

University of Delhi

Internal Quality Assurance Cell

Benchmarks for Quality Initiatives of Departments Assessment Proforma

The objective of the IQAC of the University of Delhi is to sustain and enhance quality in teaching, learning, research and outreach with the overarching goal to achieve international distinction and standards in these areas.

Towards the fulfillment of these objectives, the IQAC has devised some Quality Benchmarks as Assessment Criteria of quality initiatives by each Department for enhancing quality.

The aim of the benchmarking exercise is to identify the gaps between the current parameters of the departments vis-à-vis 'best' performers to be compared against. This would help to identify standards and performances and provide a road map for continuous quality improvement. This would thus provide support and direction to the departments as well as the University for future planning and formulation of quality strategies.

The benchmarking exercise is expected to improve processes that are critical to growth of the University. It will help establish goals and identify additional avenues for improvement. The exercise will also create a better understanding of global practices. It is expected to promote quantum leaps in performance and foster excellence, breakthrough thinking and innovation. It will also help identify more effective ways of improving performance.

To measure the 'best' performers, each department can use its own standardization criteria such as the QS ranking or any other discipline related ranking. This must be specified on top of the proforma on the next page.

The attached parameters of each Department may be rated on a scale of 0 (lowest) – 5(highest) to indicate the present status in comparison to best international standards. The period of assessment may be last five years.

The benchmarking scale is described below:

Rating	Percentage %	Benchmarking Scale: 0-5/NA
None	0-10	0
Inadequate (Limited)	10-40	1
Somewhat Adequate (Some)	40-50	2
Fairly Adequate (Moderate)	50-60	3
Largely Adequate (Extensive)	60-80	4
Fully Adequate (Comprehensive)	> 80	5

Notes:

NA denotes Not Applicable

For calculation of 'Average', the entry of 'zero' must be included. 'NA' will not be included.


Sections I and II of the proforma must be completed.


Department **BIOCHEMISTRY**

Benchmarking Criteria Self-assessment in comparison to international standards. The scale used is as mentioned on the previous page.


Section I

Focus Area	Parameters	Rating Scale 0-5/NA
Curricular Aspects	1. Curricular Content (In relation to similar courses globally)	5
	2. Curricular Relevance (Based on academic and job prospects in relevant area)	5
	3. Curricular Flexibility/Interdisciplinarity (Exposure to related but other subject areas of relevance to particular field)	4
	4. Balance of Theory and Practical Content, if applicable (Relevance of practical session applications with respect to subject area and the theoretical concentration of syllabus)	5
	5. Comparison with Global Standards, if applicable (Comparison with similar courses worldwide)	5
	6. Revision/ Upgradation/ Frequency of Introduction of New Courses (Recommended frequency - once in three years)	3
Average		4.5
Teaching Learning and Evaluation	1. Faculty/Student Ratio (UGC norms:20 students/teacher)	5
	2. Student Diversity (Reservation policy wise and culturally)	5
	3. Foreign Students in the Department (Number vs recommended limit)	0
	4. Student Participation (Student activities inbuilt into teaching-learning)	5
	5. Percentage of Students Passed (Out of total)	5
	6. Innovative Teaching Practices (e.g. ICT, Simulation Activities)	5
	7. Use of ICT in Teaching (Presentation, video, laptop, visualizer)	5
	8. Separate Teaching and Research Laboratories (Separate Masters and Research laboratories)	5
	9. Result Declaration in Time (Normal time taken- one month from end of exam)	4
	10. Student Participation in National / International Conferences and Workshops (Mainly M.Phil./Ph.D.)	5
	11. Student Feedback Mechanism (e.g. Students' Experience Survey)	5
	12. Contact Hours of Faculty (Whether the department has earmarked separate hours for students to contact faculty members)	4
	13. Faculty Development Initiatives (Career enhancement sessions, workshops, courses, lectures organized by department, faculty members encouraged for courses conducted outside)	0

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Focus Area	Parameters	Rating Scale 0-5/NA
Research, Consultancy and Extension	1. Ph.D. Students (With respect to Numbers)	5
	2. Ph.D. Awarded Last 5 Years (With respect to Numbers)	5
	3. Quality of Doctoral Research (As evidenced from quality publications, patents etc.)	5
	4. M.Phil. Students (With respect to Numbers)	0
	5. M.Phil. Awarded Last 5 Years, if applicable (With respect to Numbers)	0
	6. Quality of M.Phil. Research (As evidenced from conference presentations, publications)	0
	7. Number of Research Fellows – JRF, SRF, RA etc.	5
	8. Students Clearing NET	4
	9. Faculty Publications: Refereed Journal Articles, Books, etc.	5
	10. Publications Listed in International Database (Discipline specific parameter)	5
	11. Citation Index (Discipline Specific parameter)	5
	12. Faculty Participation in National/International Conferences, Seminars, Workshops, Invited Talks, Panelist	5
	13. Faculty Participation in Academic Professional Bodies	5
	14. Faculty Participation as Editor and/or Referee of Academic Journals (Journals discipline specific and prestige associated with these)	5
	15. Faculty Visits to Other Universities (National/International, Discipline specific and provision)	3
	16. Research Output Based on standardized Parameters: H-Index, Impact Factor etc. (Discipline specific provision)	5
	17. Research Awards/Honors/Fellows/Fellowships (Subject specific provision)	5
	18. Interdisciplinary Research (Associated disciplines)	3
	19. Research on National/Social Challenges (Societal relevance and outcome based research)	5
	20. Foreign Collaborations (Collaborations with departments abroad or with individuals)	2
	21. Research Projects (Major/Minor, No. of faculty members receiving out of total)	5
	22. SAP/FIST/Other Funding	4
	23. University R&D Funding (No. of faculty members receiving out of total)	5
	24. Sponsored Research (No. of faculty members receiving out of total)	5
	25. Consultancy (No. of faculty members undertaking out of total)	1
	26. Industry-Institute Partnerships (Industry relevance for research and teaching)	1
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	Parameters	Rating Scale 0-5/NA
	27. Patent and Licenses (Indian, foreign)	3
	28. Seminars, Conferences, Workshops Organized (Local, regional, national, international)	4
	29. Department Journal/Newsletter/Magazine (Whether the department has any academic output in the form of a journal/magazine etc.)	0
	30. Extension Activities (Outreach to society, camps, workshops, trainings)	2
Average		4.11
Infrastructure	1. Classroom Facilities – Number (Relative to total strength of students, seminar room)	5
	2. ICT Enabled Classrooms (Whether all the classrooms have projector and digital display facilities)	5
	3. ICT Infrastructure of the Department (Whether the Department has adequate computers and Wi-Fi facilities for faculty, students and administrative purposes)	4
	4. Access to Central Instrumentation Facilities of the University, if applicable (Whether working in CIF is easily facilitated)	5
	5. Laboratory Facilities (Whether laboratories have adequate common and specialized facilities for practical and research work)	5
	6. Central Instrumentation Facility of the Department, if applicable (Whether department has a common facility where equipment is accessible to all)	3
	7. Availability of Equipment (For practical classes)	5
	8. Library Resources/Facility (Whether department have a library facility and digital resources)	3
	9. Technology Upgradation	3
	10. Department Website	4
	11. Availability of Manpower for Maintenance of Scientific and ICT Facilities	2
	12. Seminar Room	4
	13. Washroom Facility	4
Average		4
Student Support and Progression	1. Student Internship (Internship integrated into the programme)	5
	2. Scholarships/ Financial Support	5
	3. Student Skills Development (Training programs/Workshops conducted by department)	4
	4. Student Counseling and Career Guidance (Department Placement Cell or Career Guidance Camps by Department)	3

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Focus Area	Parameters	Rating Scale 0-5/NA
Student Support and Progression	5. Student Mentoring and Support (Interaction with faculty, seniors and alumni)	5
	6. Student Placement (Percentage of students who are placed on campus)	2
	7. Gender Sensitization	5
	8. Equal Opportunity (Facilities for differently-abled)	4
	9. Social Initiatives (Outreach activities for connecting with society/community)	1
	10. Student Activities (Student competitions, cultural and literary activities)	4
	11. Internal Complaints Committee/Sexual Harassment Committee	4
	12. Anti Ragging Committee	4
	13. Anti Smoking Committee	5
	14. Joint Student Consultative Processes	3
Average		3.85
Governance, Leadership and Management	1. Student Faculty Interaction (Joint consultative meetings, one-on-one)	4
	2. Student/Non-Teaching/Staff Interface	4
	3. Departmental Committee Meetings	5
	4. Financial Audit	5
	5. Support Staff Development (Trainings/Workshops for Non-teaching staff)	4
	6. Grievance Redressal Mechanism (Committee/Process)	4
Average		4.3
Overall Average		4.2
Section II		
Best Practices and Innovations Introduced (Examples of best practices and innovations are given in Annexure) The students and faculty members observe very high standards in respect of ethics for publication, use of animals for research, biosafety etc. In addition to the theoretical knowledge, our M.Sc. program provides considerable emphasis on the hands on experience in the forefront areas of biochemistry through a dissertation based on research work and thesis writing avoiding plagiarism. Special emphasis on critical review of literature and presentation by way of training in seminars. Very well equipped international, standard laboratories expose students to cutting edge research activities. Students are given free access to libraries and journals. They have ample computer access and round the clock access to internet. We have central instrumentation facility and animal house on campus. We have sequencing and microarray facilities and several state-of-the art equipments necessary for high-end research. Department also regularly organize symposiums, invited lectures by outstanding academicians, educational trips for motivation of students. Student feedback are obtained, they are sensitized for cleanliness, green campus, Yoga activities etc.		

<p>Benchmarks Achieved It is an accomplished department with several outstanding achievements.</p>
<p>Identification of Improvement Areas Faculty development initiatives, intake of foreign students, industry institute partnership, student placement cell, interdisciplinary teaching, more space for research labs and student common room, initiation of M.Phil programme and foreign collaborations, regular upgradation of courses and syllabus changes, social and extension activities.</p>
<p>Quality Improvement Strategies of Improvement Areas- Department Website is in place for display of all current and upcoming activities, homepage for all faculties/lab, syllabus, entrance criteria etc where we can also invite industries and placement cells as well as initiate newsletter and magazine. Syllabus is being revised involving student's feedback, Planning to organize lectures on teaching methodologies for faculty training, creation of better research environment, collaborative research is being encouraged, motivation/ counseling of students for better performance, paperless work is encouraged in office</p>
<p>Quality Improvement Strategies for the next year Syllabus change as per CBCS guidelines, faculty hiring, inviting guest speakers from industry, involvement of alumni students to guide current students, further student-faculty interactions, well planned educational tours for students, invited lectures by outstanding academicians, continuous student feedback.</p>

Suman Kundu

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ANNEXURE-I

Suggestive Best and Innovative Practices

(Some suggested practices may be overlapping across sections.)

Faculty Specific

- Orientation of teachers for the latest pedagogical teaching technology
- Innovative approaches to teaching-learning processes
- Interactive pedagogy
- Innovative nature of assessment
- Problem based learning
- Case Studies
- Simulation and role playing
- Innovative short lecture teaching methodology
- Portfolio-Based learning
- Invited lectures of outstanding academicians
- Guest lectures from industry
- Open Lecture Series from Visiting Professors
- Popular Lecture Series
- Creation of better research ambience
- Nurturing an institutional culture for innovation that enhances creativity
- Research Incentives for faculty
- Field work
- Collaboration with national and international institutions of repute
- Outside Funding
- Website of Department updated regularly
- Time Table on website
- Home Page of every faculty member
- Decentralization of academic and administrative functions through Committee System
- Business Partnerships

Student Specific

- Field project, field trips, surveys
- Creation of research culture among students
- Fostering an innovation culture for students
- Competitions for Innovative Business Start-up Plans
- Remedial Teaching of disadvantaged and slow learners
- Student Counseling/Mentoring
- Peer Study Groups/Peer learning
- Peer Assessment
- Orientation for students to University, library, examination system etc.
- Incentives for quality performance
- Student Feedback
- Industry-Academia linkages
- Field project, field trips, surveys
- Placement Cell
- Involve students in infrastructure maintenance
- Involve alumni in student development
- Social bonding through community service
- International students
- Student-run independent newspaper/magazine

Infrastructure

- Access for students with disability
- Eco-friendly campus
- Water harvesting
- Recycling waste
- Waste disposal/Write-off
- Upkeep of premises