

Perspective / Strategic Plan and Deployment

1. Teaching Learning Process

The college inculcates in its students the discipline in maintaining the schedule of the class.

The teachers strictly adhere to the academic and evaluation plan as notified.

Academic Plan:

The principal notifies the academic calendar at the beginning of the year.

The academic calendar is same for 2nd to 3rd year and 2nd year M.Sc. (continuing batch).

However, it differs to small extent for 1st year B.Sc. and M.Sc. students, as their admissions are regulated by central authorities.

The academic calendar is strictly adhered to by the teachers.

The calendar includes the schedule for commencement of classes, internal tests, practical exams and end semester examinations.

Curricular Development

It is generally held once in a year.

For a new faculty, faculty development program is held for one day.

Teaching and Evaluation plan:

At the beginning of each semester, lecture plans are prepared by faculty members and strictly followed through the semester.

The students are informed of the academic plan and examinations through notices.

The syllabuses for different courses are posted in the website for their ready reference.

Examination schedules are announced by the controller of examinations of university.

To maintain transparency, answer scripts of internal tests are shown to the students.

The final marks of the internal tests are then sent to the controller of examinations through the head of the departments.

The concerned teacher prepares the lecture plan.

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On the first day of the class, the teacher explains the course structure and scope of the topics to be covered.

The UG students are informed about the syllabus by our printed syllabus books and PG students through college website.

For laboratory courses the students are given a detailed schedule of the experiments to be performed and outlines of the methods to be followed.

The Head of the department reviews syllabus coverage in Departmental Academic Committee meetings.

The plan ensures that the teacher can reschedule a certain missed class.

Any student who has missed some class, understands what he has to make up.

The teaching plan ensures control on the total syllabus and its timely completion.

Methods of learning experiences provided to students

In most theoretical courses, the lecture method is followed.

Lectures are explained on black boards and white boards. Some classes have OHP (Over Head Projectors) / LCD projectors, which forms another convenient medium to impart instructions.

Students are encouraged to participate in seminars / conferences and contribute through poster and paper presentations.

Seminars/Workshops on recent developments in technology & management are frequently organized with speakers from academia.

Participatory learning activities

* Regular student seminar presentations

* Presentation of technical papers in conferences and seminars of repute.

* Research projects in collaboration with other institutes.

* Internships in industries and training institutes during summer and winter recess.

Latest technologies and facilities used by the faculty for effective teaching

Apart from regular board work in classes, faculty members also adopt various innovative methods for effective teaching in the form of power point presentations, video lectures etc.

Faculty members also refer to open course wares made available by reputed international and national institutes.

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The library has an online catalogue which helps students to browse books of their interest.

Students can access e-journals and e-books made available by the digital library facility.

Every department is equipped with laptops and projectors to help students gain access to innovative learning.

Student projects: a mandatory part of the learning program

In our institute we consider project work is a very important part of students' learning program, both at the UG and PG level. Therefore student project work is covering last semester (6th semester for UG students and 4th semester for PG students) have been made mandatory in the course curriculum.

Individual projects are undertaken by the students of small groups under the guidance of faculty members. The projects undertaken are a judicious mix of theoretical as well as practical work and the quality and grade of the project of the work is adjudicated by an internal faculty team along with an expert external member. Quite a few outputs of these project works are published in national and international journals and conferences. A number of practical projects, as working models are preserved in the respective labs.

Quite a large number of these project works are carried out in collaboration with senior faculty members working in similar domains of research of other institutes.

The project is a part of the curriculum and this mandatory subject is in the final year for all streams.

Facilities available: efforts are made to facilitate the faculty in learning / handling computer-aided teaching/ learning materials

Faculty members regularly refer to learning materials made available by institutions of national and international repute.

*Digital library facilities are utilized.

*Access to e-journals and e-books complements regular teaching.

*Students have access to internet facilities through wi-fi and also conventional methods.

*Computer labs have required software for applications and instructional facilities.

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Mechanism for evaluation of teachers by the students / alumni achieving qualitative improvement in the teaching-learning process

- *Mechanism of evaluation of teacher is done by obtaining feedback from students
- *Feedback is analyzed by Departmental HOD and by the Principal
- * Necessary counseling is done to faculty by the HOD of respective departments.

Library resources used to augment the teaching-learning process

Library supports the teaching –learning process in the following ways

- *Books are procured as per the requirements of the students and teachers.
- *Books are catalogued and processed
- * Online journals and online databases can be availed in the digital library
- *Reprographic (Xerox) and scanning services and printout services from online resources are available.
- *After the admission of new batch of students, they are made acquainted with the library systems

Continuous monitoring and evaluation of teaching, teaching methods used, classroom environments and the effect on student performance

The college has the following mechanisms to monitor teaching and learning process:

- *Student feedback system.
- *Regular department academic committee meetings to discuss on syllabus coverage, problems in classroom management and other aspects involved in teaching
- *Self-appraisal by teachers.

Teaching-learning methods

- *Teacher prepares the lesson plan and accordingly the lectures will be designed after adhering to the syllabus.
- *Teacher explains the utility and application of the subject taught in the due course of career of the students.
- *Reference books, text books and their usefulness are covered.
- *Classroom teaching with chalks and conventional methods are followed on different topics taught.
- *LCD/OH projectors are used during discussion at the time of seminars and classes, where the students and teachers are discussing on advanced topics.

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*Exposure to external sources of information like e-journals/journals, open sources are advised by the teachers to the students during the execution of the projects.

Examination reforms

*** For Theory Papers – Internal evaluation marks 30% comprising of**

- * Attendance 5%
- * Home assignment and Viva Voce 10%
- * Two Class Tests 15%

End Semester Examination – 70% marks

- * For Practical Examinations
- * Sessional marks – 40%
- * End Semester Examination – 60%
- * Special Supplementary Examination for 1st and 2nd semester courses are held within 30 days of publication of 2nd semester results. Similarly Special Supplementary Examination for 5th & 6th semester courses will be held within 30 days of publication of 6th semester result.

Content / knowledge management

- * Conducting workshops/seminars
- * Conducting Guest lectures

Teaching innovations made during the last five years

- * The concepts of outcome based education have been brought in all departments. Faculty's are aware of the Programme Educational Objectives (PEOs) and Programme Outcomes (POs) in order to ensure the course outcomes served.
- * Course files are maintained with the lesson plans.
- * Assessments are evaluated through weightage given to indirect and direct assessment tools.
- * Curriculum revision has been done after every three years through workshop chaired by HOD followed by BOS.

Institute Quality Assurance Cell has been established to monitor and report on various aspects affecting student performance.

2. Research, Innovations and Extension

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Promotion of Research

The institute plays a very proactive role in promoting this culture. The faculty is encouraged to pursue and complete doctoral and post-doctoral work and published in peer review journals.

Resource Mobilization for Research

A Central Research Facility with advanced well-equipped Laboratory has been set up in the College to assist research activities. There is budgetary allocation for this.

Innovation Ecosystem

The Institution has created an ecosystem for innovation including initiatives for creation and transfer of knowledge. The institution conducts workshop/seminars as Innovative practices.

Faculties are granted special leave for attending conferences to present papers. The College management provides financial assistance in the form of TA, Registration fees etc.

The library is equipped with a large number of Text Books and Research Journals online (digital library facilities available) both for the faculty and students. Both PG and UG students participate in research programmes organized by various Universities, Research Institutes and Organizations.

The institution encourages research projects and publications by the faculty. Since June 2003, 64 research papers have been authored / co-authored by the faculties, published in different national and international journals.

The faculty authored / co-authored number of books and contributed 6 chapters.

Faculty members are acting as guides and co-guides of research scholars pursuing their PhD programmes.

Students actively participate in research, seminars, paper presentations and Publications.

Consultancy

Director of the institute is engaged in Private Organization (Suraksha Diagnostics) for Consultancy and human blood samples are assayed in the Genetics laboratory, which are also used for research purposes.

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Extension Activities & Institutional Social Responsibility

Community and extension service is integrated with the curriculum as extended opportunities to help, serve and learn.

Our Institute (IGE) has made MOU with “THALASSAEMIA FOUNDATION’ to involve our students in community service like prevention of Thalassaemia disorders in our Community.

One of our faculties Dr. Sudipa Chakravarty is the coordinator of the same project and run Free Counseling Clinic for affected patients at our Institute.

Collaborations

Collaborative research has been taken up by the faculty members with some Universities and Research Institutes

The expertise and specialized knowledge base of faculty helps in consultancy service and collaborative research activities with following Institutions:

- **Calcutta Tissue Culture PVT.LTD (Estd. in 1995):** Private organization to promote tissue culture products and provide R&D facilities to various Institution: Managing Director; Dr. Amit Chakravarty.
- **Genetic Center :** IGE -Badu : Consultant Medical and Molecular Genetic; Clinics for Genetic Testing/Screening/Counseling; Consultants : Dr. Amit Chakravarty / Dr. Sudipa Chakravarty.
- **Saha Institue of Nuclear Physics (SINP) :** Salt Lake :Kolkata (Govt.Org) : Collaborator – Prof (Dr) Abhijit Chakravarty : Project on Genotype – Phenotype correlation of Beta-Thalassaemia Disorders in West Bengal Population (Since June;2003)
- **Anthropological Survey of India :** Kolkata (Govt Org) : Collaborator – Dr B. N .Sarkar: Genotype – Phenotype correlation of Beta-Thalassaemia Disorders in West Bengal Population (Since June;2003)
- **Dr. B. C. Roy Institute of Post Graduate Institute of Pediatric Science; Kolkata :**Collaborator – Dr. T. K. Saha ; Neonatal and Pediatric

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Intensive care ; Project on Detection of Chromosome Instability in Sick Neonate in West Bengal population (Since 2013 :On Going Project)

- **CSIR-Institute of Genomics and Integrative Biology : New Delhi :** Collaborator – Dr. Ritusree Kukreti: Project on Genotype – Phenotype correlation of Beta-Thalassaemia Disorders in West Bengal Population (started in June;2006)

3. Community Engagement

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Every year on World Thalassaemia Day (8th May), we organize camps in our nearest locality (District 24 Parganas – both North and South) for searching carriers or affected patients in collaboration with Thalassaemia Foundation.

4. Human resource planning and development

Faculty development programmes are organized by inviting Experts from related fields. In-house faculties who have achieved some experience also share their experiences with junior faculties.