

INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE

DEPARTMENTAL REVIEW TEMPLATE

- 1. Name of Department/Center : Dept. Biotechnology
- 2. Reviewers : Alok BHATTACHARYA, Jawaharlal Nehru Unio. N Delhi
K V R Chary, TIFR, ~~Delhi~~ Mumbai
G D Yadav Mumbai
- 3. Date of Review: April 14, 2014

GRID FOR ASSESSMENT

NOTE:

- i. Please grade in the box provided for the following parameters in the range of 1-10 with 10 being the highest.
- ii. Leave 'blank' for 'No Comment'.
- iii. Kindly give your opinion on the strength and weakness of the Department/ Center and your suggestions for future growth.

I. ACADEMICS

		Score
I.1	Undergraduate	
1.	Curriculum	5
	i. Curricular Structure	
	ii. Course Syllabi	5
	iii. Flexibility	
2.	Formal Academic Load on Students	6
	i. Teaching	5
	ii. Laboratory/Practical	5
	iii. Projects(minor/major)	
3.	Evaluation Process	5
	i. Continuing Evaluation	5
	ii. Mid-term Evaluation	5
	iii. End-term Evaluation	

(Handwritten signatures and initials)

4.	Academic Ambience	5
5.	Opportunity for Peer-Based Learning	5
6.	Opportunity for Further Learning(Breadth and Depth)	6
	i. Elective Courses Specialization	6
	ii. Minor with Major Discipline	6
	iii. Honors Programme in Major Discipline	6
7.	E-Assisted Learning	5
	i. Availability of Library Resources and Major Search Engines (like Scopus, Web of Science)	5
	ii. Multi-Media Assisted Teaching	5
8.	In –Curriculum Research/Exploration Opportunity to Students	5
9.	Technical Societies/ Colloquium for Students	5
	i. Departmental Society	5
	ii. Student Chapter(s) of Professional Societies	3
10.	Faculty –Student Interaction	4
11.	Faculty Mentoring of Students	4
12.	Faculty Advisor System for Students/Class of Students	4
13.	Self Study Courses for Student	5
14.	Effective Teaching Mechanism for Enhanced Number of Students in Various Classes	6
15.	Effectiveness of Assisted Learning: Tutorial System for B.Tech Students/ Seminars	5

I.2	Graduate Programmes (Masters)	Score
1.	Curriculum	6
	i. Curricular Structure	6
	ii. Course Syllabi	5
	iii. Flexibility	5
2.	Formal Academic Load on Students	6
	i. Teaching	6
	ii. Laboratory/Practical	6
	iii. Seminar/Dissertation	6
3.	Evaluation Process	5
	i. Continuing Evaluation	5
	ii. Mid-Term Evaluation	5
	iii. End-Term Evaluation	4
4.	Academic Ambience	4
5.	Opportunity for Peer-Based Learning	4
6.	Opportunity for further Learning(Breadth and Depth) Elective Courses (Specialization Electives)	5
7.	E-Assisted Learning	5
	i. Availability of Library Resources and Major Search Engines (like Scopus, Web of Science)	5

(Signature) *(Signature)*

Futuristic Areas For Hiring Faculty Members

system engineering, Genomics and Computational Fluid dynamics, Systems Biology, Process Genomics, Computational

Research Areas for Improvement

structural Biology, Genetics and molecular Biology, scale-up, Metabolic Engineering

Comments (not more than 100 words for each given below)

Strength: Large number of foreign trained young faculty
Good infrastructure as far as high-end state-of-the-art sophisticated instruments.

Weakness: student-faculty interaction, lack of simple basic facilities in each laboratories. Lack of technical support. Research problems needs to be contemporary. No regular internal or external seminars. Lack of inter-group interaction within the department and with other departments

Suggestions for improvement: Lack of interaction with Industry. Lack of maintenance grant.

One time Rs 10/- lakhs per faculty for basic infrastructure and instruments about which there is a discontent among the students & faculty. Appointment of competent technical staff to operate and maintain all instruments atleast one person per two laboratories. All sophisticated instruments must be under AMC. The expenses for AMC should be borne by the Institute. whenever there is an external funding for any project, 15% of the contingency grant should be utilized for the maintenance of minor equipment in the laboratory. Research scholars selection procedure needs an overhaul. Department should have a website, describing the each faculty research interests and ongoing research projects with relevant references to their recent publications. Each faculty should define their potential projects with abstract(s) for MHRD funded projects for the benefit of research scholars. Separate course structure for Ph.D students. Institute to sponsor high impact publications (IF74). Institutional mechanism to get faculty under INSPIRE program

III. Departmental Infrastructure

		Score
1.	Adequacy of Class Rooms and Multi-Media Facility	7
2.	Availability of Laboratories	6
3.	Availability of Conference/Seminar Room, etc.	7
4.	Availability of Seating Space for Research Students	6
5.	Availability of Internet Services in Research Labs and Class Rooms	7
6.	Departmental Library and E-Resources	7
7.	Computing Facilities and Software	7
8.	Adequacy of Offices and Furnishing for Faculty	7
9.	Faculty- Student Ratio	7
10.	Support Staff (Technical/Administrative) Adequacy	3

K. V. R. Chandy




Comments (not more than 100 words for each given below)

Strength:

- 1. High end facilities
- 2. New building and new labs

Weakness:

- 1. Small equipments needed day to day
- 2. Routine maintenance and repair
- 3. Technical support
- 4. A pilot plant for process development

Suggestions for improvement:

Please see above (section II)

IV. Admissions of Ph.D Students

		Score
1.	Intake of Ph.D Students	6
2.	Admission Process	3
<p>Suggestions: Needs revamping the admission process Please see section II for details.</p>		


 [Signature]