours) in the first year. Together with computer sciences, there will be four laboratory courses (two in each semester) in the first year. For courses (offered by DES, DMS) without a laboratory component, the weekly contact hours are 2+1+1 hours of classroom activities. It is 2 hours of theory class + 1 hour of optional tutorial class and 1 hour of a supplementary interactive session. The mathematics courses offered in the first

year will train students in mathematical methods as well as regular 1st year mathematics content. This will ensure that every student has the choice of opting for any pre-major including mathematics.

Level 2

At this level students have to choose three 'Pre-Major' disciplines. In the 2nd year 1st semester one has to earn 7 credits in each pre-major subject and a compulsory Mathematical Methods course of 3 credits. Total credit in the 2nd year 1st semester will be $7 \times 3 + 3 = 24$. In the 2nd year 2nd semester, a student has to do 8 credits in each pre-major subject and a compulsory Computer Science course of 3 credits, totalling $8 \times 3 + 3 = 27$ credits.

Level 2 for MS23 Batch onwards: There will be three premajors in the Autumn semester and two premajors in the Spring semester. The two premajors of the Spring semester would be (i) the Major, (ii) another one of the three. The Major will be decided after the third semester. Total number of credits will be: $3 \times 9 = 27$ in Autumn and $(2 \times 10) + 4$ (CDS) = 24 in Spring.

Level 3

In the third level, students are required to choose a 'Major' discipline from the two pre-major disciplines chosen in Level 2, Semester 4. Scores could be used at the end of 3rd semester to only decide the two pre-major subjects.

Students who give their first choice for a department and have no failures or incomplete courses in the corresponding subject may join the department. This will also be applicable to students who are repeating the third year and would like to change their major (except for the academic year 2025-26, due to a clash with the previous policy). Students who do not get a Major due to failures will have to repeat a year even if they have 3 or fewer failures. In that case conditions of year-repeat will be applied. He/she may seek permission to change the pre-major disciplines.

A student can change his/her Major within a week from the start of the 5th semester, provided he/she satisfies the requirements of that department. Also, the changing of Major will require consent from both the departments (leaving dept and joining dept).

Students will have to take five core courses from the selected discipline (major). In addition, one course is to be chosen as elective (Departmental/Open) which must be a theory course. The elective course may be chosen from the same department or from another department that the student chose as pre-major in the 2nd level.

Level 4

In the fourth year, core and elective courses are offered. There will be departmental electives (which have to be chosen from among the electives offered by the major department), and open electives (which can be chosen from any department including the major department). Students may also choose to do NPTEL online courses as electives in the 4th or 5th Levels of the BS-MS Programme. These courses have to be in areas where courses are not offered by IISER Kolkata. However, the timing of the chosen NPTEL course(s) should be concurrent to IISER-K class and exam schedule, and a student wishing to take an NPTEL course should first submit a request to the concerned department for approval.

Level 5

In the fifth year, a student has to do a dissertation (research project) along with some advanced courses. The project work will be evaluated on the basis of the project report and a seminar. Students may also choose to do NPTEL online courses as Electives in the 5th level of the BS-MS Programme as detailed in 2.3.4.

Earning a Minor

In 3rd to 5th levels students may choose open elective courses from any department. One can earn a Minor in a second discipline if (a) he/she had taken that discipline as pre-major in the 2nd level and (b) he/she earns an additional 12 credits in the 3rd-5th levels in subjects offered by that department. The earned 'Minor' will be mentioned in his/her Degree Certificate. Apart from DPS, DMS, DCS, DES, and DBS, one can also earn a Minor in Computational and Data Sciences (CDS), and Humanities and Social Sciences (HSS). To earn a minor in CDS, an additional 20 credits must be earned from electives offered by CDS or particular Senate-approved DMS courses or NPTEL courses approved by CDS.

Earning a Major

A minimum of 120 credits in core and departmental elective courses of the 3rd-5th levels will be required to earn a Major in a subject for DBS, DCS, DES and DPS. For DMS, a minimum of 96 credits in core and departmental electives earned in 3rd-5th levels will be required.

2.4 BS Project at Level 4

The structure of the BS project may be decided by the concerned Department, but the project must have a total of 16 credits. The BS with Research' choice should be made by the students at the end of their 7th semester, except for DBS students who would have to make the choice at the end of their 6th semester (Level 3). The application must be

duly forwarded by the Head and the UGAC Convener of the concerned Department. If a student decides to continue with MS (after opting for a 16-credit BS project in Level 4 in lieu of 4 regular courses), s/he will have to complete those four regular courses in Level 5, in order to get a BS-MS degree. For such students, the project credit in the Spring Semester will be 16 credits less than usual.

2.5 MS Project at Level 5

Protocol for choice of supervisor for MS project

The UGAC convener of a particular department will contact all the 5th year BS-MS students asking for their preferred MS project supervisor. The respective Departments will devise methods to assign MS supervisors to students.

Submission of Project report

The submission of Masters' project report by the final year BS-MS students will be fully online. Once a student submits the project report file, the same will be endorsed by his/her supervisor in the same portal after getting a satisfactory plagiarism check from the Library. The Library will assign a unique url to the project report, which would be made available online based on mutual consent of both student and advisor. Consent from the student and the supervisor(s) will be taken that the Institute will have the right to keep a copy of the project report.

Format of MS Project

MS Project Report should be submitted in pdf format (not doc or docx). The certificate page should contain the signature of the supervisor, which can be scanned and inserted in the pdf file. Font type and Size is Times New Roman, 12 point, with 1.5 Line Spacing. The front page should contain Title, Degree, Student Name and Roll No., Supervisor/Co-Supervisor Name, Department, Institute Name with Logo, and Month/Year. It should also contain a declaration of academic integrity and a certificate from the supervisor.

MS Project carried outside the Institute

Normally the 5th year project should be done within IISER Kolkata. However, if the Institute does not have faculty in the area of interest of a student, he/she may be allowed to do the final year project outside the Institute provided the coursework is not hampered, and a co-supervisor from IISER-K is allotted. In case supervisor is not from IISER-K, the Co-Supervisor from IISER-K will be accountable for ensuring completion of academic requirements of a student as per IISER-K rules. In case a student wishes to do a part of the project work in another Institute, he/she should submit an application to the concerned Department UGAC Convener for approval. The concerned Department will

issue a No Objection Certificate. A student must give a presentation upon his/her return and submit a report to the concerned Department.

2.6 Independent Study

A student may choose a course for Independent Study which is not offered by the Institute as a taught course. One cannot do this course in the same area in which he/she is doing the final year project. Courses with only one student should be treated as Independent Study courses.

2.7 Attendance

Attendance in all classes (lectures, tutorials, laboratories) is compulsory. For 1st and 2nd years, a rule of **60% biometric attendance** is enforced. For all students not having 60% attendance, the course total will not include mid-semester and/or end-semester marks, as the case may be. For 3rd year and above, Instructors must inform the Academic Office at the beginning of the semester about their plan and weightage distribution of attendance and whether it will have any bearing on examination eligibility. At any point of time, if a student's attendance goes below 60%, the concerned instructor should report it to the Academic Office and the DoSA who will ensure that the student is appropriately counselled.

2.8 Termination of studentship

The following situations will lead to termination of studentship:

- **The 7-year rule:** a BS-MS student can take a maximum of 7 years to complete the programme.
- **SGPA < 5 rule:** If the student earns SGPA less than 5.0 in three consecutive semesters, his/her studentship will be terminated. However, the student will get a last chance in the subsequent summer supplementary to improve the SGPA.

2.9 Continuation of Fellowship

The fellowship rules are governed by the respective funding sources like INSPIRE or KVPY. At the end of every semester, the Academic Office will communicate the students results to the funding agencies, and the decision to continue / discontinue fellowships entirely lies with them. IISER Kolkata has no say in this matter.

2.10 MS to PhD Switch over

A student can apply for switch-over from BS-MS to PhD program of the Institute any time after the commencement of 5th year of the program. Students of the MS by Research Programme and Master of Science Programme may also apply for switch-over. The student must have the required CGPA at the time of switch over, and must maintain the same until the end of the 5th year. For IISER-K funded General category students, the CGPA may be ≥ 8.5 , and for reserved category CGPA may be ≥ 8.0 . In case the CGPA

of a student falls below the required number, his/her candidature as a PhD student will be cancelled. BS-MS students may apply for "BS-MS to PhD switch over programme" till the end of their 10th semester. Their selection interviews will be conducted along with the selection interviews of the new PhD applicants. The students thus inducted into the PhD programme are encouraged to bring their own fellowships from external funding agencies. For these students, coursework will be waived except the Research Methodology Course (if not done during MS course work).

3 2-Year Master of Science (MS) Programme

3.1 Introduction

The Master of Science (MS) programme is a programme launched in the Academic Year 2022- 2023 offering a Master's degree in a period of 2 years. This program is presently offered by the Department of Mathematics and Statistics (DMS) and the Department of Chemical Sciences (DCS). However, other departments may also offer this programme in future. It will extend an immersive and flexible learning experience to bright undergraduate students selected competitively from across the country. The programme has an increased emphasis on coursework with research experience gained through a project in the second year. The programme aims to provide young motivated individuals with a rigorous training, a desired level of scientific understanding, and a glimpse of contemporary global research at an early stage to enable them to pursue a career in teaching, innovation, and scientific research and development. It must be mentioned here that the maximum tenure of studentship is 3 yrs.

3.2 Details

- **Name of the Program:** Master of Science
- **Major:**
 - Mathematical Sciences
 - Chemical Sciences
 - Sustainability Science
- **Duration:** 2 years (4 semesters)
- **Total Credit:**
 - Department of Mathematics and Statistics: 80
 - Department of Chemical Sciences: 96

3.3 Course Structure

For a list of courses and the semester structure, please refer to the 'Courses of Study' document in the Institute's website under the 'Academic' tab.

Levels

- **Level 1:** In the first year, only core courses are offered, except for in 'Sustainability Science' where students would have the option to choose electives from a basket of courses
- **Level 2:** In the final year, a student has to do a dissertation (research project) along with some advanced courses. The project work will be evaluated on the basis of the project report and a seminar.

There will be departmental electives (which have to be chosen from among the electives offered by the major department), and open electives (which can be chosen from any department). Details of the core, departmental elective and open elective courses have to be obtained from the ‘Courses of Study’ document.

MS Project carried outside the Institute

Normally the 2nd year project should be done within IISER Kolkata. However, if the Institute does not have faculty in the area of interest of a student, he/she may be allowed to do the final year project outside the Institute provided the coursework is not hampered, and a co-supervisor from the parent department of IISER-K is allotted. In case the supervisor is not from IISER-K, the Co-Supervisor from IISER-K will be accountable for ensuring the completion of the academic requirements of a student as per IISER-K rules.

In case a student wishes to do a part of the project work in another Institute in India or abroad, he/she should submit an expression of interest in the field of proposed research, an offer letter from the host Institute, and/or MoU (in case of foreign universities) and financial statement, on the basis of which the concerned UGAC Convener and the Department will forward the request to DoAA. In such a case, the concerned Department should have a Co-supervisor who will be accountable to ensure that the academic requirements of the student are fulfilled as per IISER-K rules. A student must give a presentation upon his/her return and submit a report to DoAA, duly forwarded by the concerned Co-Supervisor, the UGAC Convener, and the HoD.

3.4 Course Policy

The curriculum of MS, 2 years in duration, consists of 4 semesters of coursework. In the 4th semester, one may avail the option to choose two elective courses along with a master’s project.

3.5 Leave rules for MP students to attend conference /workshops

For the final year MP students, the leave must be recommended by the supervisor, provided they do not have any course work during the leave period. Other students should not be allowed to attend conference/ workshop etc. during academic session.

3.6 Termination of Studentship

A student will have to forfeit the course if he/she earns SGPA less than 5.0 for three consecutive semesters. A student will have a maximum of three opportunities of passing a course (the regular end-semester examination and two supplementary examinations) in case of first year and a maximum of two opportunities (the regular end-semester examination and one supplementary examination) in case of second year. In case of failure in three attempts, his/her studentship will be terminated. In case of failure in an elective course after first supplementary exam, the student will have an option of

choosing a different elective in the next semester (provided there is no time table clash). He/she will have to clear it in one attempt, failing which he/she will be terminated from the programme.

3.7 Protocol for choice of supervisor for MS project

The UGAC convener of a particular department will contact all the 2nd year MS students asking for their preferred MS project supervisor. The students will send names of three faculty members according to preference. On receipt of all the preferences, the UGAC convener of the department and the HoD will consider the first preference of a particular student and the HoD will contact the respective faculty member to take his/her opinion. If the faculty member agrees to take him/her, then the student will be assigned to that faculty. Each faculty member must take at least one 2nd year project student in his/her group, if the number of students is more than the number of faculty members in the department. The HoD will decide the maximum number of students a faculty member can take in a particular year, but this number should not exceed 4.

3.8 Final year MS Project Report

The submission of Masters' project report by the final year MS students will be fully online. Once a student submits the project report file, the same will be endorsed by his/her supervisor in the same portal after getting a satisfactory plagiarism check from the Library. The final files of all outgoing students will be shared with the Library. The title and the abstract of the report could be accessed from anywhere. However, the access to the soft copy of the entire report will be provided if the supervisor gives a consent.

MS Project Report should be submitted in pdf format. The certificate page should contain the signature of the supervisor, which can be scanned and inserted in the pdf file. Font type and Size: Times New Roman, 12 point. Line Spacing: 1.5.

3.9 Award of the MS Degree

On receipt of the approval of the Senate, the MS degree may be conferred in the next convocation after course completion. Director's Gold Medals will be awarded to the toppers of the Master of Science Programme, in line with that of the BS-MS Programme. The potential awardees must satisfy the following criteria:

- a) The student(s) must not have any failures in any course. However, incomplete courses (due to medical causes) will not be treated as failures.
- b) The student(s) must have the highest CGPA within the batch for a specific department. The CGPA requirement is set at 8 and above.
- c) There must be at least five students in the specific batch at the time of graduation, excluding the repeating students (non-medical) from the previous year.
- d) The student must not have any pending disciplinary cases against his/her name.

3.10 Exiting with Postgraduate (PG) Diploma

PG Diploma is offered as an exit option with a minimum credit requirement of 40 credits as per UGC guidelines, is offered to all 2-year Masters programmes (Master of Science, MS by Research, Masters' part of Integrated PhD).

4 MS by Research Programme

The “MS-by-Research” programme is a Master degree programme of two-years duration. It has been launched by IISER Kolkata in order to attract non-science graduates (engineering, medical, etc.) who are motivated to conduct research in the basic sciences. There are areas in frontiers of basic sciences (viz. interdisciplinary areas of Materials Science, Nonlinear phenomena, Nano-systems, etc.), in which brilliant engineers or technologists can contribute significantly as a team member. The program is thus meant to be beneficial for the student as well as for the group he or she works with.

4.1 Selection Process

Based on the evaluation of applications following an admission call, some candidates are short-listed and called for interview. Recommendation letters may be sought for short-listed candidates. Final selection is based on the performance in the interview, academic background of the candidate and any other criterion determined by the selection committee. No candidate may be selected if suitable candidates of sufficient quality are not found.

4.2 Details

- i. Name of the Programme: MS by Research
- ii. Duration: 2 years (4 semesters)
- iii. Eligibility: BE/BTech/MBBA Graduates (more details available in the advertisement)
- iv. Total Credit: 78

4.3 List of Courses and Semester Structure

Please refer to the *Courses of Study* document in the Institute’s website homepage under Academic tab. Candidates will have to clear any failed courses in the supplementary examination to be eligible for award of the *MS by Research* degree. Fellowship is contingent upon maintenance of a **CGPA of 6.0 or above** and no backlog.

4.4 Promotion Policy

Please refer to the promotion policy detailed in Chapter 1 of this document.

4.5 Termination of studentship

Please refer to the termination policy detailed in Chapter 1 of this document.

4.6 Thesis Submission

The PGAC of the respective department will administer the MS by Research Programme and will monitor the progress of each student. A student of this Programme will be associated with a specific faculty member or a research group, as recommended by the PGAC. At the end of two years, a dissertation will have to be submitted by the student.

The dissertation will be evaluated by the supervisor of the student and two examiners (one of them from outside the IISER-K). If the dissertation is found acceptable, the candidate will have to defend it through a seminar, conducted before a committee of examiners as well as other interested listeners. The deadline of thesis submission should be around **10 April**, which will allow one month's time for the thesis evaluation by external reviewers. The external reviewer will be intimated a month in advance regarding the proposed date of viva voce. In case of inability of the reviewer to physically come to the Institute, online presentation may be arranged. The format of the MS Project Report will be the same as prescribed for the BS-MS students, as detailed in Chapter 2 of this document.

5 Integrated PhD (IPhD) Programme

5.1 Introduction

The Integrated Doctor of Philosophy (IPhD) Programme at IISER Kolkata is aimed at attracting talented and innovative fresh undergraduate degree holders towards cutting-edge research in basic sciences. In the IPhD programme, the students are offered specialized coursework of 96 credits for the first two years. In the second year of the program, they also carry out a project to acquire research and analytical skills before they embark on their research leading to the PhD thesis. The admission to the IPhD Programme is conducted across three departments - Biological Sciences, Earth Sciences and Physical Sciences. The eligibility criteria for application to this Programme are uploaded in the Application Portal of the Institute website around March-April every year. Students are admitted through a department-level selection procedure comprising initial shortlisting on the basis of academic scores, a written test, and an interview. An application fee is Rs. 200/- for general candidates and Rs.100/- for reserved categories.

For the first two years they are treated as MS students and the rules and regulations pertaining to MS students would apply. From the 3rd year onward, they are treated as PhD students, and the rules and regulations pertaining to the PhD Programme would apply (see Chapter 6). The fellowship tenure of the Integrated PhD Programme will be of **6 years**, with effect from Academic Session 2020-21.

5.2 Credit Structure

The total number of credits for the MS programme will be **96 credits**. Refer to the 'Courses of Study' document in the website homepage under 'Academic' tab.

5.3 Integrated PhD (IPhD) Project

The distribution of the IPhD Project over the duration of the Programme can be different for different departments. There is credit assigned to the project work in each semester in this period, and Evaluation will be done on the basis of a presentation and a report. A project report has to be submitted in each of the project semesters, containing a literature survey, problem statement, and a detailed account of the research results. Students will submit their project reports only to their concerned departments; it is not necessary to submit a copy to the Academic Cell. The student will have to make a presentation before the **Research Progress Committee (RPC)**. The RPC will be formed at the start of the 3rd Semester. The project has to be evaluated by the RPC.

5.4 Course work, Comprehensive Examination and Promotion

Course work and Comprehensive Examination

The comprehensive Examination must be conducted **within 1 month of the** completion of the MS project (Senate approval item). In addition to the mandatory viva voce,

a department may choose other means of evaluation, like written test. During the master's coursework, if an IPhD student is unable to meet the promotion criterion, his/her studentship will be terminated without award of any degree. Collection of grades of the IPhD students and updating the same in WeLearn will continue to be under the purview of the UGAC.

Promotion

A maximum of three years is allowed for the completion of the course-work requirement. The fellowship at the MS level will be stopped if the CGPA falls below 6. A **minimum of 6 CGPA** will be required to register as a PhD student. If the student does not have a CGPA value of 6, yet completed the requirements for MS, then the student will exit with an MS degree (Graduated with MS).

5.5 Supervisor

In the semester in which the IPhD Project starts, the department PGAC committee will assign each student to a research supervisor, taking into account the student's choice of supervisor, research interests and performance in the course work and consent of the faculty member concerned. A student may not change his/her IPhD Project Supervisor during the period of the Project, but may be assigned a co-supervisor, if approved by the supervisor. The student may **change his/her supervisor only once** within the first month of the semester immediately after the completion of his/her IPhD Project work. Any further change of the supervisor is not allowed.

If a student wishes to work with an IPhD Project advisor from a department other than his/her parent department, he/she may do so with the permission from the Heads of both the departments. His/her PhD degree will be awarded from his/her parent department.

5.6 Fellowship Structure

An IPhD student will get the basic scholarship (12,400/-per month) for the first two years provided his/her CGPA does not fall below 6.0 and/or he/she does not have any backlog. The scholarship will be restored if the CGPA goes above 6.0 in the subsequent academic year. The MS fellowship might be provided until the students clear all the courses upto a maximum period of three years. However, the total fellowship tenure (i.e. 6 years) of the IPhD Programme will remain unchanged.

The student will be entitled to get the Institute JRF Scholarship (PhD scholarship) from the next semester after he/she has passed the course work and subsequently cleared the comprehensive exam. Upgradation to the SRF position and fellowship will be governed by the rules of the Institute-funded PhD Programme. IPhD Students will be entitled to get full fellowship for a total period of 6 years (2 years MS+ 4 years PhD).

IPhD students are given TAsip opportunities after completing their coursework. TAsip

are allowed in multiple courses for a single semester with the consent of the supervisor and departmental UGAC. Every TAship instance should be rewarded (except the first two for PhD/IPhD students).

5.7 External Funding

IPhD students are strongly encouraged to apply for external fellowships (such as CSIR, UGC, and INSIPRE) etc. However, an IPhD student cannot activate his/her external research fellowship unless he/she qualifies to continue as a PhD student.

5.8 PhD Thesis

- i. Once the student completes the coursework, she/he will be considered as an Institute JRF from the beginning of the third year.
- ii. Once the credit requirement (96 credits) is completed, the rest of the IPhD Programme will be regulated by the guidelines of the PhD Programme (see Chapter 6).
- iii. The PhD Thesis of an IPhD student may not be submitted and defended before the end of the fourth year after admission, and the PhD degree may not be awarded before the Convocation at the end of the fourth year.
- iv. The format of the thesis will be the same as prescribed for the PhD students.

5.9 Registration

Registration of IPhD students will be **valid for 8 years**. For fellowship tenure, see Point 5.6 above.

5.10 Award of Degree and Exit Options

An MS degree can be awarded to all the IPhD students who have fulfilled the MS coursework requirement, only after due submission of the MS project. At the end of the Programme students are awarded the PhD degrees.

Exiting with Postgraduate (PG) Diploma: PG Diploma is offered as an exit option with a minimum credit requirement of 40 credits as per UGC guidelines, is offered to all 2-year Masters programmes (Master of Science, MS by Research, Masters' part of Integrated PhD).

6 Doctor of Philosophy (PhD) Programme

6.1 Introduction

The goal of the Doctor of Philosophy (PhD) Programme at IISER Kolkata is to introduce students to cutting-edge research and to stimulate their intellectual development. IISER Kolkata strives to provide world-class training to its PhD students so that they gain the confidence to become independent researcher. The Institute offers PhD Programme of five years tenure in the following disciplines – Biological Sciences, Chemical Sciences, Earth Sciences, Mathematics & Statistics, Physical Sciences, Space Physics, Computational and Data Sciences , and Humanities and Social Sciences.

6.2 General guideline for the award of PhD degree

IISER Kolkata awards the degree of Doctor of Philosophy (PhD) to a student who has successfully completed the stipulated Programme of research. The PhD Programme of research and its governing rules and regulations are formulated by the Academic Senate of the Institute. The Senate can modify or change the structure and the governing rules from time to time. To be eligible for the PhD degree, a student must submit a thesis embodying the findings of her/his research carried out under this Programme. The thesis should make original contributions of high quality, contributing to the advancement of knowledge, which will be judged by the experts in the relevant area. The award of PhD degree shall be made upon the recommendation of the Senate. The awarded degree will be “Doctor of Philosophy,” and the certificate will mention the title and the year of the thesis.

6.3 Admission

Protocol for student intake for PhD at IISER Kolkata

The following points may be considered while choosing candidates for PhD at IISER-K:

- The academic office will inquire from the HoDs for requirements for PhD students in the respective departments.
- The required information will reach the academic office through the departmental PGAC Conveners/HoDs.
- The academic office will inform about the possible quantity of intake for the PhD Programme to the HoDs as approved by the Director through the members of the Post Graduate Academic Committee (PGAC).
- The number of students per faculty member cannot exceed the upper limit of 12.

Channels of Admission

Regular Channel:

Selection to the PhD Programme is made twice a year - between May and July (for the Autumn Semester beginning in August) and between November and December (for the Spring Semester beginning in January). The PhD admission process is coordinated by the Post Graduate Academic Committee (PGAC). Advertisements are issued in the Institute website in February/March for the Autumn Semester and in August/September for the Spring Semester. Applications are accepted online through an application portal. An application fee is Rs. 200/- for general candidates and Rs.100/- for reserved categories.

PhD students joining from other Institutes:

If a student of another Institute/University wants to move to IISER Kolkata, he/she has to qualify through the regular admission process, however the admission will remain provisional until the external funding agency (if applicable) approves the Transfer of Fellowship. Transfer of fellowship will be the responsibility of the candidate, the supervisor and the PGAC. The student will have to do all regular course-work, appear for the Comprehensive Examination and the Graduate Seminar, and, therefore, fulfil all the requirements of the PhD degree in the Institute of a regular applicant.

Students working in sponsored projects:

Students working in sponsored projects in the Institute (as project JRF or equivalent position) are not entitled to join the PhD Programme automatically. Project JRF student can enter the main PhD Programme of the Institute only if:

- The student has qualified in at least one National level examination.
- The student goes through the rigorous PhD selection interviews.
- After the duration of the project unless the student earns his own fellowship, the supervisor will arrange for fellowship from his/her ARF or from other sources.
- The student and the Supervisor sign a declaration agreeing to the condition mentioned above.

Transition to Part-time PhD:

If a regular PhD scholar, who has worked at least two years at IISER Kolkata and has been promoted to SRF, gets a job and wishes to leave full-time PhD work, he/she may be allowed to complete the work as a part-time PhD student without any fellowship, subject to approval of the supervisor and the RPC. The upper limit of the total PhD tenure for these candidates will also be 8 years (up to submission of the thesis).

Students of newly joining faculty members from other universities/institutes:

If a faculty member of another Institute joins IISER Kolkata, his/her existing students may be admitted as per the following rules:

- If a student had joined the faculty member within the past three months, the student will have to give fresh interview at IISER-K.
- A relatively older student will present his/her work at IISER Kolkata in front of a committee comprising the PGAC and the Head of the department. This committee will interview the student before admission and review the coursework already done.

Joint PhD Program and Research Partnership Program:

IISER Kolkata has several umbrella MoUs with various organizations for Joint PhD Programs. For the Joint PhD Program where both the institutes can offer degrees, logos of both the degree-awarding institutes should be included in the degree certificate.

Foreign nationals:

Foreign nationals will be admitted to the PhD Programme only through the “Study in India” portal of MoE. IISER Kolkata also invites direct applications from foreign students for the PhD Programme. These applicants have to register on the StudyInIndia portal to receive a unique student ID, which is mandatory for a visa.

Minimum Eligibility Criteria

- **For students with own fellowship:** Students with independent PhD fellowship from external funding agencies (e.g. CSIR, UGC, INSPIRE, etc.) and having a minimum of 55% marks in their Master’s degree are eligible to apply.
- **For students without any fellowship:** An applicant must have qualified at least one national level exam (e.g. GATE, JEST etc.) and must have a minimum of 55% marks in the Master’s degree.
- Students will also be admitted based on merit, with a CGPA ≥ 8.5 for the general category, and ≥ 8.0 for the reserved category.
Fulfilling the minimum eligibility criteria does not ensure that a candidate will be called for the interview. Relaxation for SC/ST & OBC candidates will be as per prescribed Government of India norms.

Part-time PhD for professionals (Industry/Academia)

The Institute offers a part-time PhD program designed for professionals from industry, government institutes, organizations, and academia.

- **Eligibility criteria:** Master’s Degree with minimum 55% marks OR 4-year/8-semester bachelor’s degree with a minimum of 75% marks. Candidates should be less than 50 years old while commencing the PhD. A minimum of 3 years of regular professional experience is required. A No Objection Certificate (NOC) from the employer is mandatory.

- **Modalities:** Candidates must qualify the PhD selection interview. Completion of coursework at IISER Kolkata is required. The maximum tenure of the programme will be 7 years. Fellowship and accommodation will not be provided by IISER Kolkata.

6.4 PhD Registration

The selected candidates are required to complete the online registration process after paying the requisite fees. Until the verification of the documents is done by comparing with the originals, the registration will be considered ‘provisional’.

Students waiting for their final Master's Degree result may be provisionally selected but must furnish the final result satisfying the qualification criteria within 30 days from the date of admission. Scholarship will not be given to provisionally admitted students until the production of the final result.

The valid tenure of the PhD registration will be 8 years ($5+1+1+1=8$). Extension beyond the fifth year will require recommendation of the RPC each year. The fellowship will be valid for 5 years only unless it is from an external agency where the fellowship rule of the external agency will prevail.

6.5 Appointment of PhD Supervisor

Generally, a supervisor will be assigned to a student by the PGAC within two weeks from the date of admission through mutual consent. All regular faculty members of the institute can supervise PhD students. A regular faculty member whose service is remaining for 5 years or less but more than three years may take fresh PhD students, but a co-supervisor should also be allotted. A faculty member whose service is remaining for 3 years or less can only act as co-supervisor to fresh PhD students.

Faculty members on contract may also supervise a PhD student provided a regular faculty member from the same department is allotted as co-supervisor. A co-supervisor may also be chosen from another Institute/University.

Change of supervisor is generally discouraged and is permitted only under very special circumstances.

6.6 PhD Course Work

PhD students of IISER Kolkata must undergo rigorous PhD course work. Each department may fix its own minimum number of credits; however it should not be less than 16 credits. This minimum number of credits has to be earned within the first year.

Name of the Department/Centre	Minimum no. of credits required
Department of Biological Sciences	16
Department of Chemical Sciences	16
Department of Earth Sciences	16
Department of Mathematics & Statistics	24
Department of Physical Sciences	24
CESSI	24
Department of Humanities and Social Sciences	16
Department of Computational and Data Sciences	16

The coursework should include one course on **Research Methodology (of 4 credits)**. For the successful completion of the PhD course work, a student must get grade ‘C’ or above in each of the courses taken. In case a student is unable to secure grade ‘C’ in a course, s/he will be allowed to sit for a supplementary examination for that course, or to choose another course. PhD students who fail in coursework will be allowed to complete the required number of credits within the first 3 semesters of joining, failing which the student will have to leave the Institute.

6.7 Review of Progress

A 3-Member Research Progress Committee (RPC) will be constituted for all research scholars. The committee will comprise the Supervisor, and two other faculty members. Students will have to submit a Progress Report and will have to present a talk in front of the RPC once a year.

Every PhD student is required to prepare and submit an Annual Progress Report (APR) to the RPC. The failure to submit the APR on time will lead to the discontinuation of fellowship.

6.8 Comprehensive Examination

A comprehensive examination is a means to evaluate a student’s comprehensive understanding of his/her discipline, ability to pose scientific questions and grasp of the methodology of doing research. It should normally be conducted within one month from the completion of coursework. If a student fails, he/she will be given a second chance within three months of the first attempt. If fails again, he/she may be asked to leave the programme.

6.9 Fellowship and Tenure

For Institute-funded PhD students the fellowship amount will be as per MoE norms. The fellowship tenure of Institute-funded fellows will be **five years**. Contingency fund will not be available for students funded by IISER Kolkata. A student should normally spend two years at the JRF level and will be upgraded to SRF level subject to fulfilment of certain criteria and an upgradation interview.

6.10 PhD Thesis Submission

Before submission

All students will have to carry out their major research in the Institute for at least a period of two years and six months from the date of PhD registration before the submission of the thesis. When the supervisor feels that the thesis is ready for submission, he/she will convene a meeting of the RPC. If the RPC is convinced, it will recommend conduction of the pre-submission open seminar. Upon satisfactory performance, the PGAC will recommend submission of PhD thesis within three months. Every research fellow should have a paper published/accepted for publication in a peer-reviewed journal before submission of the thesis. The thesis must be passed through plagiarism check software.

Thesis submission for evaluation

The thesis will be submitted online through WeLearn. The panel of reviewers should have a minimum of 4 names at the level of Professor or Associate Professor. It is mandatory that the supervisor takes prior consent from the reviewer before empanelling him/her. Research collaborators of the student or the supervisor should not be suggested as examiner of the thesis.

6.11 Evaluation of the PhD Thesis

The thesis will be evaluated by at least three independent reviewers including the supervisor. The reviewers will be requested to submit their evaluation report within 6 weeks. The reviewer has to select one of the following recommendations:

- The thesis is recommended for the award of the degree without any correction.
- The thesis is recommended... provided the following points... are clarified during viva-voce.
- The thesis is recommended... with minor revision.
- Substantial revisions involving rewriting of one or more chapters are necessary... without, however, doing any further research work.
- The thesis is not acceptable in the present form and needs to be rewritten... warrant the student being given an opportunity for further research work.
- The thesis is not recommended.

Depending on the reports, the DoAA/ADoAA will decide whether the thesis can be accepted for viva voce, be rejected or be referred to a new reviewer.

6.12 Final Viva Voce

The following table outlines the time schedule for conducting the viva-voce:

Sl. No.	Category of the Thesis	Time schedule for conducting viva-voce
1.	Accepted for Viva Voce	Within 3 months of sharing the reports
2.	Accepted for Viva Voce with minor Corrections	Within 6 months of sharing the reports
3.	To be resent to the concerned reviewer(s)	The Process is to be completed within one year
4.	Referred to another reviewer	The Process is to be completed within one year
5.	Rejected	Resubmission within 2 yrs.

The PGAC will organize the final viva voce in the form of an open seminar. The viva voce may be either through online or offline mode. The student should upload a soft copy of the corrected final thesis in Welearn after the viva-voce. The student should also submit one hardbound copy of the final thesis to the supervisor and one to the Institute Library.

6.13 Award of PhD Degree

On receipt of the approval of the Senate, the PhD degree may be conferred in the next convocation. Upon request, a provisional certificate may be issued by the DoAA/ADoAA based on the final report of the viva voce, provided the student has obtained the 'No Dues' clearance.

6.14 Leave Rules

- **Ordinary Leave:** A PhD student is eligible for 30 days leave with fellowship for each completed year. This includes medical leave.
- **Academic Leave:** PhD students may be allowed to attend Seminars / Conferences / Workshops / Training etc.
- **Maternity/Paternity Leave:** Women students are entitled to full fellowship up to 180 days for maternity. Male students are entitled to 15 days of paternity leave.

6.15 Exit from PhD Programme

To facilitate a switch-over option for students who are unable to continue, an early exit from the Programme with an **MS by Research** degree is possible.

- **Eligibility:** Only students who have passed the comprehensive (and therefore, coursework too) can avail this exit. A minimum of 2 years should have been spent after joining PhD.

6.16 Termination of Studentship

The PhD studentship is liable to be terminated for reasons including giving false information, failure to complete course work, consistent lack of progress, academic misconduct, or violation of Institute rules.

6.17 Format of Final Thesis

- **Page Size:** A4/Back to Back.
- **Binding:** Spiral binding at the time of submission, hard bound after the time of defence.
- **Cover Colour:** Black.
- **Font type and Size:** Times New Roman, 12 Pts. or any other equivalent font size.
- **Line Spacing:** 1.5.

The front page should have standard information like the thesis title, student's name, supervisor's name, department, institute logo, and month/year. The thesis must include a declaration by the student and a certificate from the supervisor.

Template of Declaration by the student

Declaration by the student

Date:

I, Mr./Ms. _____ Registration No. _____ dated _____ a student of the Department of _____ of the Integrated PhD Programme/ PhD Programme of IISER Kolkata, hereby declare that this thesis is my own work and, to the best of my knowledge, it neither contains materials previously published or written by any other person, nor has it been submitted for any degree/diploma or any other academic award anywhere before. I have used the originality checking service to prevent inappropriate copying.

I also declare that all copyrighted material incorporated into this thesis is in compliance with the Indian Copyright Act, 1957 (amended in 2012) and that I have received written permission from the copyright owners for my use of their work. I hereby grant permission to IISER Kolkata to store the thesis in a database which can be accessed by others.

Signature

Name

Department of _____

Indian Institute of Science Education and Research Kolkata

Mohanpur 741246, West Bengal, India

Template of Certificate from the Supervisor

Certificate from the Supervisor

Date:

This is to certify that the thesis titled _____ submitted by
Mr./Ms. _____ Registration No. _____
dated _____ a student of the Department of _____
of the Integrated PhD Programme/ PhD Programme of IISER Kolkata, is based upon
his/her own research work under my supervision. I also certify, to the best of my knowl-
edge, that neither the thesis nor any part of it has been submitted for any degree/diploma
or any other academic award anywhere before. In my opinion, the thesis fulfils the
requirement for the award of the degree of Doctor of Philosophy.

Signature

Name

Professor/Associate Professor/Assistant Professor

Department of _____

Indian Institute of Science Education and Research Kolkata

Mohanpur 741246, West Bengal, India