### Academic Audit A.Y. 2022-23 Onwards

(For Departments offering Engineering, Management 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<br>Evaluation              | Max.<br>Marks | Self -Assessment<br>score | Marks<br>Scored |
|--------|--|---------------|---------------------------|-----------------|
| 1      | Curricular Aspects                       | 150           |                           |                 |
| 2      | Teaching Learning and Evaluation         | 200           |                           |                 |
| 3      | Research, Innovation & Extension         | 250           |                           |                 |
| 4      | Infrastructure & Learning<br>Resources   | 100           |                           |                 |
| 5      | Student Support &<br>Progression         | 100           |                           |                 |
| 6      | Governance, Leadership &<br>Management   | 100           |                           |                 |
| 7      | Institutional Values &<br>Best Practices | 100           |                           |                 |
|        | Total                                    | 1000          |                           |                 |

#### Grading System:

| Grade       | Details        | Total Marks scored |
|-------------|----------------|--------------------|
| A++         | Outstanding    | 880 - 1000         |
| A+          | Excellent      | 816 - 879          |
| Α           | Good           | 751 - 815          |
| <b>B</b> ++ | Average        | 691 - 750          |
| <b>B</b> +  | Acceptable     | 625 - 690          |
| В           | 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.    | Sub-parameter  | Marks    | Self-Assessment | Marks  |
|-------|--|----------|-----------------|--------|
| No.   |  | Assigned | Score           | Scored |
| 1.1.1 | Curricula content to provide understanding of  |          |                 |        |
|       | concepts of (with sufficient practical   |          |                 |        |
|       | exposure) (5 years data)   |          |                 |        |
|       | Basic curriculum components (basic science,  | 35       |                 |        |
|       | basic engineering, management & humanities,<br>computer skills, professional ethics, |          |                 |        |
|       | environment and human values, (Basic   |          |                 |        |
|       | Science, Humanities + Basic Engineering  |          |                 |        |
|       | Skills) Environment Science, Human Values  |          |                 |        |
|       |  |          |                 |        |
|       | Programme core, department elective, open  | 40       |                 |        |
|       | elective)  |          |                 |        |
|       | 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 appropriate new knowledge  |          |                 |        |
|       | systems (based on no. of BoS meeting)  |          |                 |        |
|       | Percentage of program where minor syllabus   | 5        |                 |        |
|       | revision was carried out   |          |                 |        |
|       | Percentage of program where major syllabus   | 5        |                 |        |
|       | revision was carried out   |          |                 |        |
| 1.1.4 | Average percentage of courses having focus   | 5        |                 |        |
|       | on employability/ Entrepreneurship/ skill  |          |                 |        |
|       | development/human values environment &   |          |                 |        |
|       | Sustainability   |          |                 |        |
|       | Total  | 115      |                 |        |

#### **1.2 Feedback and Corrective Action (35)**

| S.<br>No. | Sub-parameter  | Marks<br>Assigned | Self-Assessment<br>Score | Marks<br>Scored |
|-----------|--|-------------------|--------------------------|-----------------|
| 1.2.1     | Feedback   |                   |                          |                 |
| a)        | Student Feedback on design and review of Syllabus                                    | 4                 |                          |                 |
| b)        | Faculty Feedback on design and review of Syllabus                                    | 4                 |                          |                 |
| c)        | Employer's feedback on design and review of Syllabus                                 | 4                 |                          |                 |
| d)        | Alumni Feedback on design and review of Syllabus                                     | 4                 |                          |                 |
| e)        | Parent's feedback on design and review of Syllabus                                   | 4                 |                          |                 |
| 1.2.2     | Student Feedback at the end of semester<br>(Overall impression reported by students) | 5                 |                          |                 |

| 1.2.3  | Exit Survey at the end of program                                    | 5            |  |
|--|--|--------------|--|
|  |  |              |  |
| 1.2.4  | Corrective action taken by department for point 1.2.1, 1.2.2 & 1.2.3 | 5            |  |
|  | Total  | 35           |  |
| Any additional comments/feedback/observations/advice which may not be based on above points: |  | which may or |  |
|  |  |              |  |

### 2. Teaching - Learning Process and Evaluation (200)

#### 2.1 Student Enrolment and Profile (30)

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

#### **2.2 Faculty Profile (40)**

| S. No. | Sub-parameter   | Marks<br>Assigned | Self-Assessment<br>Score | Marks<br>Scored |
|--------|---|-------------------|--------------------------|-----------------|
| a)     | Average percentage of regular teachers against sanctioned post  | 9                 |                          |                 |
| b)     | Average percentage of regular teachers<br>from other states/ countries against<br>sanctioned post   | 5                 |                          |                 |
| C)     | Average percentage of regular teachers with PhD degree  | 5                 |                          |                 |
| d)     | Teaching Experience per regular teacher in no. of years   | 5                 |                          |                 |
| e)     | Percentage of Regular teachers who<br>received awards, recognition,<br>fellowship at State/ National/<br>International Level from Govt./<br>recognized bodies/ Regulatory bodies<br>of state/Central Govt. other than DTU | 4                 |                          |                 |
| f)     | Percentage of teachers using the ICT for effective teaching with LMS/ERP  | 4                 |                          |                 |
| g)     | E-content developed by Faculty for e-<br>PG Pathshala / CEC (UG)/ SWAYAM/<br>MOOCs platform/ NPTEL/ NMEICT/<br>Moodle/ any other  | 4                 |                          |                 |
| h)     | 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<br>Assigned | Self-Assessment<br>Score | Marks<br>Scored |
|--------|---|-------------------|--------------------------|-----------------|
| 2.3.1  | Theory lectures   |                   |                          |                 |
|        | Average % of lectures conducted   | 10                |                          |                 |
|        | Percentage of courses for which course<br>file consisting of teaching plan,<br>execution plan etc. available and<br>updated                         | 10                |                          |                 |
| 2.3.2  | Practical   |                   |                          |                 |
|        | Average % of practical conducted<br>compared with that minimum required<br>as per curriculum:   | 10                |                          |                 |
|        | Availability of laboratory manual   | 5                 |                          |                 |
|        | Maintenance of laboratory equipment<br>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<br>improve performance of academically<br>weaker students through remedial<br>classes                                | 6                 |                          |                 |
| 2.3.7  | Efforts taken by Department to<br>improve overall performance of<br>students including Quality<br>Circle/Courses conducted/ Expert<br>lectures etc. | 5                 |                          |                 |
|        | Total   | 60                |                          |                 |

#### 2.4 Examination System (40)

| S. No. | Sub-parameter  | Marks<br>Assigned | Self-Assessment<br>Score | Marks<br>Scored |
|--------|--|-------------------|--------------------------|-----------------|
| 2.4.1  | Examination Process  |                   |                          |                 |
|        | Transparency in the processes like<br>internal assessment; scrutiny and<br>declaration of result | 10                |                          |                 |
|        | Appropriate weight-age for continuous<br>evaluation and end semester<br>examination.             | 10                |                          |                 |
| 2.4.2  | Quality of MSE/ETE Question Papers   | 20                |                          |                 |
|        | Total  | 40                |                          | 1               |

#### 2.5 Students Performance and Learning Outcomes (30)

| S.<br>No. | Sub-parameter   | Marks<br>Assigned | Marks<br>Scored |
|-----------|---|-------------------|-----------------|
| 2.5.1     | Student Performance in Exam   | libbightu         |                 |
|           | 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<br>Outcomes and Course Outcomes for all<br>programs offered by the department are<br>stated and displayed on the prominent<br>places including Website,<br>communicated to teachers and students | 8                 |                 |
|           | Percentage of Programs for which<br>Attainment of Program Outcomes,<br>Program specific Outcomes and Course<br>Outcomes are calculated.   | 6                 |                 |
|           | Total   | 30                |                 |
|           | additional comments/feedback/<br>ations/advice which may or may not be<br>on above points:  |                   |                 |

### 3. Research, Innovation and Extension (250)

| S. N. | Sub-parameter                             | Marks<br>Assigned | Self-Assessment<br>Score | Marks<br>Scored |
|-------|---|-------------------|--------------------------|-----------------|
| 3.1   | Promotion of Research & Facilities        |                   |                          |                 |
|       | Average seed money provided to            | 5                 |                          |                 |
|       | faculty per year for research             |                   |                          |                 |
|       | No. of teachers awarded international     | 5                 |                          |                 |
|       | fellowship for advance study/ research    |                   |                          |                 |
|       | No. of JRF/ SRF/ PDF/ RA and other        | 5                 |                          |                 |
|       | research fellows enrolled in the          |                   |                          |                 |
|       | Department                                |                   |                          |                 |
|       | Recognition of department from UGC-       | 5                 |                          |                 |
|       | SAP, CAS, DST-FIST, DBT, ICSSR or         |                   |                          |                 |
|       | any other similar Govt. agency            |                   |                          |                 |
|       | Total                                     | 20                |                          |                 |
| 3.2   | <b>Resource Mobilization for Research</b> |                   |                          |                 |
|       | Grants for research received from Non-    | 5                 |                          |                 |
|       | govt. sources such as Industry,           |                   |                          |                 |
|       | International bodies, endowments,         |                   |                          |                 |
|       | Chairs in the institution                 |                   |                          |                 |
|       | Grants for research received from Govt.   | 10                |                          |                 |
|       | sources                                   |                   |                          |                 |
|       | No. of research projects per teacher      | 5                 |                          |                 |
|       | (funded from outside University)          |                   |                          |                 |
|       | Total                                     | 20                |                          |                 |
| 3.3   | Innovation Eco system                     |                   |                          |                 |

|     |   |     | 1        |  |
|-----|---|-----|----------|--|
|     | No. of award for innovation won by      | 15  |          |  |
|     | department/ faculty/ student/PSU        |     |          |  |
|     | statuary /Regulatory Govt.              |     |          |  |
|     | Bodies/Central/NGO/Industry             |     |          |  |
|     | No. of Start-ups incubated in DTU/      | 15  |          |  |
|     | outside incubators by the department/   |     |          |  |
|     | faculty/ student                        |     |          |  |
|     | Total                                   | 30  |          |  |
| 3.4 | <b>Research Publication and Awards</b>  |     |          |  |
|     | No. of patents published/ granted       | 20  |          |  |
|     | No. of PhDs awarded per teacher         | 20  |          |  |
|     | No. of Research papers per teacher in   | 25  |          |  |
|     | indexed Journals (SCOPUS/ SCI/ SCIE/    |     |          |  |
|     | Web of Science)                         |     |          |  |
|     | No. of Books Chapters in edited         | 5   |          |  |
|     | Volumes per teacher                     | -   |          |  |
|     | No. of Books Published per teacher      | 10  |          |  |
|     | No. of Papers published in National/    | 10  |          |  |
|     | International Conference Proceedings    |     |          |  |
|     | Average h-index of the department as    | 5   |          |  |
|     | per SCOPUS/ Web of Science              | 5   |          |  |
|     | Average citation index of the           | 5   |          |  |
|     | department as per SCOPUS/ Web of        |     |          |  |
|     | Science/ Indian Citation Index          |     |          |  |
|     | Total                                   | 100 |          |  |
| 3.5 | Consultancy                             |     |          |  |
|     | Revenue generated from Consultancy/     | 20  |          |  |
|     | from Corporate Training/ any other      |     |          |  |
|     | source                                  |     |          |  |
|     | Total                                   | 20  |          |  |
| 3.6 | Extension Activities                    |     |          |  |
|     |   | 10  |          |  |
|     | No. of awards and recognition received  | 10  |          |  |
|     | by teacher & Students for extension     |     |          |  |
|     | activities in the neighbourhood         |     |          |  |
|     | communities in terms of impact &        |     |          |  |
|     | Sensitizing students to social issues & |     |          |  |
|     | Holistic development from govt./        |     |          |  |
|     | recognized bodies                       | 15  | <u> </u> |  |
|     | Average percentage of teachers/staff    | 15  |          |  |
|     | 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/clubs/organization of           |     |          |  |
|     | conferences/Seminars / conclaves etc.   |     |          |  |
|     | (Not covered in point 2.3.7)            | 1.7 |          |  |
|     | Average percentage of students          | 15  |          |  |
|     | participating in extension activities   |     |          |  |
|     | (Swatch Bharat, AIDS awareness,         |     |          |  |
|     | Gender Issues, Unnat Bharat etc.)       |     |          |  |
|     | through Extension and Outreach office/  |     |          |  |
|     | NSS/ NCC/ Red Cross/ YRC.               |     |          |  |
|     | Total                                   | 40  |          |  |
|     | 10131                                   |     |          |  |
| 3.7 | Collaboration                           | 40  |          |  |

|  | No. of collaborative activities for<br>Research, faculty exchange, student<br>exchange per year  | 5  |  |
|--|--|----|--|
|  | No. of linkages with Institutions/<br>Industries for internship, on the job<br>training, Project work, sharing of<br>research facilities | 5  |  |
|  | No. of functional MOUs with<br>Institutions of National & International<br>Importance/ Industry/ Corporate House/<br>Others              | 10 |  |
|  | Total  | 20 |  |
| Any additional comments/feedback/<br>observations/advice which may or may not be<br>based on above points: |  |    |  |

## 4. Infrastructure and Learning Resources (100)

| S.<br>No. | Sub-parameter   | Marks Assigned | Self-Assessment<br>Score | Marks<br>Scored |
|-----------|---|----------------|--------------------------|-----------------|
| 4.1       | Physical Facilities   |                |                          |                 |
|           | No of class rooms/tutorial (with AC/ Without AC)  | 10             |                          |                 |
|           | No of laboratories/research lab<br>(with AC/ Without AC)  | 10             |                          |                 |
|           | No. of Faculty rooms/cabins   | 5              |                          |                 |
|           | No. of Seminar Room (with AC/<br>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  | 10             |                          |                 |
|           | No. of books/journal/e-books/e-<br>resources purchased on<br>department recommendation                | 15             |                          |                 |
|           | Total   | 25             |                          |                 |
| 4.3       | IT infrastructure   |                |                          |                 |
|           | Percentage of classrooms and<br>Seminar rooms with ICT enabled<br>facilities such as LMS/ Smart class | 10             |                          |                 |
|           | Student/ Computer ratio   | 10             |                          |                 |
|           | Total   | 20             |                          |                 |

| 4.4 | Expenditure on Physical<br>Infrastructure augmentation                     | 05                   |  |
|-----|--|----------------------|--|
|     | Total  | 05                   |  |
| -   | additional comments/feedback/ observator may not be based on above points: | ations/ advice which |  |

### 5. Student Support and Progression (100)

| S.  | Sub-parameter   | Marks Assigned | Self-Assessment | Marks  |
|-----|---|----------------|-----------------|--------|
| No. | Sus parameter   |                | Score           | Scored |
| 5.1 | Student support   |                | Score           | Scorea |
|     | <ul> <li>Participation of students in capability enhancement and development schemes</li> <li>Career Counselling and Guidance for competitive examination</li> <li>Soft skill development Remedial Coaching Bridge courses</li> <li>Language and communication</li> <li>Life Skills (Yoga and Meditation Health's &amp; Hygiene)</li> <li>Personal Counselling Awareness of trends and</li> </ul> | 20             |                 |        |
|     | technology  |                |                 |        |
|     | Mechanism for timely redressal<br>of student grievances including<br>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<br>studentsqualifying in State/<br>National/International level of<br>examinations<br>(NET/SLET/GATE/GMAT/C<br>AT/GRE/TOFEL/ Civil<br>Servicesexamination etc.)   | 10             |                 |        |
|     | Total   | 40             |                 |        |
| 5.3 | Student Participation and<br>Activities   |                |                 |        |
|     | No. of awards/ medals for<br>outstanding performance in<br>sports/ cultural activities at inter-  | 20             |                 |        |

|        | university/State/National/<br>International level  |    |  |
|--------|--|----|--|
|        | Extent of participation of Alumni<br>in the affairs of the Department                        | 10 |  |
|        | Total  | 30 |  |
| observ | additional comments/ feedback/<br>rations/ advice which may or may<br>based on above points: |    |  |

### 6. Governance, Leadership and Management (100)

| S.    | Sub-parameter                   | Marks Assigned | Self-Assessment | Marks Scored |
|-------|---------------------------------|----------------|-----------------|--------------|
| No.   |                                 |                | Score           |              |
| 6.1   | Department Vision and           |                |                 |              |
|       | Leadership                      |                |                 |              |
|       | Vision, Mission and Quality     | 20             |                 |              |
|       | Objective are prepared in a     |                |                 |              |
|       | consultative manner and         |                |                 |              |
|       | displayed prominently           |                |                 |              |
| 6.2   | Strategy development and        |                |                 |              |
|       | deployment                      |                |                 |              |
|       | Strategic Plan of the           | 30             |                 |              |
|       | department is documented and    |                |                 |              |
|       | implemented in timelines        |                |                 |              |
| 6.3   | Faculty Empowerment             |                |                 |              |
|       | Strategies                      |                |                 |              |
|       | Provision of welfaremeasures    | 10             |                 |              |
|       | forTeaching and non-teaching    |                |                 |              |
|       | staff (such as support for      |                |                 |              |
|       | higher qualification),          |                |                 |              |
|       | Financial support to attend     |                |                 |              |
|       | conferences/workshop            |                |                 |              |
|       | Average number of               | 20             |                 |              |
|       | professional                    |                |                 |              |
|       | development/administrative      |                |                 |              |
|       | training Programmes             |                |                 |              |
|       | organized by the                |                |                 |              |
|       | institute/Department for        |                |                 |              |
|       | teaching and non-teaching       |                |                 |              |
|       | staff during the current cycle* |                |                 |              |
|       | (Current academic year also)    | 20             |                 |              |
|       | Average percentage of           | 20             |                 |              |
|       | teachers provided with          |                |                 |              |
|       | financial support to attend     |                |                 |              |
|       | conferences/ workshops          |                |                 |              |
|       | Orientation course/ FDP/        |                |                 |              |
|       | Refreshercourse/ STP and        |                |                 |              |
|       | membership fee for              |                |                 |              |
|       | professional bodies             | 100            |                 |              |
| A .:  | Total                           | 100            |                 |              |
|       | additional comments/ feedback/  |                |                 |              |
| which | may or may not be based on abov | e points:      |                 |              |

### 7. Values and Best Practices (100)

| S.<br>No. | Sub-parameter  | Marks Assigned   | Self-Assessment<br>Score | Marks Scored |
|-----------|--|------------------|--------------------------|--------------|
| 7.1       | Department values & social responsibility  |                  | Store                    |              |
|           | Participation in gender equity promotion programs  | 5                |                          |              |
|           | Common room facility available   | 10               |                          |              |
|           | Extent of green practices in the<br>department, (Paperless office/e-<br>communication/ switch of lights of<br>room/labs/room/no plastic/plantation<br>drive)                     | 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<br>appropriate activities to increase<br>consciousness about National identities,<br>symbols, fundamental duties and rights of<br>Indian Citizens | 5                |                          |              |
|           | Department follows approved Manual of official procedure Handbook? (yes/ no)   | 5                |                          |              |
|           | Department observes complete<br>transparency in its financial, academic,<br>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              |                          |              |
|           | dditional comments/ feedback/ observations/<br>y not be based on above points:   | advice which may |                          |              |