



INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE, KOLKATA
*(Deemed to be University under de novo category under sec. 3 of the
University Grants Commission Act, 1956,
vide Notification No. F.9-7/2017-U.3(A) of the Central Government)*

REGULATIONS
for
Integrated Bachelor's-Master's Program in Science

General: The regulations herein shall apply to the 5-year Integrated Bachelor's-Master's Program in Science at the Indian Association for the Cultivation of Science (IACS). These regulations have come into effect from the Academic Year 2018-19. The Academic Council makes this Regulation in exercise of the power conferred upon it by the Governing Council of IACS.

Definitions of Terms used:

- *Institute* means Indian Association for the Cultivation of Science (IACS).
- *Academic Council* means the Academic Council of IACS.
- *Program* means the 5-year Integrated Bachelor's-Master's Program in Science of IACS.
- *Academic Year:* Two consecutive (one odd + one even) semesters constitute one academic year. The odd (autumn) semester is normally scheduled from August to December and even (spring) semester from January to May. There will be a winter break for 20 days between odd and even semester and a summer break between May 15 and July 31. Under exceptional situation, the duration of a semester may vary. The Academic Office shall prepare the academic calendar in consultation with the Dean (Academic) and Academic Coordinator.
- *Courses* indicate the subjects prescribed in each semester of the program.
- *Course Instructor* is a Faculty Member of IACS or any person engaged by IACS following the UGC guideline for teaching a Course.
- *CBCS* means Choice Based Credit System.
- *L and T* mean contact hours for lectures and tutorial per week, respectively. "*P*" means contact hours for practical/laboratory per week.
- *Credit* of a course is determined based on quantum of contents (syllabus) prescribed for a course and the number of hours of instruction required per week decide on the Credit of a course.

- *Degree* means dual degree in integrated Bachelor of Science (B.Sc.) and Master of Science (M.Sc.). (*vide infra, section 2.12*). The degree name shall be: Bachelor/Master of Science in (*Subject Major*).

1. Admission:

1.1. The program shall be run by the UG Committee with administrative support of Academic Office. UG Committee shall have the following composition: 1. School Chairs, 2. Dean (Academic) 3. Dean (Student Affairs) and 4. Academic Coordinator (BS-MS). Dean (Academic) shall be the Chairman of the Committee and Academic Coordinator (BS-MS) will be the convener of the committee.

1.2. The UG (admission) committee comprising of Chair or one faculty member nominated by Chair of each school, Dean (Academic), Dean (Student Affairs), and Academic Coordinator (BS-MS) shall look after the admission process (setting minimum eligibility criteria for application in qualifying examination, deciding on the number of seats in each year, preparing admission notice/advertisement, determining shortlisting criteria, and conducting admission test, interview(s) etc). The Committee shall ensure compliance of the national reservation policy as per prevailing rules of the country.

1.3. Candidates who have passed the 10+2 level examination in science stream from a recognized School Board are eligible for admission to the program provided they have secured the minimum qualified marks/grade prescribed in the qualifying examination by the UG Committee.

1.4. Relaxation of minimum marks in qualifying examination and reservation of seats for SC/ST/OBC/PD/KM and EWS will be as per the rules of the Government of India that are in force from time to time.

1.5. Candidates meeting the minimum criteria will be screened through a written test/marks in 10+2 level in Chemistry, Mathematics, and Physics, Biology/Computer Science. Selection will be made based on performance in the written test and/or interviews(s) as decided by the admission committee.

1.6. In addition to satisfying the conditions given in the application form and other relevant information concerning the admissions, the selected candidates should also satisfy all the other admission requirements indicated in the offer of admission and then only they will be admitted to the program after payment of the prescribed fees. However, if at any time it is found that the requirements are not fulfilled by a candidate, her/his admission to the program will be cancelled.

1.7. The Academic Office shall enroll/admit the students selected for the Program. Each student admitted to the above program shall be assigned a 15-digit unique registration number following the format “YEAR OF ADMISSION-COURSE-NAME OF SCHOOL-CATEGORY OF STUDENTS-GENDER-A THREE DIGIT NUMBER”.

A. Courses will be coded as : UG - 01
 PG - 02
 PhD - 03

B.	School will be coded as	:	UG	-	00
			AIS	-	01
			SBS	-	02
			SCS	-	03
			SMS	-	04
			SMCS	-	05
			SPS	-	06
C.	Category will be coded as	:	UR	-	01
			SC	-	02
			ST	-	03
			OBC	-	04
D.	Gender will be coded as	:	Female	-	01
			Male	-	02
			Others	-	03

For example, an unreserved male student taken admission in this year in BS-MS course, will have Registration number as 2018 01 00 01 02 001.

1.8. The admitted candidates shall have to abide by all the applicable rules (including disciplinary) and regulations of IACS.

1.9. The eligible students may receive scholarships/stipend from 7th semester onward in accordance with the Regulations and upon fulfilling the necessary requirement (*vide infra, section 7.7*).

2. Structure of the Program

2.1. The duration of the course shall be three (6 semesters for Bachelor's) + two (4 Semester for Master's) academic years.

2.2. The first three semesters of the program shall comprise foundational courses in Physics, Chemistry, Mathematics, Computer Sciences, and Biological Sciences. From 4th semester onward students will focus on one of the above-mentioned subjects as major under the respective School. Major subject selection will be based on the choice of the students and number of available seats in each School. In the process, the performance of the students until their 3rd semester will be considered. The UG committee will make the final decision.

At the end of 6th semester, the students may be allowed to opt for the Master's studies in any of the six schools of IACS, which will be reflected in their M.Sc. degree certificates. The UG committee will make the final decision on the selection of school.

2.3. Each semester shall consist of 15 weeks of academic activity.

2.4. In each of the course, credits shall be assigned based on the number of lectures/ tutorials/ laboratory/project work and other course-related activity required to complete the course contents. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work per week. The lecture sessions and tutorials shall not be substituted with any other activities like seminars, group discussions etc.

2.5. There shall be following categories of courses/papers in the program:

(a) **Core Courses:** Compulsory components of an Academic Program. These Courses are to be compulsorily studied as a core requirement for the program.

(b) **Elective Courses:** Elective courses shall be chosen by each student from a list of courses. These courses may be within the same discipline (Discipline Specific Elective (DSE)) as well as outside the main discipline of studies [Generic Elective (GE), or open elective]. The students shall be allowed to choose a particular subject area of interest. These courses shall be: (i) supportive to the discipline of study, (ii) providing an expanded scope, (iii) enabling an exposure to some other discipline/ domain, (iv) nurturing student proficiency/ skill. Elective Courses shall be of equal credits.

2.6. The curriculum, number and credits to be acquired for the courses will be designed by the UG Committee following the guideline laid by the UGC, and the Academic Council shall review those from time to time. Details of the courses offered including the course contents shall be made available to the students. **Each course / paper shall have a character code indicating the subject/School, year of study, the semester and the course no. The course code shall follow a uniform pattern: "Subject code-Year of study-Semester (1 for odd/2 for even)-Subject number". The subject codes shall be:**

Chemical Sciences (CHS), Physical Sciences (PHS), Biological Sciences (BIS), Material Sciences (MAS), Mathematical and Computational Sciences (MCS), and Applied & Interdisciplinary Sciences (AIS).

For example: a course of Chemical Sciences offered to first year first semester students, the course code may be: CHS-1101

If necessary, capital alphabets may be used at the end of four-digit codes to distinguish between similar type of courses or same course for students from different disciplines. A single core course may have a different code number for different schools.

2.7. The credit of each theory course, irrespective of core, GE or DSE, 4. A DSE course may also take the form of a Dissertation/ Project work/ Practical etc. Under no circumstances, a Core or DSE course from same School can be treated as a Generic Elective.

2.8. Additional Credits may be allowed under Mandatory Non-CGPA Credit Courses, as per following specifications:

(a) Compulsory Specified Courses shall will be of 2 / 4 credits each to be opted by the students of the Programs under Ability Enhancement Compulsory Courses (2 credit) and Skill Enhancement Courses (2/4 credit). Ability Enhancement Compulsory Courses (AECC): Communicative English, Scientific Writing & Ethics, and this course will be offered only in the Semester I. The other AECC course is on environmental science of credit 2, which will be offered only in Semester II.

Two Skill Enhancement Compulsory Courses (SECC) are to be taken in Semester III and IV.

Activities: These are part of Co/Extra-curricular Activities as defined by the Academic Council and must opt for a minimum of 2 Credits in entire duration of the program.

2.9. Pre-project lab rotation is compulsory in 7th semester. Dissertation project is allowed in the last three semesters (VIII, IX and X).

2.10. The syllabus and contents of each course as approved by the Board of Studies (BoS) shall be monitored/reviewed the schools. The UGC guidelines, issued from time to time, have to be followed to make or change the syllabus. If any amendment is proposed the same may be deliberated upon at the Academic Council for final decision.

2.11. The minimum number of credits to be acquired for successful completion of the Bachelors part of the integrated Program is 150. A minimum of 238 credits has to be earned for the Integrated Bachelor-Master degree in the Major Subject.

2.12. A candidate will be awarded degree upon completion of all other requirements of the integrated program.

2.13. **A Course Instructor** shall perform the following functions:

(i) Preparing and teaching a course alone or with other faculty members wherever necessary. Maximum two instructors may be allowed for a course.

(ii) Maintaining attendance and performance records of all the students registered for the Course(s) he/she offers.

(iii) Evaluating students' performance through continuous evaluation (internal evaluation).

(iv) Involving her/himself in preparation/moderation of question papers, evaluation, scrutiny and finalization of results of the course(s) etc.

(v) Every instructor shall have stipulated office hour to be displayed in front of her/his office.

2.14. **Student Advisory Committee (SAC):** UG Committee shall constitute a three-member Student Advisory Committee from amongst the faculty members. SAC shall perform the following functions:

i) Offering all possible student support services relevant to the program of study including redressal of the grievances of the students.

ii) Regular monitoring the performance of students.

iii) Counseling the students in choosing elective, optional and additional courses (if any).

2.15. Every student has to register for the courses s/he intends to undergo in a semester by applying in the prescribed form duly signed by the candidate and student advisor. For that purpose, a student may consult with SAC. The Academic Office shall enroll the student for the relevant course after duly forwarded by the SAC within the stipulated time notified by the Dean (Academic)/Academic Coordinator.

2.16. The medium of instruction and examination shall be English.

Course structure and contents of the Integrated Bachelor's-Master's Program (Please See Course Booklet/BoS approved courses of different Schools)

3. Attendance

- 3.1. The course instructor shall be responsible for maintaining a record of attendance of students who have registered for the course.
- 3.2. All course instructors shall intimate the Academic Coordinator at least fifteen calendar days before the last instruction day in a semester, the particulars of all students who have less than 85% attendance.
- 3.3. A student who has less than 85% attendance shall not be permitted to sit for the End-semester examination in the course in which the shortfall exists. Provided that it shall be open to the Competent Authority to grant exemption to a student who has attended a minimum of 75% classes but failed to obtain the prescribed 85% attendance for valid reasons on recommendation of Academic Coordinator.
- 3.4. The Academic Coordinator shall announce the names of all students who shall not be eligible to take the End-semester examinations in the various courses and send a copy of the same to the Dean (Academic). Registrations of such students for those courses shall be treated as cancelled and they shall have to repeat the course when it is offered next.

4. Examination

- 4.1. Examination and evaluation shall be done on a continuous basis. For the purpose of uniformity, particularly for interschool transfer of credits, there shall be a uniform procedure of examination to be adopted by all Schools. The Examination of all theory courses shall have three parts: (a) Internal Assessment (25% weightage), (b) Mid-Semester Examination (25% weightage) and (c) End-Semester Examination (50% weightage).
- 4.2. For internal assessment, course instructors may employ assessment tools such as, assignments, quiz etc. suitable to the courses. The students are to be informed in advance about the nature of assessment.
- 4.3. Mid-semester examination (2 h duration) will be conducted for each course, which shall carry 25% of the total weightage.
- 4.4. Evaluation of the laboratory courses will be based on continuous assessment as well as final examination and viva-voce of the students. The students will be required to give a seminar presentation on their dissertation project work done in a research lab. A panel of examiners shall evaluate the work performed in the project work presentation.
- 4.5. Ordinarily, a student cannot repeat an internal assessment. However, the Course instructor may arrange for internal assessment beyond the regular schedule under special circumstances as may be deemed appropriate by the Course instructor. However, the internal assessment must be completed before the end-semester examinations.
- 4.6. There shall be one End semester final examination (3 h duration) carrying 50% weightage in each course covering the entire syllabus of the course. The End semester examination is normally a written/ laboratory-based examination/Project Work/Dissertation.

- 4.7. The end-semester examination schedule shall be notified by the Academic Coordinator in consultation with the Dean (Academic). The date and schedule shall be notified at least fifteen days in advance.
- 4.8. Course Instructor(s) for each of the theory courses will be the paper-setter and examiner. Question papers have to be submitted in sealed envelope/soft copy to the Academic Coordinator. The envelopes containing sufficient number of question papers (depending upon the number of students in the course) shall be submitted to the Academic Coordinator within the stipulated date. In the process, confidentiality must be maintained. A course instructor is expected to be present in the hall during the examination of her/his course.
- 4.9. Normally, there will be no moderation of question papers. In case moderation is necessary for some reason, it may be done by a committee constituted by the Dean (Academic) in consultation with the Academic Coordinator.
- 4.10. At the end of a semester, each student shall fill-up a Course Evaluation Form for every course taught in that semester.

5. Evaluation

- 5.1. The Course instructor shall evaluate the answer scripts and submit the marks as well as letter grades to the result section within a maximum of two weeks from the date of examination.
- 5.2. Before submitting the results, the students shall be notified to check their evaluated answer script. Interested students may contact with the respective course instructor during a time window to be notified by the Academic Coordinator.
- 5.3. The result section shall finalize the results of each examination/semester for preparation of Grade sheet and declaration of results.
- 5.4. Project report/ Dissertation shall be evaluated jointly by the supervisor and examiners from within the school or from outside the school as decided by School Chair.
- 5.5. Before declaring the results of end semester examinations, the Academic Coordinator shall request a meeting of the Academic Council to scrutinize the results of both internal assessment and end-semester examinations. The Council may seek clarification or call for answer scripts if it feels necessary from the course Instructor(s) concerned in the matters of over marking or under marking during examination(s).
- 5.6. The Academic Council shall approve the results and recommend for declaration of results by the Dean (Academic) in consultation with the Academic Coordinator.

6. Grading:

- 6.1. The relative grading system shall be applied in evaluating performance of the students.

- 6.2. A candidate shall have to secure at least **P** grade to pass a course taking internal assessment, mid- and end -semester marks together.
- 6.3. The total marks obtained in the internal assessment, mid-semester and end-semester examinations of a semester shall be added for evaluating the grade of a course.
- 6.4. The following scale of grading system shall be applied to indicate the performances of students in terms of letter grade and grade points as given below:

Grade Point Definition:

Classification	Letter Grade	Grade Point	Remarks
Outstanding	O	10	CGPA multiplied by 10 will be the corresponding percentage of marks.
Excellent	A+	9	
Very Good	A	8	
Good	B+	7	
Above Average	B	6	
Average	C	5	
Pass	P	4	
Fail	F	0	
Absent/Incomplete	Ab	0	

Semester Grade Point Average (SGPA) will be computed for each Semester and will be calculated as follows:

$$SGPA = \frac{\sum_{i=1}^n c_i g_i}{\sum_{i=1}^n c_i}$$

Where 'n' is the number of courses in a semester, ' c_i ' is the number of credits for a particular subject, and ' g_i ' is the grade-points carried by the letter corresponding to the grade awarded to the student for the subject.

Beginning semester II, at the end of each semester S, a **Cumulative Grade Point Average (CGPA)** will be computed as follows:

$$CGPA = \frac{\sum_{i=1}^m c_i g_i}{\sum_{i=1}^m c_i}$$

Where 'm' is the total number of subjects from semester I onwards up to and including the semester S, ' c_i ' is the number of credits for a particular subject. ' g_i ' is the grade-point carried by the letter corresponding to the grade awarded to the student for the subject.

SGPA and CGPA will be rounded off to the second decimal place.

The SGPA and CGPA are calculated in consideration of only the credits cleared, i.e. Grade F credit is not included for the calculation.

SGPA would indicate the performance of the student in the semester to which it refers. CGPA would indicate the cumulative performance of the student from the semester I up to the end of the semester to which it refers.

7. Result

7.1. The Controller of Examination shall declare the results and issue Grade-cards with signatures of Registrar and Controller of Examination.

7.2. Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned until that semester.

7.3. A student shall have to study the academic program as per the scheme of the program.

7.4. The Academic Council of IACS will award the degree.

7.5. Degree Certificates will be issued by the Academic Council with Signature of the Director and the Chairman of the Governing Council.

7.6. Based on the results, rank certificates will be issued to the first rank holder(s) of each school. Silver Medals will be awarded to the first rank holder(s) of the university. M. L. Sircar Gold Medal(s) will be awarded to the student(s) securing a CGPA of 10.00.

7.7. For obtaining the degree, the following requirements have to be satisfied:

(i) To continue in the program after 3 years, a student should not have **F** grade (first attempt) in more than three courses or a CGPA less than 5.00 up to 6th semester.

(ii) A student with CGPA less than 5.00 having all courses up to 6th semesters cleared will be asked to leave the program with the B.Sc. degree in the major discipline. Such outgoing students will be allowed to clear the courses with **F** grade, if any, in the following two semesters to be conferred with the B.Sc. degree in the major discipline.

(iii) In order to qualify for the Integrated Bachelor-Master degree, a student should complete the stipulated credits (*vide supra section 2.12*) with at least a CGPA of 4.00.

7.8. A student may be awarded stipend from 7th semester onward only if s/he earns a minimum CGPA of 7.5. The stipend may be terminated unless a student satisfies the of minimum CGPA criteria of 7.5 at any point of time.

7.9. Transcript: IACS may issue consolidated Transcript on request to Controller of Examination/Academic Coordinator which shall contain Letter grades, grade points and SGPA and CCPA mentioning the Course Titles in details, medium of instruction and program duration.

7.10. A student who fails (**F** grade) in a course shall be provisionally promoted to the next semester with the failed course(s) as carry over course(s). Maximum three such carry over courses may be allowed in a semester. In that case, the semester grade card shall reflect the **F** grade until s/he clears the course.

7.11. If a student gets **F** in a particular course in a semester or does not appear (**Ab**) in one or more courses of any end semester examinations, s/he shall be deemed to have failed in that course only and shall be required to clear the course in a supplementary examination/make up examination to be held during the next summer break. Maximum two supplementary examinations shall be allowed to clear '**F**' in a subject. **Ab** may be considered as **F** grade without a medical or other valid reason.

7.12. A student is allowed to take the supplementary examination on maximum three courses in a semester.

7.13. In supplementary examination, students shall be graded on the basis of the marks obtained out of 100. The marks obtained in the mid-semester exam and internal assessment may not be considered while awarding the grade. Students will be given a grade one step lower than the grade given in normal semester examination. However, if one obtains a **P** grade, it will not be lowered to **F**. Make-up examinations will be conducted, either separately or along with the supplementary examinations, for students who could not appear (**Ab**) in the end-semester examination due to valid medical reasons. Their grades will not be downgraded.

8. Review and Scrutiny

8.1. There shall be re-evaluation (review) of the answer scripts of theoretical papers of end-semester examinations but not of internal assessment marks. However, for re-evaluation, the candidate has to apply to the Controller of Examination. No application for revaluation of practical papers shall be entertained. The examiner of a paper shall not be the reviewer of the same paper.

8.2. Scrutiny of the theoretical answer scripts shall be done by the instructors before submitting marks to the Examination and Results section.

8.3. The written answer scripts of each term end semester examination will be preserved in the Academic Office until review, if any, is completed. After that, the answer scripts shall be forwarded by the Academic office in confidence to the Academic Coordinator. Class test answer scripts or other records of Internal Assessment shall, however, be preserved in the Academic Office for three years from the date of commencement of the concerned Semester. After that period, the scripts will be disposed of as per rules of IACS.

9. Teaching Assistant (TA) Rule

For laboratory and theory (tutorials), Postdoc/RA/PhD students of IACS will support as Teaching Assistants (TA). Any theory course (4/3 credits) which has more than 15 registered students or more, a

maximum of 2 TAs may be allowed. Any other theory course for which the credit point is less than 3 or the number of registered students is less than 15, one TA may be allowed. For laboratory courses, the maximum number of allowed TAs will be half of the total credit points of the course. For example, if a laboratory course has total credit points of 6, maximum 3 TAs may be allowed.

10. Leave Rule

10.1 Students, receiving fellowship/stipend from IACS/other sources funded by public money are entitled to get leave with fellowship/stipend not exceeding 30 days for each completed year of tenure subject to approval by the competent authority (Chair of School up to 10 days, and Dean (Academic/Students Affairs) up to 30 days). The leave will be treated as part of the student's tenure. These 30 days include semester break /winter break and preparatory breaks except national/public holidays as declared by IACS.

10.2. Leave beyond 30 days requires approval of the Director.

10.3 Sanction of leave without stipend may be considered by the Director, IACS under special circumstances. In case a student proceeds on leave before termination of stipend, s/he must join back before the expiry of tenure, failing which the tenure will be deemed to have terminated with effect from the date s/he proceeded on leave. The fact of joining back from leave should be communicated to Dean (Academic/Student Affairs) immediately.

10.4 The Supervisor/School Chair /Dean (Academic/Students Affairs) may grant leave to a student in her/his charge with the concurrence of the Dean (Academic/Students Affairs) if the leave is due, as prescribed in the above paragraph. If leave is not due, such cases will be decided by the Dean (Academic/ Students Affairs)/Director, IACS only as per rule.

10.5 All foreign travel leave require approval of the Director. A student should not be allowed to proceed on leave to visit abroad for attending conferences/seminars/carry out experiment etc. without prior approval. The entire duration of such foreign visit if funded in the form of fellowship by any national/international agency would be treated as leave without stipend. TA/DAs provided by external funding agencies will not be considered as fellowship. Foreign travel without approval may result in termination of stipend. Leave without pay will be considered if the duration of visit is more than 1 month/year.

10.6 There is no summer break for Master's students/students receiving stipend. They must be in campus during summer break to carry out summer project/research project. However, they will be allowed Academic Leave for any academic work (summer project/experiment related to her/his project) to be carried out outside the Institute with prior concurrence/approval of the competent authority, i.e. Supervisor, School Chair, Dean (Academic/Students Affairs), Director, as the case may be. A student will be entitled for Academic Leave, provided s/he does not get any regular financial support from other sources apart from some subsistence allowance.

10.7 Travel leave will not be allowed during normal academic session (during the semester).

10.8 For leave on medical ground, a certificate from the attending doctor (approved list of IACS) may

have to be submitted along with the leave application form.

10.9 The students have to abide by the attendance rule as per regulations of the program.

11. Infrastructure: All classrooms, teaching labs and other infrastructural facilities assigned by the IACS administration for the teaching program shall be under the overall control of the Dean (Academic) and Academic Coordinators. To accommodate all the theory courses in the existing classrooms, class routine shall be prepared centrally by the Academic Coordinator in consultation with Deans (Academic) and Chairs of all the Schools.

12. Ethical Guidelines

12.1. Officials engaged in the Central Academic Administration in any capacity or responsibility must officially sign a pledge for propriety and confidentiality with the Dean (Academic) and the Academic Coordinator.

12.2. It must be ensured that IACS shall maintain fundamental code of professional ethics in implementing these Regulations. For any matter not covered under these Regulations for the Programs, the existing Rules of IACS shall be applicable. Notwithstanding anything contained in the above regulations, the Chairman, Academic Council shall have the power to issue directions or orders to remove any difficulty.

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