

Department of Biotechnology

TERI School of Advanced Studies, New Delhi

Venue: Media Lab Time: Whole two days

Date: 5th and 6th February 2019

Members Attended:

Dr. Anandita Singh

Dr. Ramakrishnan Sitaraman

Dr. Pallavi Somvanshi

Dr. Udit Soni

Dr. Shashi Bhushan Tripathi

Dr. Chaithanya Madhurantakam

Agenda:

I. Review of SSR points on the basis of relevant sections from the NAAC manual (please find same as attachment) as required by Dean (Academic). Following points from "Quality Indicator Framework" will be discussed-

Criteria 1: 1.1.1, 1.1.2, 1.1.3, 1.2.1, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.4.1, 1.4.2

Criteria 2: 2.2.1, 2.3.1, 2.3.3, 2.4.3, 2.4.4, 2.5.1, 2.5.4, 2.6.1, 2.6.2

Criteria 3: 3.1.3, 3.1.4, 3.1.6, 3.2.1, 3.2.2, 3.2.3, 3.3.2, 3.3.3, 3.3.4, 3.4.1, 3.4.4, 3.4.6, 3.6.1, 3.6.2, 3.6.3,

3.6.4, 3.7.1, 3.7.2, 3.7.3

Criteria 4: 4.2.7

Criteria 5: 5.1.3, 5.2.2, 5.2.3, 5.3.1, 5.3.2, 5.3.3

- II. The course framework of all the courses offered for MSc PBT will be cross-checked and corrected (if any) based on the format provided by Ms. Pooja/IQAC.
- III. To prepare a road map for syllabus revision of MSc PBT.

Minutes of the meeting:

I. DBT faculty members have discussed following points from NAAC manual and responses for each point is also listed accordingly.

Criterion I: Curricular Aspects

1. 1.1.1: Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including Programme outcomes, Programme specific outcomes and course outcomes of all the Programme offered by the University

Response to 1.1.1: Needs are to be mapped to: Learning Objectives, Programme Outcomes, Programme specific outcomes. The Department would like to alter/modify the narrative for MSc PBT The department would like to include in the MSc PBT Program write up with considering following points-

a. Distinguish between global and national needs

- b. The programme contributes to the (global) SDG and then national needs (national mission) and specific to the (MSc PBT) SDG and National mission are to be incorporated.
- c. Food and nutritional security
- d. SDG Points (2,3,4,7,9,12,13 respectively)
 - i. SDG 2: Zero hunger
 - ii. SDG 3:Good health and well being
 - iii. SDG 4: Quality education
 - iv. SDG 7: Affordable and clean energy
 - v. SDG 9: Industry and Infrastructure and Infrastructure
 - vi. SDG 12: Responsible consumption and production
 - vii. SDG 13: Climate action
- 2. 1.1.2: Percentage of Programmes where syllabus revision was carried out during the last five years
 - **Response to 1.1.2:** Data-based calculations, as and when we implement changes (Across university data)
- 3. 1.1.3: Average percentage of courses having focus on employability/entrepreneurship/skill development during the last five years
 - **Response to 1.1.3:** The Department faculty has already addressed this requirement in the existing courses wherever applicable.
 - [IQAC members to scrupulously mentor uploading department related files]
- 4. 1.2.1: Percentage of new courses introduced of the total number of courses across all Programmes offered during the last five years
 - Response to 1.2.1: Data-based calculations, as and when we implement changes (Across university data)
- 5. 1.2.2: Percentage of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented (current year data)
 - Response for 1.2.2: MSc PBT will get into CBCS
- 6. 1.3.1: Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum
 - Response 1.3.1: BBP 171, BBP 141 are already included
- 7. 1.3.2: Number of value-added courses imparting transferable and life skills offered during the last five years
 - **Response 1.3.2:** PBT commits to develop "value added courses" to promote social engagement. (Possibility: Convert field tours into value added courses for engaging with local community. Equivalent to: 40 contact hours, valuing up to 2 credits.

8. 1.3.3: Average Percentage of students enrolled in the courses under 1.3.2 above

Response to 1.3.3: Data-based calculations (by Admin)

9. 1.3.4: Percentage of students undertaking field projects / internships (current year data)

Response to 1.3.4: Data based calculations (by Admin)

10. 1.4.1: Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni 5) Parents, for design and review of syllabus - Semester wise /year wise

Response to 1.4.1 and 1.4.2: Structured feedback system needs to be developed by TERI SAS and vetted by IQAC to address pt. no. 1.4

Criterion II - Teaching Learning and Evaluation

11. 2.2.1: The institution assesses the learning levels of the students, after admission and organises special Programmes for advanced learners and slow learners

Response to 2.2.1: Department Proposes 3 aspects:

- I. Academic level assessment of students at the time of admission
- II. After admission, departments will conduct "SLA: Scholastic Level Assessment" to determine the learning levels of the students (Pre SLA). Purpose of Pre SLA: Assessment level of students.
- III. Post SLA: At the time of exit i.e. 4th semester, "final" SLA will be conducted. Purposes of Post/Final SLA, to determine the outcome.

Proposed mechanism for implementation of the above:

- i. Pre SLA will be conducted during BBP 101 second week.
- **ii.** After evaluation is completed for Test 1, MPEC will be conducted to categorize slow, average and fast learners and also use Pre-SLA data
- **iii.** Based on the recommendations of course coordinators and discussion among all MPEC members.

Appropriate measures to include a suitable combination of:

- 1. Remedial coaching (Framework to be determined at the University level)
- 2. Bridge course (Framework to be determined at the University level)
- 3. Counseling for both slow and advanced learners who are identified through this process.
- 12. 2.3.1: Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Response to 2.3.1: The Department will provide all documentation/information of student centric methods being used.

Proposed implementation plan: Through qualitative assessment in existing feedback forms

- 13. 2.3.3: Number of mentors data requirement:
 - Number of students assigned to each Mentor

Response to 2.3.3: Department will assign academic mentors for MSc PBT students (The role of the mentors to be determined by the University)

2.4.3: Total experience of full-time teachers

Response to 2.4.3: Administrative task and has to be updated every 3 months and made available on need basis

14. 2.4.4: Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response for 2.4.4: DBT will provide

15. 2.5.1: Average number of days from the date of last semester-end/ year- end examination till the declaration of results during the last five years

Response 2.5.1: Administrative

16. 2.5.4: Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system

Response 2.5.4: Administrative/Controller of examination to respond

17. 2.6.1: Programme outcomes, Programme specific outcomes and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students

Response for 2.6.1: The department proposes to reframe programme outcomes, programme specific outcomes.

18. 2.6.2: Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution

Response for 2.6.2: University level criteria to be developed

Criterion III - Research, Innovations and Extension

19. 3.1.3: Number of teachers awarded international fellowship for advanced studies/ research during the last five years

Response for 3.1.3: Data based entry, DBT will provide regularly.

20. 3.1.4: Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows in the university enrolled during the last five years

Response for 3.1.4:

- Department to provide the data
- PhD Scholars, MSc students specific data to be collated by programme manager/administration
- 21. 3.1.6: Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognitions by government agency (current year data)

Response to 3.1.6: Data-based entries.

22. 3.2.1: Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Response to 3.2.1: Data-based entries.

23. 3.2.2: Grants for research projects sponsored by the government sources during the last five years (INR in Lakhs)

Response to 3.2.2: Data-based entries.

24. 3.2.3: Number of research projects per teacher funded by government and non-government agencies during the last five years

Response to 3.2.3: Data-based entries.

25. 3.3.2: Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years.

Response to 3.3.2: Data-based entries.

26. 3.3.3: Number of awards for innovation won by institution/teachers/research scholars/students during the last five years

Response to 3.3.3: Data-based entries.

27. 3.3.4: Number of start-ups incubated on campus during the last five years

Response to 3.3.4: Data-based entries.

28. 3.2.3: Number of research projects per teacher funded by government and non-government agencies during the last five years

Response to 3.2.3: Faculty to provide the data and University wide data

29. 3.4.1: The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

Response to 3.4.1: University wide policies

30. 3.4.4: Number of PhDs awarded per teacher during the last five years

Response to 3.4.4: Admin to provide data

31. 3.4.6: Number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years

Response to 3.4.6: Faculty to provide information to Admin

Extension activity

32. 3.6.1: Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

Response to 3.6.1: Refer to response 1.3.1 and 1.3.2

33. 3.6.2: Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

Response to 3.6.2: Department will provide information as and when required.

34. 3.6.3: Number of extension and outreach Programmes conducted in collaboration with industry, community andNon- Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years

Response to 3.6.3: TERI SAS Biotechnology Society needs to be constituted and notified

Composition for the same:

a. Secretary

-To be elected

- **b.** All DBT faculty
- c. All MSc Students
- d. All PhD Scholars
- e. DBT support staff
- f. Alumni's

Mandate:

- Promote awareness in Bio lab
- Maintain contacts (Alumni)
- Outreach and awareness on recent advances and contemporary issues in Biotechnology
- 35. 3.6.4: Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and Programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response to 3.6.4: University wide data

36. 3.7.1: Number of Collaborative activities for research, faculty exchange, student exchange per year

Response to 3.7.1: Department will provide information as and when required.

37. 3.7.2: Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during last five years

Response to 3.7.2: Department will provide information as and when required.

38. 3.7.3: Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Response to 3.7.3: Department will provide information as and when required.

Criterion IV - Infrastructure and Learning Resources

39. 4.2.7: E-content is developed by teachers :

Response to 4.2.7: The department encourages DBT faculty members to develop e-content in their individual capacities

Criterion V - Student Support and Progression

Student Progression

- 40. 5.1.3: Number of capability enhancement and development schemes
 - 1. Guidance for competitive examinations
 - 2. Career Counselling
 - 3. Soft skill development,
 - 4. Remedial coaching,
 - 5. Language lab,
 - 6. Bridge courses
 - 7. Yoga and Meditation
 - 8. Personal Counselling

Response to 5.1.3: DBT will explicitly take care of pt. 1, 2, and 6.

Proposed method of implementation -

Bridge course has been identified in existing programme outline of Applied Mathematics. Following will be the course description for Applied Mathematics offered for MSc PBT

Course Description: This bridge course is designed to meet the requirement of basic mathematical knowledge in various subsequent courses offered in the master's degree program in PBT.

Suggestions for Dr Bhanu Shree/Dr Prateek Sharma

- Change Project code according to programme description
- Applied mathematics course details have to be specified as Bridge/Elective course as per the programme.

Recommendations for University wide Initiatives:

- a) Soft skill development
- b) Yoga and Meditation
- c) Personal Counseling
- d) Language lab to be explicitly made part of Communication skills
- e) Policy for remedial coaching in a formal manner
- f) Administration should make a repository of student data

41. 5.2.2: Percentage of student progression to higher education (previous graduating batch) (current year data) (15)

Response to 5.2.2: Administration to track the career details of the outgoing students through active alumni related activities. A repository/database of all students

42. 5.2.3: Average percentage of students qualifying in state/ national/ international level examinations during the last five years (eg: NET/SLET/GATE/GMAT/CAT/GRE/TOEFL/Civil Services/State government examinations)

Response to 5.2.3: Administration to track the career details of the outgoing students through active alumni related activities. A repository/database of all students

43. 5.3.1: Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) during the last five years (10)

Response for 5.3.1: Same as 5.2.2 and 5.2.3

- II. DBT has opted to modify the course format as per the course requirement/need. A blank is also provided with the minutes as annexure I
- III. DBT proposes to constitute a "programme review committee" to address the agenda point II and III with following composition:
 - a) All DBT faculty
 - **b)** CRs from both batches
 - c) PC (or nominee)

DET Faculty

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