Academics
at
Indian Institute of Technology, Kanpur

Office of Dean of Academic Affairs

Origin of IITs

- Sarkar Committee Report (1948);

- Sarkar Committee (under Chairmanship of Mr. Nalini Ranjan Sarkar, Finance Minister of West Bengal) was set up to suggest models for setting up of Higher Technical Institutions in country to cater to post war industrial development;

- The first four IITs (established as societies):

    - IIT Kharagpur (1950; USA, UNESCO, UK, USSR);

    - IIT Bombay (1958; UNESCO, USSR);

    - IIT Madras (1959; Germany);

    - IIT Kanpur (1959; USA)

IIT Kanpur
and
Kanpur Indo-American Program (KIAP)

- In the formative years (1962-1972), IIT Kanpur was assisted by a consortium of nine leading US universities under "Kanpur Indo-American Program" (KIAP):

- California Institute of Technology (Caltech);

- Carnegie Institute of Technology (now called Carnegie Mellon University (CMU));

- Case Institute of Technology (now called Case Western Reserve University);

- Massachusetts Institute of Technology (MIT);

- Ohio State University;

- Princeton University;

- Purdue University;

- University of California at Berkley;

- University of Michigan

Governing Structure of IITK

- Declared as an institute of national importance through an Act of parliament, called "The Institutes of Technology Act 1961";

- Name of the Institute: **Indian Institute of Technology, Kanpur;**

- The President of India is the **Visitor** of the Institute (as per English law, "Visitor" is an overseer of an autonomous institution who can intervene in internal affairs of the institution);

Governing Structure of IITK

- Institute is governed through provisions of Act and Statutes;

- Although all IITs have the common act they have different Statutes.

- **Main Authorities of Institute**:

   Board of Governors: primarily deals with administrative policy matters;

   Members of BoG:

   - Chairman to be appointed by the Visitor;

   - Director;

   - one technologist or industrialist of repute nominated by state government;

   - four nominees of council having special knowledge or practical experience in respect of education, engineering and science;

   - two professors of the institute nominated by the Senate.

   Senate: mainly deals with academic matters (discussed later in detail);

Governing Structure of IITK

- **The Council:**

  - Coordinates activities of various IITs;

  - Minister HRD is the Chairman of Council;

  - <u>**Other members**</u>:

    - ✓ Chairman and Director of each IIT, Chairman UGC, DG CSIR;

    - ✓ Chairman and Director of IISc.;

    - ✓ Nominee of MHRD, FM, and one other ministry;

    - ✓ Nominee of AICTE;

    - ✓ 3-5 Visitor's nominee having special knowledge or practical experience in respect of education, engineering and science;

    - ✓ Three Members of Parliament; an officer of MHRD as secretary).

Governing Structure of IITK

- **Director:** Principal Academic and Executive Officer. He is also the Chairman of Senate and is appointed by Council with prior approval of the Visitor;

- **Founding Director and Chairman:** Prof. Purushottam Kashinath Kelkar was the first director of IITK, and Mr. Sampurna Nand (second chief minister of UP) was the first Chairman of the Board of Governors of IITK;

- **Ordinances** contain general information on various academic policies as decided by the Senate. Ordinances are made by the Senate and approved by BoG;

- **UG Manual:** Provides detailed procedures and requirements pertaining to UG programs;

- **PG Manual**: Provides detailed procedures and requirements pertaining to UG programs;

Senate

- The highest body to take all academic decisions;

  - **Members of the Senate:**

    - Director (ex officio Chairman);

    - Registrar is the (non-member) Secretary;

    - Deputy Director;

    - all Professors of the Institute;

    - HoDs other than professors;

    - Librarian;

    - One Warden by rotation;

    - Up to six other members of the faculty for their special knowledge appointed by Chairman, BoG in consultation with Director;

    - Three persons (from among educationists of repute, one each from the fields of Science, Engineering and Humanities; not institute faculty) appointed by Chairman, BoG;

Senate

- The Senate of the Institute has an overall control on all academic matters, is responsible for the maintenance of standards of instruction, education and examinations and has all academic powers as described in the Statutes;

- Should meet as often as necessary but not less than four times during a calendar year. Generally Meets about 10 times in a year;

- Works primarily through its standing committees.

Standing Committees of Senate

- Senate Under-Graduate Committee (SUGC);

- Senate Post-Graduate Committee (SPGC);

- Senate Scholarships and Prizes Committee (SSPC);

- Senate Students Affairs Committee (SSAC);

- Senate Library Committee (SLC);

- Senate Education Policy Committee (SEPC);

- Senate Nominations Committee;

- Senate Elections Committee;

- Senate Rules Committee;

- Senate Honorary Degree Committee

- Senate Curriculum Development and Monitoring Committee

Senate Undergraduate Committee (SUGC)

- Responsible for general policy determination, coordination and review in matters concerning undergraduate programs/students.

    – Approval of new courses;

    – Desirable modifications of courses already approved;

    – Credit valuation of courses;

    – Formal approval of admission of first year students and students in advanced standing;

    – Recommending to Senate for grant of degrees to students;

    – Evaluation of academic performance (placing students on Warning and Academic Probation; termination of programs);

    – Leave of absence

SUGC

- Semester drops;

- Late registration;

- De-registration;

- Waiving pre-requisites;

- Branch change;

- Changes in templates of various departments;

- Manages minor, double major, dual-degree programs;

- Any matter referred to it by the Senate

- Assisted by DUGCs.

SUGC

- M.Sc. (2 year) and all dual-degree programs where one degree is UG (including master's part of M.Sc.-Ph.D. dual degree) are managed by SUGC.

- **Members**:

  - One representative from each of the departments and IDPs (generally DUGC/PUGC Conveners)

  - 4 undergraduate students (nominated by Students' Senate)

  - Past Chairman

  - One additional Senate nominee.

- Meets about 12 times in a year.

- Chairperson, SUGC takes decisions on behalf of SUGC.

- Has two subcommittees CCC (Core Curriculum Committee) and APEC (Academic Performance Evaluation Committee).

Senate Postgraduate Committee (SPGC)

- Responsible for general policy determination, coordination and review in matters concerning postgraduate programs/students.

  - Approval of new courses;

  - Desirable modifications of courses already approved;

  - Credit valuation of courses;

  - Formal approval of admission of postgraduate students and their appointment as research scholars and research fellows;

  - Admission of qualified students to candidacy for degrees;

  - Rules governing the form of presentation and disposal of thesis;

  - Comprehensive examinations, State of art seminars;

  - Recommending grant of degrees;

SPGC

- Evaluation of academic performance (placing students on Warning and Academic Probation; termination of programs);

- Leave of absence;

- Semester drop;

- Late registration;

- De-registration;

- Extensions beyond the maximum duration of programs;

- Matters related to changes introduced by APRC

SPGC

- SPGC manages Ph.D. (including Ph.D. part of M.Sc.-Ph.D. dual degree), M.Tech (except dual-degree), MS by Research,   MBA, M.Des, DIIT (now defunct).

- **Members**:

  - One representative from each of the departments and IDPs (generally DPGC/PPGC Conveners of all departments/IDPs)

  - 4 Student members (nominated by Students' Senate)

  - Past Chairman

  - One additional Senate nominee

- Meets about 12 times in a year

- Chairperson, SPGC takes decisions on behalf of SPGC.

Dean of Academic Affairs (DoAA)

- **Takes no academic decisions;**

- Provides administrative support to SUGC and SPGC;

- Can only implement decisions where there is no discretion;

- Office handles following activities:

  - Pre-registration;

  - Registration;

  - Add-drop;

  - De-registration;

  - Scheduling of core courses and creating slots for department courses;

  - Assignment of class rooms to courses;

  - Scheduling and conduct of exams;

  - Receiving all grades;

  - Managing student records

DoAA

- – Receive applications for branch change, double major, dual-degrees, etc.;

- – Manage student reaction surveys (course feedback);

- – Extension of financial support to PhD students;

- – Travel support to PG students for conferences in India;

- – Manages PhD thesis evaluation
  - Sends thesis to examiners, sends reminders, forward reports to SPGC, etc.

DoAA

- Infrastructure management – LHC, Audio-visual, etc.;

- Convocation;

- Verify all graduation requirements;

- Verify all admission requirements;

- Post office for all academic communications

Academic Programs

- B.Tech (AE, BSBE, ChE, CE, CSE, EE, MSE, ME) - Admission through Joint Entrance Examination (Advanced) (JEE (Advanced));

- BS (Chemistry, Economics, Mathematics & Scientific Computing, Physics, Earth Sciences) - Admission through Joint Entrance Examination (Advanced) (JEE (Advanced)) ;

- M.Sc. (Two Year): Chemistry, Mathematics, Physics, Statistics - Admission through Joint Admission Test to M.Sc. (JAM);

- M.Sc.-Ph.D (Dual Degree): Physics - Admission through JAM;

- Various dual degree programs (BS-MS, BT-MT, BS-MT, BT-MS, BS-MBA, BT-MBA, BS-Mdes, BT-MDes etc.) double major programs and minor programs;

Academic Programs

- MS by Research (AE, ChE, CE, CSE, EE, ME, PSE, EEM (stopped));

- M.Tech (AE, BSBE, ChE, CE, CSE, EE, MSE, ME, ES, EEM, MSP, NET, PSE);

- M.Des;

- MBA;

- Ph.D. (AE, BSBE, ChE, CE, CSE, EE, MSE, ME, ES, EEM, MSP, NET, PSE, Mathematics, Physics, Chemistry, Statistics, HSS (Economics, English, Philosophy, Psychology, Sociology, Fine Arts))

Conduct of Courses

- Each course has to be approved by SUGC/SPGC before it can be offered;

- Courses not offered for 3 years are deleted from the list of courses (???);

- Teaching load is assigned by the concerned head of the department;

- Teaching Load: Three to Five Hours per week

- Teaching is taken very seriously at IITK;

- Try not to miss any lectures due to meetings, travel etc. If possible request one of the colleague to replace you for the lecture. Any missed class is to be compensated by a make-up class arranged in consultation with students. However rescheduling of lectures should be done sparingly.

- Extra class to hold a quiz or a laboratory test may be done in consultation with students.

- No make-up/extra class/examination should be scheduled on gazetted holidays.

- LHC will not be available for extra classes on Sundays and gazetted holidays.

Conduct of Courses

- It is important and useful to announce all course related policies in the first lecture of the course:

  - Attendance Policy;
  - Grade Evaluation Policy (at least general guidelines);
  - Text books and other reference material;
  - The structure of the course, purpose of the course and its outcomes, etc.

- It is useful to use some Learning Management System (such as BRIHASPATI);

- Make sure that continuous evaluation (Quizzes, Assignments, etc.) is an important aspect of the course. Apart from mandatory Mid-Semester and End-Semester examinations, at least two quizzes are desirable in every UG course.

- The core course instructors must hold at least one quiz before the mid-semester examination and at least one quiz between mid-semester and end-semester examination.

- Faculty and student tutors in core courses are expected to attend lectures of the course.

Conduct of Courses

- All feedbacks to the student should be quick;

- Mid-semester examination copies should be shown as early as possible but not later than fourteen days after the last date of Mid-Semester Examination;

- All marks have to be told to respective students in the last week of classes;

- End-semester examination copies to be shown before grades are submitted

Conduct of Courses

- The Instructor-in-Charge of a course may debar a student from the examination in which s/he is detected to be using unfair means. The Instructor/Tutor may take appropriate action against a student who misbehaves in his/her class. In all such cases, the Instructor/Tutor shall inform the DoAA office of all concerned information for record.

Grading

- A course can be either pass-fail or a grade with numerical value;

- Grades with numerical values are: A*:10 (Outstanding), A:10, B:8, C:6, D:4, E:2, F:0;

- Pass fail grades are: S (satisfactory or pass), X (fail)

  (students are allowed to take a few courses on pass-fail basis).

- SPI: Weighted average of all numerical grades in a semester;

- CPI: Weighted average of all numerical grades till now

Grading

- Other grades: I (incomplete), W (waiver);

- Grade change requests are strongly discouraged;

- Grading is completely left to the instructor – no grade moderation, etc.;

- Being too liberal or too tough is undesirable but accepted

  – However, giving a higher grade for lower marks is not acceptable

Academic Responsibilities

- **New Course:** A new course may be floated by a faculty member by submitting the course content and other details in the appropriate format (available from the DoAA website) to the DUGC/DPGC. The DUGC/DPGC will circulate the course details among the entire Institute faculty for their feedback. After a two week's period, the instructor will suitably modify the course proposal based on the feedback, and the DUGC/DPGC will then forward it to the SUGC/SPGC for approval;

- **Pre-Registration:** During the online pre-registration period it is desirable to clear the requests for courses from students as soon as possible. If for some reasons you are not available during online pre-registration period you may request one of your colleagues to take care of pre-registration of your course (OARS has a provision of transfer of responsibilities). During manual registration you may again request one of your colleague to take care of registration of your course and intimate the students (by pasting a notice on the door of your office and other notice boards in the department) and the HoD;

- **Class Schedule:** The classes for a course must be held in the time slot given in the time table. In exceptional situation another empty slot may be used for regular classes if it suits all the registered students, and it is between 8:00AM and 6:30PM;

Academic Responsibilities

- **Course Outline:** At the start of a course the instructor must provide an outline of the course which describes the weightages of assignments, examinations, quizzes, laboratory work, and workshop in determining the final grade. This outline may also describe the course content and textbooks and other reading material.

- **Extra Class:** Extra class should be scheduled only after consultation with the students registered in the course at a time mutually convenient to everyone. Extra classes to hold a quiz or a laboratory test should not be inconveniently scheduled for any concerned student. LHC is not available for extra classes on Sundays and gazetted holidays.

- **Availability to students:** Instructors should specify office hours during which they will be available for consultation by students in their offices.

- **De-Registration:** If an instructor finds that a registered student has missed quite a few lectures (ten or more) in the course without sanctioned leave, then s/he can be de-registered from the course. The request for de-registration must reach SUGC at least 4 weeks before the last class.

Academic Responsibilities

- **Quizzes in Core Courses:** The core course instructors must hold at least one quiz before the mid-semester exam and at least one quiz between the mid-semester and the end-semester examination.

- **Continuous Performance Report:** It is of utmost importance that the graded copies of the examinations and quizzes be shown to the students as soon as possible.

- **Examination Copies:** The mid-semester examination and quiz copies should be returned to the students. Mid-Semester examination copies are to be shown to students as early as possible but not later than fourteen days after the last date of Mid-Semester Examination. The end-semester examination copies should be taken back after showing them to the students.

- **Submission of Grades:** The instructor in charge must submit the final grades of End-Semester Examination after 72 hours if the class has up to 50 students, 90 hours if the class size is greater than 50 but no more than 150, 120 hours if the class size is greater than 150.

Important Documents

- Act & Statutes

- Ordinances

- Senate Manual

- UG Manual

- PG Manual

THANKS

Office of Dean of Academic Affairs

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