

Academic Audit (2021-22)

(For Departments offering Engineering and Applied Science Programs)

DELHI TECHNOLOGICAL UNIVERSITY

New Delhi-110042

Department of

(To be filled up by Academic Expert)

Name & Signature of the Auditors:

The day and Date of visit:

Summary

| S. No. | Parameters of Evaluation | Max. Marks | Self -Assessment score | Marks Scored |
|--------------|---------------------------------------|-------------|------------------------|--------------|
| 1 | Curricular Aspects | 150 | | |
| 2 | Teaching Learning and Evaluation | 200 | | |
| 3 | Research, Innovation & Extension | 250 | | |
| 4 | Infrastructure & Learning Resources | 100 | | |
| 5 | Student Support & Progression | 100 | | |
| 6 | Governance, Leadership & Management | 100 | | |
| 7 | Institutional Values & Best Practices | 100 | | |
| Total | | 1000 | | |

Grading System:

| Grade | Details | Total Marks scored |
|------------|-----------------------|--------------------|
| A++ | Outstanding | 880 - 1000 |
| A+ | Excellent | 816 - 879 |
| A | Good | 751 - 815 |
| B++ | Average | 691 - 750 |
| B+ | Acceptable | 625 - 690 |
| B | Not Acceptable | Below 625 |

SWOT Analysis of the Department:

1. Strengths

2. Weaknesses

3. Opportunity

4. Threat

Suggestions based on information:

1. Curricular Aspects (150)

1.1 Curricular Content (115)

| S. N. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|-------|--|----------------|-----------------------|--------------|
| 1.1.1 | Curricula content to provide understanding of concepts of (with sufficient practical exposure) (5 years data) | | | |
| | Basic curriculum components (basic science, basic engineering, management & humanities, computer skills, professional ethics, environment and human values, | 35 | | |
| | Programme core, department elective, open elective) | 40 | | |
| | Structure of the curriculum (L+T+P) | 5 | | |
| | Projects/Internships/Self learning practices | 10 | | |
| 1.1.2 | Do the curricula take care of slow and fast learners learning simultaneously? | 10 | | |
| 1.1.3 | Revision/Upgradation of the curriculum to incorporate <i>appropriate new knowledge systems</i> (based on no. of BoS meeting) | | | |
| | Percentage of program where minor syllabus revision was carried out | 5 | | |
| | Percentage of program where major syllabus revision was carried out | 5 | | |
| 1.1.4 | Average percentage of courses having focus on employability/ Entrepreneurship/ skill development | 5 | | |
| | Total | 115 | | |

1.2 Feedback and Corrective Action (35)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|---|---|----------------|-----------------------|--------------|
| 1.2.1 | Feedback | | | |
| | Student Feedback on design and review of Syllabus | 4 | | |
| | Faculty Feedback on design and review of Syllabus | 4 | | |
| | Employer's feedback on design and review of Syllabus | 4 | | |
| | Alumni Feedback on design and review of Syllabus | 4 | | |
| | Parent's feedback on design and review of Syllabus | 4 | | |
| 1.2.2 | Student Feedback at the end of semester (Overall impression reported by students) | 10 | | |
| 1.2.3 | Corrective action taken by department for point 1.2.1, 1.2.2 | 5 | | |
| | Total | 35 | | |
| Any additional comments/feedback/observations/advice which may or may not be based on above points: | | | | |

2. Teaching - Learning Process and Evaluation (200)

2.1 Student Enrolment and Profile (30)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|--------|---|----------------|-----------------------|--------------|
| | Average percentage of students from other states | 4 | | |
| | Average percentage of students from other countries | 4 | | |
| | Demand ratio UG/PG Program | 8 | | |
| | Percentage of female students on roll | 4 | | |
| | Student to full time teacher ratio | 10 | | |
| | Total | 30 | | |

2.2 Faculty Profile (40)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|--------|---|----------------|-----------------------|--------------|
| | Average percentage of full time teachers against sanctioned post | 9 | | |
| | Average percentage of full time teachers from other states/ countries against sanctioned post | 5 | | |
| | Average percentage of full time teachers with PhD degree | 5 | | |
| | Teaching Experience per full time teacher in no. of years | 5 | | |
| | Percentage of full time teachers who received awards, recognition, fellowship at State/ National/ International Level from Govt./ recognized bodies | 4 | | |
| | Percentage of teachers using the ICT for effective teaching with LMS | 4 | | |
| | E-content developed by Faculty for e-PG Pathshala / CEC (UG)/ SWAYAM/ MOOCs platform/ NPTEL/ NMEICT/ Moodle/ any other | 4 | | |
| | Ratio of Students to mentor for academic and stress related issues | 4 | | |
| | Total | 40 | | |

2.3 Teaching – Learning Process (60)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|--------|---|----------------|-----------------------|--------------|
| 2.3.1 | Theory lectures | | | |
| | Average % of lectures conducted | 10 | | |
| | Percentage of courses for which course file consisting of teaching plan, execution plan etc. available and updated | 15 | | |
| 2.3.2 | Practical | | | |
| | Average % of practical conducted compared with that minimum required as per curriculum: | 10 | | |
| | Availability of laboratory manual and its quality | 5 | | |
| | Maintenance of laboratory equipment and new addition | 5 | | |
| 2.3.3 | Theory attendance of students | | | |
| | Average % of lectures attended by students | 5 | | |
| 2.3.4 | Practical attendance of students | | | |
| | Average % of practical attended by students | 2 | | |
| 2.3.5 | Home assignments and its assessment. | 2 | | |
| 2.3.6 | Efforts taken by Department to improve performance of academically weaker students through remedial classes | 2 | | |
| 2.3.7 | Efforts taken by Department to improve overall performance of students including Quality Circle/Courses conducted/ Expert lectures etc. | 4 | | |
| | Total | 60 | | |

2.4 Examination System (40)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|--------|--|----------------|-----------------------|--------------|
| 2.4.1 | Examination Process | | | |
| | Transparency in the processes like internal assessment; scrutiny and declaration of result | 10 | | |
| | Appropriate weight-age for continuous evaluation and end semester examination. | 10 | | |
| 2.4.2 | Quality of MSE/ESE Question Papers (Coverage of syllabus, Difficulty level, mapping with CO/PO/PSO) -Question papers audit by the department/ university | 20 | | |
| | Total | 40 | | |

2.5 Students Performance and Learning Outcomes (30)

| S. N. | Sub-parameter | Marks Assigned | | Marks Scored |
|--|--|----------------|--|--------------|
| 2.5.1 | Student Performance in Exam | | | |
| | Success rate without backlog in stipulated period (Based on final year result) | 8 | | |
| | Success rate with backlog in stipulated period | 8 | | |
| 2.5.2 | Learning outcome | | | |
| | Program Outcomes, Program specific Outcomes and Course Outcomes for all programs offered by the department are stated and displayed on the prominent places including Website, communicated to teachers and students | 8 | | |
| | Percentage of Programs for which Attainment of Program Outcomes, Program specific Outcomes and Course Outcomes are calculated. | 6 | | |
| | Total | 30 | | |
| Any additional comments/feedback/ observations/advice which may or may not be based on above points: | | | | |

3. Research, Innovation and Extension (250)

| S. N. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|-------|---|----------------|-----------------------|--------------|
| 3.1 | Promotion of Research & Facilities | | | |
| | Average seed money provided to faculty per year for research | 5 | | |
| | No. of teachers awarded international fellowship for advance study/ research | 5 | | |
| | No. of JRF/ SRF/ PDF/ RA and other research fellows enrolled in the Department | 5 | | |
| | Recognition of department from UGC-SAP, CAS, DST-FIST, DBT, ICSSR or any other similar Govt. agency | 5 | | |
| | Total | 20 | | |
| 3.2 | Resource Mobilization for Research | | | |
| | Grants for research received from Non-govt. sources such as Industry, International bodies, endowments, Chairs in the institution | 5 | | |
| | Grants for research received from Govt. sources | 10 | | |
| | No. of research projects per teacher (funded from outside University) | 5 | | |
| | Total | 20 | | |
| 3.3 | Innovation Eco system | | | |
| | No. of award for innovation won by department/ faculty/ student | 15 | | |
| | No. of Start-ups incubated in DTU/ outside incubators by the department/ faculty/ student | 15 | | |
| | Total | 30 | | |
| 3.4 | Research Publication and Awards | | | |
| | No. of patents published/ granted | 20 | | |
| | No. of PhDs awarded per teacher | 20 | | |
| | No. of Research papers per teacher in indexed Journals (SCOPUS/ SCI/ SCIE/ Web of Science) | 20 | | |
| | No. of Books Chapters in edited Volumes per teacher | 5 | | |
| | No. of Books Published per teacher | 10 | | |
| | No. of Papers published in National/ International Conference Proceedings | 15 | | |
| | Average h-index of the department as per SCOPUS/ Web of Science | 5 | | |
| | Average citation index of the department as per SCOPUS/ Web of Science/ Indian Citation Index | 5 | | |
| | Total | 100 | | |
| 3..5 | Consultancy | | | |
| | Revenue generated from Consultancy/ from Corporate Training/ any other source | 20 | | |
| | Total | 20 | | |

| | | | | |
|--|---|-----------|--|--|
| | | | | |
| 3.6 | Extension Activities | | | |
| | No. of awards and recognition received for extension activities from govt./ recognized bodies | 5 | | |
| | Average percentage of teachers/staff participating in extension activities (Swatch Bharat, AIDS awareness, Gender Issues, Unnat Bharat etc.) through Extension and Outreach office/ NSS/ NCC/ Red Cross/ YRC/ Professional Society/ Student Society | 15 | | |
| | Average percentage of students participating in extension activities (Swatch Bharat, AIDS awareness, Gender Issues, Unnat Bharat etc.) through Extension and Outreach office/ NSS/ NCC/ Red Cross/ YRC/ Professional Society/ Student Society | 20 | | |
| | Total | 40 | | |
| 3.7 | Collaboration | | | |
| | No. of collaborative activities for Research, faculty exchange, student exchange per year | 5 | | |
| | No. of linkages with Institutions/ Industries for internship, on the job training, Project work, sharing of research facilities | 5 | | |
| | No. of functional MOUs with Institutions of National & International Importance/ Industry/ Corporate House/ Others | 10 | | |
| | Total | 20 | | |
| Any additional comments/feedback/ observations/advice which may or may not be based on above points: | | | | |

4. Infrastructure and Learning Resources (100)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|---|---|----------------|-----------------------|--------------|
| 4.1 | Physical Facilities | | | |
| | No of class rooms/tutorial (with AC/ Without AC) | 10 | | |
| | No of laboratories/research lab (with AC/ Without AC) | 10 | | |
| | No. of Faculty rooms/cabins | 5 | | |
| | No. of Seminar Room (with AC/ Without AC) | 5 | | |
| | Equipment available (Adequate as per curriculum) | 5 | | |
| | No. of Computing hardware facilities | 5 | | |
| | Class rooms furniture (Adequate quantity and quality) | 5 | | |
| | Laboratories furniture (Adequate quantity and quality) | 5 | | |
| | Total | 50 | | |
| 4.2 | Library as a learning resource | | | |
| | Departmental library | 15 | | |
| | No. of books/journal/e-books/e-resources purchased on department recommendation | 10 | | |
| | Total | 25 | | |
| 4.3 | IT infrastructure | | | |
| | Percentage of classrooms and Seminar rooms with ICT enabled facilities such as LMS/ Smart class | 10 | | |
| | Student/ Computer ratio | 10 | | |
| | Total | 20 | | |
| 4.4 | Expenditure on Physical Infrastructure augmentation | 05 | | |
| | Total | 05 | | |
| Any additional comments/feedback/ observations/ advice which may or may not be based on above points: | | | | |

5. Student Support and Progression (100)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|--------|--|----------------|-----------------------|--------------|
| 5.1 | Student support | | | |
| | Participation of students in capability enhancement and development schemes <ul style="list-style-type: none"> • Guidance for competitive examination • Career Counselling • Soft skill development • Remedial Coaching • Bridge courses • Yoga and Meditation • Personal Counselling | 20 | | |
| | Mechanism for timely redressal of student grievances including sexual harassment (Yes/ No) | 10 | | |
| | Total | 30 | | |
| 5.2 | Student progression | | | |
| | Average percentage of placement of outgoing students | 20 | | |
| | Percentage of student's progression to higher education | 10 | | |
| | Average percentage of students qualifying in State/ National/ International level of examinations (NET/SLET/GATE/GMAT/CAT/GRE/TOFEL/ Civil Services examination) | 10 | | |
| | Total | 40 | | |
| 5.3 | Student Participation and Activities | | | |
| | No. of awards/ medals for outstanding performance in sports/ cultural activities at National/ International level | 20 | | |
| | Extent of participation of Alumni in the affairs of the Department | 10 | | |
| | Total | 30 | | |
| | Any additional comments/ feedback/ observations/ advice which may or may not be based on above points: | | | |

6. Governance, Leadership and Management (100)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|--|---|----------------|-----------------------|--------------|
| 6.1 | Department Vision and Leadership | | | |
| | Vision, Mission and Quality Objective are prepared in a consultative manner and displayed prominently | 30 | | |
| 6.2 | Strategy development and deployment | | | |
| | Strategic Plan of the department is documented and implemented in timelines | 20 | | |
| 6.3 | Faculty Empowerment Strategies | | | |
| | Minutes of meeting of Faculty meetings, DPC, DRC, BOS are documented and maintained | 15 | | |
| | No. of welfare measures for Teaching and non-teaching staff (such as support for higher qualification) | 15 | | |
| | Average percentage of teachers provided with financial support to attend conferences/ workshops Orientation course/ FDP/ Refresher course/ STP and membership fee for professional bodies | 20 | | |
| | Total | 50 | | |
| Any additional comments/ feedback/ observations/ advice which may or may not be based on above points: | | | | |

7. Values and Best Practices (100)

| S. No. | Sub-parameter | Marks Assigned | Self-Assessment Score | Marks Scored |
|--|--|----------------|-----------------------|--------------|
| 7.1 | Department values & social responsibility | | | |
| | Participation in gender equity promotion programs | 5 | | |
| | Common room facility available | 10 | | |
| | Extent of green practices in the department | 10 | | |
| | Availability of resources for differently abled persons | 10 | | |
| | No. of specific initiative to address locational advantages and disadvantages | 5 | | |
| | Code of conduct handbook exist for students and teachers | 5 | | |
| | Core values are displayed in the department | 5 | | |
| | Department plans and organizes appropriate activities to increase consciousness about National identities, symbols, fundamental duties and rights of Indian Citizens | 5 | | |
| | Department follows approved Manual of official procedure Handbook? (yes/ no) | 5 | | |
| | Department observes complete transparency in its financial, academic, administrative and auxiliary functions | 10 | | |
| | No. of other best practices in the department (provide list) | 20 | | |
| | Describe one area where department is distinctive | 10 | | |
| | Total | 100 | | |
| Any additional comments/ feedback/ observations/ advice which may or may not be based on above points: | | | | |