COURSES OF STUDY 2025-26

UG Programme Rules

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Indian Institute of Technology Delhi

COURSES OF STUDY
2025-2026

UNDERGRADUATE PROGRAMME RULES

INDIAN INSTITUTE OF TECHNOLOGY DELHI
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1. UNDERGRADUATE DEGREE REQUIREMENTS, REGULATIONS AND PROCEDURES

1.1 Overall Requirements

1.1.1 B.Tech. and B.S.

The total credit requirement for the B.Tech. and B.S. (4-year programmes) is 142-155 credits. Broad breakup of credit requirement is given in table below. Detailed breakup for individual branches are given in courses.iitd.ac.in/programs.

Table 1.1 : Degree Requirements of B.Tech. and B.S. Programmes

	Category	Symbol	Credits	Remarks
1	Basic Sciences	BS	24	Courses in Mathematics, Physics, Chemistry, and Biology
2	General Engineering	GE	24	Courses in Mechanical Sciences, Electrical Sciences, and Computational or Data Sciences
3	Departmental core	DC	70-86	Discipline specific
4	Departmental Elective	DE		
5	Open Category	OC	9	Open to student's choice
6	Humanities and Self, Society and the World	HS and SSW	15	Minimum 9 Credits from HS courses and Minimum 3 Credits from SSW Courses (Discipline specific)
7	Non-graded Core	NG	8 units	See Sec. 1.3
	Total	***142-155 Credits +8 Non-graded units***		

1.1.2 B.Des.

The total credit requirement for the B.Des. (4-year programme) is 143 credits, Broad breakup of credit requirement is given in table below. Detailed breakup for individual branches is given in courses.iitd.ac.in/programs.

Table 1.2: Degree Requirements of B.Des. Programme

	Category	Symbol	Credits	Remarks
1	Humanities	HS	3	
2	Departmental core	DC	113	
3	Departmental Elective	DE	15	
4	Open Category	OC	12	Open to student's choice
5	Non-graded Core	NG	4 Units	Social Immersion
	Total	***143 Credits + 04 Non-graded units***		

The minimum and maximum number of registered semesters for graduation are listed in Table 1.5.

1.1.3 Dual degree programmes

The total credit requirements for the dual degree programmes are 178-200. Broad breakup of credit requirement is given in table 1.3. Detailed breakup for individual branches is given in courses.iitd.ac.in/programs.

Table 1.3 : Degree Requirements of Dual Degree Programmes

	Category	Symbol	Credits	Remarks
1	Basic Sciences	BS	24	Courses in Mathematics, Physics, Chemistry, and Biology
2	General Engineering	GE	24	Courses in Mechanical Sciences, Electrical Sciences, and Computational or Data Sciences
3	Departmental core	DC	61-77	Based on corresponding B.Tech. program, less 9 credits: 6 credits DE and BTP1/ Capstone removed
4	Departmental Elective	DE		
5	Programme core	PC	45-51	Based on corresponding M.Tech. program, less 6 credits: 6 credits of foundational PC courses removed. Includes internship/minor-project.
6	Programme Elective	PE		
7	Open Category / Open Elective	OC / OE	9	Open to student's choice. OE cannot be more than 6.
8	Humanities and Self, Society and the World	HS and SSW	15	Minimum 9 Credits from HS courses and Minimum 3 Credits from SSW Courses (AU specific)
9	Non-graded Core	NG	8 units	See Sec. 1.2
	Total	***178-200 Credits +8 Non-graded units***		

1.1.4 Early Exit

On completion of 34 credits (18 BS, 12 GE, 4 DC), students will be eligible for a Certificate of IIT Delhi. After completion of 72 credits (including 24 BS, 18 GE, 21 DC), they become eligible for an Associate of IIT Delhi. After completion of 108 credits (including 24 BS, 24 GE and a minimum of 36 credits of DC / DE), they become eligible for an Intermediate Bachelor of Technology of IIT Delhi. If they complete 46 DC / DE credits, they are eligible for an Intermediate Bachelor of Technology Degree in the Discipline. The names of the certificates and exit degrees (Certificate of IIT Delhi, Associate of IIT Delhi, and Intermediate Bachelor of Technology) are not final and may be modified. This exit policy is applicable to both B.Tech. and Dual-degree entrants.

1.2 Non-graded Core Requirement

As part of the curriculum, non-graded units have been prescribed as core requirements for the undergraduate degree. These units can be earned through a combination of formal academic activities and informal co-curricular or extra-curricular activities. The components of non-graded core requirement are listed in Table 1.4.

Table 1.4: Components of Non-Graded Core Requirement for B.Tech., B.S., and Dual Degree*

	Components	Minimum NGUs for Graduation	Maximum Countable Towards Total of 8 NGUs
1	Life Skills	2	2
2	Language and Writing Skills	2	2
3	NCC / NSO / NSS	1	2
4	Design and Practical Experience	2	3
	Total	***8***	

*NGU in case of B.Des. programme: Social Immersion (4 Units)

A brief description of the four components is given below. For complete details, please refer to Section 2 for details.

(a) Life Skills (2 units)

The courses will involve workshops on various aspects such as Institute Awareness, Vision / Career / Goal Setting, Self Awareness, Time / Stress / Self-Management, Study Skills and Learning Styles, Digital Wellness, Online Safety and AI, Understanding Diversity, Emotional Intelligence, Responsible / Ethical Choices, Academic Honesty and Professional Ethics, Leadership Skills, Sustainability, Creative Thinking, Substance Abuse, and Self and Society. All students will be required to register for this course for earning 0.75 unit in the first semester, 0.75 unit in the fourth semester, and 0.5 units over second and third semesters.

(b) Language and Writing Skills (2 units)

All students will be required to participate in Task-Based Language Learning (TBLL) exercises in the first year through two core courses. These language games are designed to enhance their linguistic capabilities in comprehension, both reading and listening, as well as improve their ability to structure and compose ideas in spoken and written communication. Wherever necessary, principles of English Grammar will be discussed along with the nuances of technical writing. The Language Needs of a particular class of students will be assessed through an initial language test at the beginning of the first semester. Then, the exercises will be tailored according to the specific language needs of the particular class of students. These exercises could be scheduled during normal academic hours or outside. Based on the performance and regularity, a student may be prescribed additional self-learning exercises and practice sessions during vacations as well, as requirement for securing an 'S' grade.

(c) NCC / NSO / NSS (Minimum 1 and Maximum 2 units)

NCC / NSO / NSS also form part of the core requirement of the degree. Students will be required to earn at least 1 unit from these activities involving 40 hours of work and a maximum of 2 units for 80 hours of work towards the total NGU requirement.

(d) Design and Practical Experience (Minimum 2 and Maximum 3 units)

The objective of this non-graded core requirement component is to give opportunities to students to acquire substantial design and practical experience both as a part of formal courses as well as in an informal setting. Second and even more important objective of this course is to inculcate design thinking among students and facilitate gaining some design immersion experience. Design and Practical Experience (DPE) component is introduced to promote learning by doing which does two important things: it allows students to immerse themselves in the environment in which work is to be done, so that they can understand the values and expectations of the target beneficiaries. Secondly, it enables a fresh look at problems, not only at the ways of defining them, but also at the ways to solve those including skill-sets that are required to address them. A shift from problem-based learning (acquisition of knowledge) to project-based learning (application of knowledge), where the projects are grounded in problems outside the classrooms and labs in everyday scenarios, will involve students in reality, and reality in education. Design and Practical Experience bridges division between the curricular and the co-curricular and encourages curiosity and involvement that arise out of total absorption in a subject of interest. Non-graded units in Design and Practical Experience can be earned through one or more of the following:

- Specialized Elective Courses related to Design and Practical Experience (Maximum 2 Units)
- Regular Courses with optional Design and Practical Experience Component (Maximum 2 Units)
- Summer / winter / semester / SURA / DISA projects with Institute faculty, not evaluated for earning credits (Maximum 2 units)
- Co-curricular projects such as Robocon, SAE-minibaja, etc. (Maximum 2 Units)
- Summer Internships with Industry (Maximum 2 Units)
- One Semester Internship (Maximum 5 Units)
- Workshop Module on Design and Practical Experience offered by Faculty / Visitors (1 Unit each)

1.3 Minimum and Maximum Durations for Completing Degree Requirements

(a) The minimum and maximum permitted duration of each academic programme will be determined in terms of number of registered regular semesters, hereinafter called registered semesters. Any semester in which a student has registered for a course will be called a registered semester subject to the following:

(i) Only the First and Second semesters of an academic year can be registered semesters. The summer semester will not be counted as a registered semester.

(ii) A semester when a student has been granted semester withdrawal or granted semester leave will not be considered as a registered semester.

(iii) The semester when a student is suspended from the Institute on disciplinary grounds will not be counted towards the number of registered semesters.

(iv) A semester in which a student is allowed by the Institute to undergo semester - long internship will be counted as a registered semester.

The summer semesters shall normally be available for earning credits. However, after the student has registered for the maximum permissible number of registered semesters, the subsequent summer semesters will not be available for earning credits.

(b) The minimum and maximum permissible number of registered semesters for completing all degree requirements are defined in Table 1.5.

Table 1.5: Minimum and Maximum registered semester for completing degree requirements.

	Programme	Minimum	Maximum
1	B.Tech./B. Des./B.S.	8	12*
2	Dual Degree	10	14*
	*If a student opts for the slow-paced programme, then the maximum permissible number of registered semesters shall be increased by two semesters.		

1.4 Absence During the Semester

(a) A student must inform the programme coordinator, HOD, and Dean, Academics immediately of any instance of continuous absence from classes.

(b) A student who is absent due to illness or any other emergency, up to a maximum of two weeks, should approach the course coordinator for make-up quizzes, assignments and laboratory work.

(c) A student who has been absent from a mid-semester exam due to illness should inform the course coordinator before the exam, raise a request on ERP for a make-up exam, and approach the course coordinator for a make-up test immediately on return to class. The request should be supported with a medical certificate from Institute's medical officer. A certificate from a registered medical practitioner will also be acceptable for a student normally residing off-campus provided registration number of the medical practitioner appears explicitly on the certificate.

(d) In case a student misses a mid-semester exam on the same day on which they have appeared in another exam, a medical certificate from the institute's medical officer must be submitted.

(e) In case of absence on medical grounds or other special circumstances, before or during the major examination period, the student can apply for 'I' grade. At least 75% attendance in a course is necessary for being eligible for request of 'I' grade in that course. An application requesting I-grade should be made at the earliest but not later than the last day of major tests. An online application should be made by the student. On submission of a medical certificate/Dean's permission, the Academic Section verifies the certificate and forwards the request to the concerned course coordinator. The course coordinator verifies the attendance requirement and forwards the application to the Head of the Department/Centre/School of the student's programme. Head's approval is contingent upon the satisfaction of attendance requirement. On approval, an 'I' grade is awarded to the student. All evaluation requirements for students with 'I' grade should be completed before the end of the first week of the next semester. Upon completion of all course requirements, the 'I' grade is converted to a regular grade (A to F, NP or NF, S or Z, and P or R).

(f) In case the period of absence on medical grounds is more than 20 working days during the semester, a student may apply for withdrawal from the semester, i.e. withdrawal from all courses registered that semester. Such application must be made as early as possible and latest before the start of the major tests. No applications for semester withdrawal will be considered after the major tests have commenced. Dean, Academics, depending on the merit of the case, will approve such applications. Partial withdrawal from courses registered in a semester is not allowed.

(g) If a student is continuously absent from the institute for more than four weeks without notifying the Dean Academics, their name will be removed from institute rolls.

1.5 Conditions for Continuation of Registration, Termination / Re-start, Probation and Warning

During the first two registered semesters of an undergraduate (B.Tech. / Dual Degree / B.S.) programme, a student is registered for a total of 34 credits, besides non-graded units. In case of B.Des. programme, a student is registered for a total of 36 credits. By the end of the first two registered semesters, not including summer, a student is expected to earn a minimum number of credits (excluding non-graded units) as specified in Table 1.6. If a student does not meet this criterion, their performance is classified as "Poor Performance", and they may opt to start the programme afresh. This option to re-start the programme is available to a student only once.

Table 1.6: Criteria for continuation at the end of second registered semester

Description	Earned Credits (excluding non-graded units)		Decision
	GE / OBC / EWS	**SC / ST / PwD**	
Continuation	≥23	≥19	
Poor Performance	≤ 22	≤ 18	Optional Restart (Once only)

(a) The previously earned credits of a student, who chooses the restart option after the first two registered semesters, will not carry over. The re-start will be indicated on the transcript. The re-start will be permitted only once.

(b) Each student is expected to earn at least 12 credits in each registered semester. If the earned credit at the end of any registered semester is below this minimum acceptable level, then they will be placed on probation, a warning shall be given to them and intimation sent to the parents. The probation rules also apply to restart students. A student cannot reduce their load below 12 credits during course withdrawal period.

(c) A student placed on probation shall be monitored, including mandatory attendance in classes, special tutorials and mentoring. Mentoring would comprise structured guidance under a senior / postgraduate student.

(d) If the performance of a student on probation does not meet the criterion in item (b) in the following registered semester, then the student would face termination, and will be permitted to register by the Dean, Academics only if the department makes a favourable recommendation. The Head of the Department's recommendation shall be prepared after consultation with the student, and should include (i) feasibility of completing the programme requirements, and (ii) identification of remedial measures for the problems leading to poor performance.

(e) A student on probation can register up to 18 credits in a semester. This can be relaxed in 8^{th} /10^{th} or later registered semester for B.Tech. / B.Des. / B.S. / Dual Degree students, respectively. To allow a student to register for less than 12 credits in exceptional cases, approvals from the faculty advisor, the Head of the Academic Unit, and the Dean Academics will be needed with the reasons thereof recorded.

Slow-paced Programme

(a) If a student has earned the minimum credits specified in Table 1.8 for continuation but has less than 28 Earned Credits at the end of the first two registered semesters, they will be eligible to opt for the slow-paced programme. A student opting for such a programme shall be permitted two additional registered semesters for completing degree requirements as indicated in Table 1.5.

(b) In the slow paced programme, the upper limit for credits registered in a semester will be 18. A student in this programme is expected to earn at least 9 credits, falling which they will be issued a warning and placed on probation.

(c) The semester-wise schedule of the slow-paced programme shall be defined by the respective department for each student.

1.6 Academic Advising

Regular Students

(a) There is a class committee for each entry year of all programmes. The class committee is responsible for providing consistent and uniform academic advice to the entire batch of students.

(b) Class committee shall consist of a Chairperson, at least two faculty members of the department (one of them will function as Convenor of the class committee) and elected student representatives (as per CAIC constitution) including a student coordinator. All student coordinators of courses intended for the batch in a given semester and special advisors of academically weak students will be permanent invitees to the class committee. The faculty members in the class committee would be referred to as Faculty Mentors for the batch.

(c) A Chairperson appointed for each entry year of students by the Head of the Department shall be associated with the batch till it graduates and will provide basic guidance for formulating course plan and electives for the students of the batch.

(d) The Convenor of a class committee will be appointed in a year-specific fashion: for example, the Convenor of the second year class committee would continue in the same position for 3 years, serving consecutive batches.

(e) Students can approach any class committee member for academic advice before registration. In other words, all the three members of the class committee will have the functional role of mentor and local guardian for all the students. In case of need for any exception and relaxation in rules or regulations pertaining to registration of courses, the class committee Convenor will recommend and forward the request.

(f) The faculty members of the committee in consultation with the elected representatives of the students will provide academic advice applicable to all the students in general. The class committee is also expected to discharge following responsibilities:

  (i) Considering mid-semester feedback about courses running in the current semester.

  (ii) Identifying electives for the subsequent semester.

  (iii) Addressing issues related to scheduling and categorization of courses.

  (iv) Organizing Student-Teacher Interaction Council (STIC) events for the batch.

(g) The Class Committee Convenor with the support of student coordinator will organize at least one STIC event in each semester for interaction between class committee members and all the students of the batch.

(h) The Chairman, Convenor and the other faculty members of first year class committee would be identified by the department prior to the orientation of new students. During orientation, students and their parents will be introduced to these class committee members.

Special Scheme (Academic Progress Group)

(a) The students on probation in each batch will be put under a special advisor, identified by the department, who is expected to monitor the students on probation in a personalized manner. Normally, not more than 5-8 students would be assigned to a special advisor. Heads of Departments will appoint special advisors at the beginning of an academic session.

(b) The special advisors and the students on probation will report to the academics progress group (APG).

(c) A student on probation is expected to be in close contact with the advisor by meeting him / her at least once every 3 weeks for the entire period during which the student continues to remain in probation. Special advisors will be invitees to the class committee meetings.

(d) Special advisor in consultation with the parents and student counsellor, if required, will make a student-specific academic plan. The special advisor is expected to:

- Closely interact with the weak student and their parents
- Formulate individualized academic plan
- Manage and track counselling process of the student, if any, in coordination with the Associate Dean, Student Welfare.
- Approve their registration
- Manage the recommendation / appeal for termination / continuation process in consultation with Head of the Department and Dean, Academics.

(e) At the time of registration for a semester, the student meets their advisor if possible with parents, to:

- Identify specific problems and ways to mitigate the same
- Formulate academic plan and target(s) for the semester
- Help Head of the Department in the processing of the student's appeal against termination, if applicable
- Approve the registration of the student online.

(f) The student being placed under probation for the first time may also meet the counsellor during this period, if needed. The counsellor can provide professional help in identifying to resolving problems. Counsellors' input will be available to the special advisor. During the add-drop period, the student, preferably along with his / her parents, should come and meet the Counsellor.

(g) While considering any appeal from an academically weak student for continuation of his registration, the Dean, Academics would consider the following:

(i) whether they have met their Advisor and Counsellor at the scheduled times on a regular basis and

(ii) whether they are regular in help sessions.

Registration of a student under probation will not be approved for the next semester if they do not comply with the process of meeting the advisor and counsellor. They will then be required to withdraw from the semester.

(h) A student on probation will not be permitted to contest for any position of responsibility. However, they will be permitted to participate in extra-curricular activities in a restricted fashion only on specific recommendation of their advisor.

An Institute level committee known as the Academic Progress Group (APG) would monitor the entire operation of academic advising for weak students. The final recommendations regarding termination / continuation, restarting first year, and slow-paced programme requests are handled by the Institute Welfare Committee.

A summary of the weak student's performance would be made available to the class committee members, Head of the student's Department as well as Course Coordinators of the courses in which the student is currently registered.

Student Mentors

(a) Each student will be assigned a student mentor from the same hostel and preferably from the same discipline to mentor students on academic and extra-curricular activities and provide feed-back to the advisor and counselor in case of weak students.

(b) There are individual incentives for good student mentors. Also, hostels performing well on mentoring benefit in terms of points towards BSW trophy.

1.7 Capability Linked Opportunities

A student registering for 24 credits in each semester after first year and 26 in two semesters can complete a maximum of 182 credits. Since the graduation requirement for 4-year B.Tech. programmes varies between 142-155 earned credits, it will be feasible for capable students to add value to their degrees by registering for additional courses of their choice.

Students can make use of these additional credits to opt for:

(a) Minor / Interdisciplinary Area Specialization

(b) Departmental Specialization

(c) Honors Program

Table 1.7 provides information about some of the Minor Area / Interdisciplinary / Departmental Specializations offered at IIT Delhi. Successful completion of minor area credits and / or departmental Specialization will be indicated on the degree.

When a student opts for a departmental specialization and / or a minor area, they can use 9 open category credits (mandatory degree requirement) towards departmental specialization and / or minor area requirements. For example, a student registered for B.Tech. (Chemical Engineering) and opting for minor area in Computer Science and Engineering, can opt for courses prescribed for minor area in Computer Science and Engineering, as part of mandatory 9 credits requirements under OC. They will need to do additional 11 credits in the minor area to be eligible for Minor area specialization in the degree.

A student may not opt for either of the two but can do additional credits through open choice of courses. In case a student cannot meet requirements of a minor area or departmental Specialization, additional credits earned by the student over and above their degree requirement will be used for DGPA calculation and will be indicated on their transcript.

A set of pre-defined courses of total 20 credits in a focus area comprises a Departmental Specialization if the courses belong to the parent Department of an undergraduate programme, or a Minor / Interdisciplinary Area Specialization if the courses belong to a different Department / Centre / School.

If any course of a Minor / Interdisciplinary area overlaps with any core course (DC or PC category courses) or elective course (DE or PE category courses) of the student's programme, then credits from this course will not count towards the minor area credit requirements, though this course may contribute towards satisfying the requirement of the Minor / Interdisciplinary area. In such a case, the requirement of 20 credits must be completed by taking other courses of the specialization.

The maximum number of credits per semester may be relaxed up to 28 by Dean, Academics for those students who apply for capability-linked option through proper channel.

B.Tech. with Honours

The honours program is to encourage students to remain in the core domain. As such, there is no minimum CGPA criteria. An additional 18 credits in the department will enable a student to graduate with honours. Programs could offer a 12-credit B.Tech. Project-2 (BTP2) course as an option to satisfy the 18 credits-requirement. Note that BTP2 may only be utilized by students in the honours program and it will not satisfy ordinary DE credits.

Table 1.7: Programmes for Minor Area / Interdisciplinary / Departmental Specialization

Programme	Department/Centre/School
Departmental Specialization in Communication Systems and Networking	Electrical Engineering, Department of
Departmental Specialization in Software Systems	Computer Science and Engineering, Department of
Departmental Specialization in Theoretical Computer Science	Computer Science and Engineering, Department of
Departmental Specialization in Environmental Engineering	Civil and Environmental Engineering, Department of
Departmental Specialization in Geotechnical Engineering	Civil and Environmental Engineering, Department of
Departmental Specialization in Structural Engineering	Civil and Environmental Engineering, Department of
Departmental Specialization in Transportation Engineering	Civil and Environmental Engineering, Department of
Departmental Specialization in Water Resources Engineering	Civil and Environmental Engineering, Department of

Departmental Specialization in Automotive Design	Mechanical Engineering, Department of
Departmental Specialization in Technical and Innovative Textiles	Textile and Fibre Engineering, Department of
Departmental Specialization in Textile Business Management	Textile and Fibre Engineering, Department of
Departmental Specialization in Appliance Engineering	Electrical Engineering, Department of
Departmental Specialization in Cognitive and Intelligent Systems	Electrical Engineering, Department of
Departmental Specialization in Graphics and Vision	Computer Science and Engineering, Department of
Departmental Specialization in Electric Transportation	Electrical Engineering, Department of
Departmental Specialization in Energy-Efficient Technologies	Electrical Engineering, Department of
Departmental Specialization in Information Processing	Electrical Engineering, Department of
Departmental Specialization in Nano-electronic and Photonic Systems	Electrical Engineering, Department of
Departmental Specialization in Smart Grid and Renewable Energy	Electrical Engineering, Department of
Departmental Specialization in Systems and Control	Electrical Engineering, Department of
Departmental Specialization in VLSI and Embedded Systems	Electrical Engineering, Department of
Departmental Specialization in Polymeric Materials	Materials Science and Engineering, Department of
Departmental Specialization in Metallurgy	Materials Science and Engineering, Department of
Minor Area in Chemical Engineering	Chemical Engineering, Department of
Departmental specialization in Multiscale Simulation and Data Analytics in Chemical Engineering	Chemical Engineering, Department of
Departmental Specialization in Novel Materials and Reactor Engineering	Chemical Engineering, Department of
Minor Area in Biological Sciences	Biological Sciences, Kusuma School of
Minor Area in Business Management	Management Studies, Department of
Minor Area in Entrepreneurship	Management Studies, Department of
Minor Area in Economics	Humanities and Social Sciences, Department of
Minor Area in Computational Mechanics	Applied Mechanics, Department of
Minor Area in Design	Design, Department of
Minor Area in Computer Science	Computer Science and Engineering, Department of
Minor Area in Cogeneration and Energy Efficiency	Energy Science and Engineering, Department of
Minor Area in Renewable Energy	Energy Science and Engineering, Department of
Minor Area in Technologies for Sustainable Rural Development	Rural Development and Technology, Centre for
Departmental Specialization in Biopharmaceuticals and Healthcare	Chemical Engineering, Department of
Minor Area in Atmospheric Sciences	Atmospheric Sciences, Centre for

Departmental Specialization in Sustainable Energy and Environment	Chemical Engineering, Department of
Minor Area / Departmental Specialization in Process Engineering, Modelling and Optimization	Chemical Engineering, Department of
Minor Area / Departmental Specialization in Nano-science and Technology	Physics, Department of
Minor Area / Departmental Specialization in Photonics Technology	Physics, Department of
Minor Area / Departmental Specialization in Quantum Technologies	Physics, Department of
Minor Area / Departmental Specialization in Theoretical and Computational Techniques in Physics	Physics, Department of
Interdisciplinary Specialization in Biodesign	Biomedical Engineering, Centre for
Interdisciplinary Specialization in Robotics	Mechanical Engineering, Department of
Departmental Specialization in Applications and Information Technology	Computer Science and Engineering, Department of
Departmental Specialization in Architecture and Embedded Systems	Computer Science and Engineering, Department of
Departmental Specialization in Data Analytics and Artificial Intelligence	Computer Science and Engineering, Department of

1.8 Change of Programme at the End of the First Year

Regular Students

(a) An undergraduate (B.Tech./Dual Degree/B.S.) student is eligible to apply for change of branch at the end of the first year only, provided they satisfy the following criteria:

(i) CGPA for General, OBC and EWS category students in all courses : >8.00

(ii) CGPA for SC/ST/PwD category students in all courses : >7.00

(iii) Earned credits/non-graded units at the end graded of the second semester of the first year : All credits of core and non-units of the first year

(iv) Optionally, one of more first year courses would be identified by each programme, in which the grade of the applicant is equal to or above B. A list of such courses identified for various programmes is given in Table 1.8.

(v) For branch change to the B.Tech. programme of Department of Design, there is an additional requirement that the student must have successfully qualified the Design Aptitude Test, UCEED.

(b) The student should have no disciplinary action against him/her.

(c) Change of the branch will be permitted strictly in the order of merit, in each category, as determined by CGPA at the end of first year, subject to the limitation that the actual number of students in the third semester in the branch to which transfer is to be made should not exceed its sanctioned strength by more than 15% and the strength of the branch from which transfer is being sought does not fall below 85% of its sanctioned strength.

(d) In case more than one student applying for programme change have the same CGPA, the tie shall be resolved on the basis of JEE ranks of such applicants.

(e) After branch change, the student will have to credit the first DC course of the new branch as soon as possible. The corresponding course in the original branch that the student has already completed will be considered as OC. Further, the GE and BS courses that the student has credited in the first two semesters, based on the mandatory requirements of the original branch, will be considered to satisfy the mandatory GE and BS requirements of the new branch (for the first two semesters), unless there are course pre-requisites to be satisfied.

(f) The conditions mentioned in item (a) above will not be insisted upon for change to a branch in which a vacancy exists with reference to the sanctioned strengths, and the concerned student was eligible as per JEE Rank for admission to that branch at the time of entry to IIT Delhi. However, these conditions will continue to apply in case of students seeking change to a branch to which the concerned student was not eligible for admission at the time of entry to IIT Delhi.

Table 1.8: Qualifying criterion for change of branch

S.No.	Programme Code and Name of the Programme to which change is sought		Specified Course in which a minimum of B grade is required
1	AM1	B.Tech. in Engg. and Computational Mechanics	AML1000 Engineering Mechanics OR MEL1002 Engineering Mechanics
2	BB1	B.Tech. in Biochemical Engg. and Biotechnology	CML1001 Structural Insights into Atoms and Molecules OR CML1002 The Art and Science of Building Molecules and Materials
3	CH1	B.Tech in Chemical Engineering	MTL1002 Mathematics II Linear Algebra and Differential Equations
4	CH7	B.Tech. and M.Tech in Chemical Engineering	MTL1002 Mathematics II Linear Algebra and Differential Equations
5	CE1	B.Tech in Civil and Environmental Engineering	AML1000 Engineering Mechanics
6	CS1	B.Tech. in Computer Science and Engineering	COL1000 Introduction to Programming
7	CS5	B.Tech. and M.Tech in Computer Science and Engg.	COL1000 Introduction to Programming
8	CY1	B.S. in Chemistry	CML1001 Structural Insights into Atoms and Molecules OR CML1002 The Art and Science of Building Molecules and Materials
9	DD2	B.Tech. in Design	UCEED qualified (either in year of joining IIT Delhi or in their first year)
10	EE1	B.Tech. in Electrical Engineering	None
11	EE3	B.Tech. in Electrical Engg. (Power and Automation)	None
12	ES1	B.Tech. in Energy Science & Engineering	None
13	MS1	Materials Science and Engineering	MTL1001 Mathematics I Calculus OR MTL1002 Mathematics II Linear Algebra and Differential Equations
14	MT1	B.Tech. in Mathematics and Computing	MTL1001 Mathematics I Calculus AND MTL1002 Mathematics II Linear Algebra and Differential Equations
15	MT6	B.Tech. and M.Tech. in Mathematics and Computing	MTL1001 Mathematics I Calculus AND MTL1002 Mathematics II Linear Algebra and Differential Equations
16	ME1	B.Tech. in Mechanical Engineering	None

17	ME2	B.Tech. in Production and Industrial Engineering	None
18	PH1	B.Tech. in Engineering Physics	PYL1001 Introduction to Electrodynamics OR PYL1002 Waves and Oscillations OR PYL1003 Mechanics and Special Theory of Relativity AND A- in PYP1000 Physics Laboratory
19	TT1	B.Tech. in Textile Technology	CML1001 Structural Insights into Atoms and Molecules OR CML1002 The Art and Science of Building Molecules and Materials

1.9 Self-study Course

A self-study course will be from the regular UG (B.Tech./Dual Degree/B.S./B.Des.) courses listed on the given *https://courses.iitd.ac.in/* The main features of a self-study course are as follows:

(a) A student may be given a self-study course not exceeding 5 credits in the final semester if they are short by a maximum of 5 earned credits required for graduation and provided that the course is not running in that semester as a regular course. Students in the Dual-Degree programmes are allowed to avail of this provision during their last semester. However, they would be permitted to take only a UG course as a possible self-study course. A student can make use of this provision only once during the programme.

(b) A student may also be permitted to do a U.G. core course not exceeding 5 credits in self-study mode at most once during the program, provided they have failed in it earlier and the course is not being offered as a regular course during that semester.

(c) Students should apply for a self-study course with appropriate recommendation of a Course Coordinator and the Head of the Department of the student's programme. The final sanction of a self-study course to a student is made by the Dean, Academics.

(d) Normally, no formal lectures will be held for a self-study course but laboratory, design and computation exercises will be conducted if they form an integral part of the course.

(e) The Course Coordinator will hold mid-semester and major exams besides other tests/quizzes for giving their assessment at the end of the semester. In summer semester, there will be at least one mid semester exam and a major exam.

(f) The self-study course will run during the total duration of a given semester (Semester I, Semester II, or the summer semester).

(g) The Swayam (NPTEL) courses can be considered for credit waiver. There will be no credit transfer. For pre-2025 entry students, a waiver of 8 credits (UG elective category) will be given against audit courses. The UG students, who have failed in courses, may be allowed to complete up to two courses through NPTEL and the credits for these courses will be waived. This will be in lieu of the self-study option. If a lab component is attached to the corresponding IIT Delhi core course, there is a need to complete the lab work as a separate course. The students should make the request sufficiently in advance to the DUGC/AURC, who will set the equivalence and suggest the number of credits to be waived against the selected NPTEL course.

1.10 Assistantship for Dual-Degree and Advanced Standing Students

The students of dual-degree programmes and advanced standing students will be considered for award of institute research/teaching assistantship if they have earned 135 credits. Only those students who have either qualified GATE or have a CGPA more than 8.0 will be eligible for this assistantship. The assistantship will be provided for a maximum period of 14 months beginning from the summer semester following eighth semester, provided the student is registered for M.Tech. Major Project in that semester. A student availing assistantship will be required to provide 8 hours of assistance per week besides their normal academic work. For continuation of assistantship

a student will need to secure SGPA of 7.0 for GEN/OBC and 6.75 for SC/ST. A student will be eligible to receive assistantship from sources other than institute fund or MHRD if they have a CGPA of 7.0 and has earned 135 credits.

A student receiving assistantship will be eligible for total of 30 days leave during the 14-month period. They will not be entitled to mid-semester breaks, winter and summer vacations.

1.11 Admission of UG Students to PG Programmes: Advanced Standing

The Institute offers Advanced Standing options to all undergraduate students to encourage them to pursue a Masters' degree at IIT Delhi starting from their fourth year of undergraduate studies. A student can pursue a higher degree in any department. To be eligible, students require a 7.5 CGPA at the time of enrollment in the higher degree. On application, admission to the higher program is based on evaluation/interview by the receiving program. To take maximum advantage of the program, students need to apply at the end of their UG 3rd year. Students are required to apply before their graduation from the UG program. The student will be awarded both the degrees - B.Tech. and the PG degree on successful completion of the degree requirements of both the programmes.

The following cases are possible: (1) UG student in Department 'X' pursuing M.Tech./M.S.(R) in Department 'X', (2) UG student in Department 'X' pursuing M.Tech./M.S.(R) in Department 'Y'.

i. UG student in Department-'X' pursuing M.Tech. in the same department: The following credit relaxations are given: 6 credits reduced from OE/OC, 6 credits reduced from DE requirement, 6 PC credits waived (identifying foundational M.Tech. courses that cover material studied in B.Tech.), and BTP1/Capstone waived. In case of M.S.(R), the BTP1/Capstone project and upto 6 credits from the DE requirement may be waived. The details on the total credit requirements are shown in Tables 1.9 and 1.10.

Table 1.9: Credits needed for B.Tech. and M.Tech. in the same department

Category	Credits Required
BS	24
GE	24
DC/DE	61-77 (based on corresponding B.Tech. program, less 9: 6 credits DE, BTP1/Capstone)
PC/PE	45-51 (based on corresponding M.Tech. program, less 6: foundational PC courses covered in B.Tech. 3 credits internship/minor-project included.)
HS	15 (composition to be decided by AU)
OC/OE	9 (OE not more than 6)
Total	**178-200**

Table 1.10: Credits needed for B.Tech. and M.S.(R.) in the same department

Category	Credits Required
BS	24
GE	24
DC/DE	61-77 (based on corresponding B.Tech. program, less 9: 6 credits DE, BTP1/Capstone)
PC	45 (3 credits internship/minor-project and 42 credits thesis)
PE	15
HS	15 (composition to be decided by AU)
OC	9
Total	**193-209**

ii. UG student in Department 'X' pursuing M.Tech. in Department 'Y': The following credit relaxations are given: M.Tech. corner-stone project waived, 3 credits of PE waived, and 6 credits of OE waived. The student is expected to use the 9 OC credits to study foundational undergraduate courses in Department 'Y', which may be specified by Department 'Y' in advance. In the case of M.S.(R), no credit waivers are allowed. The details on the total credit requirements are shown in Table 1.11.

Table 1.11: Credits needed for B.Tech. and M.Tech. in different departments

Category	Credits needed for B.Tech. in Dept. 'X' and M.Tech. in Dept 'Y'
BS	24
GE	24
DC/DE	70-86 (based on corresponding B.Tech. program)
PC/PE	43-51 (based on corresponding M.Tech. program, less 6-8: 1 PE and cornerstone project waived)
HS	15 (composition to be decided by AU)
OC	9 (no OE)
Total	**185-209**

If eligible, students in the advanced standing program need to register for research/teaching practicum starting from their 5th year.

1.12 Measures for Reserved Category Students

A number of measures exist for helping students belonging to SC and ST categories. A senior faculty member is appointed as adviser to SC/ST students for advising them on academic and non-academic matters. Financial measures for helping SC/ST students are described in the Institute Prospectus.

1.13 Measures for Differently abled Students

To establish a complete accessible system to help the students with special need, the Office of Accessible Education is in place. It supports the students with assistive devices and technical training programme. It also conducts workshops for disability awareness in the campus.

2. NON-GRADED CORE FOR UNDERGRADUATE STUDENTS

In order to synergize formal academics with informal outside-class-room learning experience, mechanisms for earning non-graded units exist in the undergraduate curriculum. In order to earn these units, a student will need to involve themself in activities beyond the classroom engagements. For earning 1 unit a student will typically need to work for 2-3 hours per week (28-42 hours per semester) in on-campus activities. In case of project/design/internship activities, the student engagement expected is typically 20 days of work per non-graded unit. A student would not be allowed to earn credits as well as non-graded units for the same effort. It is important that the efforts towards earning non-graded units should be distinct from that spent on earning credits. Also, the effort for earning different components of the non-graded units should be distinct, i.e., the same effort would not be evaluated for more than one non-graded component.

Non-graded core of the undergraduate curriculum comprises of four components, as shown in Table 2.1.

Table 2.1 : Non-Graded Components and their units

S.No.	Components	Minimum NGUs for Graduation	Maximum Countable Towards Total of 8 NGUs
1	Life Skills	2	2
2	Language and Writing Skills	2	2
3	NCC/NSO/NSS	1	2
4	Design and Practical Experience	2	3
	Total	***8***	

These 8 units form a compulsory graduation requirement for all the undergraduate (B.Tech., B.S., as well as Dual degree) programmes (B.Des. programme requires 4 NGU units on Social Immersion). A student will need to earn these 8 units over the duration of the programme with special consideration and requirements for each component as detailed in the following sections. Each component would be constituted by one or more non-graded courses, and a student will need to get an 'S' grade in these courses to earn the respective non-graded unit(s). Incomplete status in such courses will be indicated by a 'Z' grade. The student would be required either to repeat the course/activity or continue with the project/internship until such time that the evaluating faculty member/committee is satisfied with the effort to award an 'S' grade.

For some components in the above table, a special portal called the NGU portal is used for necessary approvals and posting of "S" grades. This portal can be accessed at *https://ngu.iitd.ac.in/index*

2.1 Life Skills

There is increasing consensus worldwide that life skills should be incorporated into the engineering curriculum to provide students with an exposure to a variety of topics such as time and stress management, goal setting, appreciating diversity, navigating the complex digital landscape, creative learning and thinking, ethical behaviour, leadership, thinking about coexistence on campus and beyond, making sustainable choices, to name a few. The purpose of the course is to enable students not only for academic success in IIT while working in a relaxed state of mind, but also to enable them to create and nurture qualities for success in life, materially, intellectually, as well as emotionally. Faculty interactions are an important part of this process, as much as guided workshops organised by professionals, practitioners, academicians, and alumni who have a deeper knowledge of various subtopics. A student is required to complete 2 non-graded units in this component through activities divided into 3 core courses. The courses DAN1100 and DAN2100 together correspond to 1.5 non-graded units and the workshops spread over three semesters correspond to 0.5 unit. The courses under this category are:

i) DAN1100 Life Skills – 1 in 1st Semester (core, 0.75 units, graded S/Z)

ii) DAN2100 Life Skills – 2 in 4th Semester (core, 0.75 units, graded S/Z)

iii) Workshops in 2nd and 3rd semesters (core, 0.5 units, graded S/Z)

Table 2.2 provides the details on these non-graded component on Life Skills.

Table 2.2 : Non-Graded Component on Life Skills

S.No.	Course	Period of Activity	Description	Requirement for 'S' grade	No. of units
1	DAN1100 Life Skills–I	1st Semester	Course driven and graded by faculty members, and supplemented by workshops on below suggested topics: 1. Institute Awareness: Campus, Resources, Expectations 2. Workshop on Vision / Career / Goal Setting 3. Self-Awareness: Goal Setting & Career Introduction 4. Workshop on Time/Stress Management 5. Self-Management -Financial, Health, Stress, Time 6. Study Skills & Learning Styles 7. Workshop on Digital Wellness / Social Media 8. Digital Literacy, Online Safety, and Generative AI 9. Understanding Diversity & Striving for Harmony 10. Emotional Intelligence for the Well-being of Self and Surroundings	Participation in all the sessions held	0.75
2	DAN2100 Life Skills–2	4th Semester	Course driven and graded by faculty members, and supplemented by workshops on below suggested topics: 1. Re-connecting and re-orienting 2. Workshop on Making responsible / ethical choices 3. Academic Honesty and Professional Ethics 4. Workshop on Developing Leadership Skills in a Diverse World 5. Thinking about and making informed career choices 6. Introduction to Sustainability 7. Workshop on Real World Problems / Creative Thinking 8. Real-World Problems and Creative Thinking 9. Workshop on Substance Abuse 10. Self and Society	Participation in all the sessions held	0.75
3	Workshops	2nd and 3rd Semesters	14 hours of engagement across two semesters through workshops on some of the following suggested topics: 1. Re-connecting and re-orienting 1. Professional Ethics 2. Understanding Rural India 3. Introduction to Wellness 4. India's grand challenges 5. Systems thinking 6. Design thinking 7. Personal Finance 8. Social communications 9. Negotiation skills 10. Understanding Family in the Context of Self and Society 11. Environmental Sustainability 12. Workshop on minimalism 13. Understanding India 14. Understanding Constitution / Law For Civic Duties 15. Connecting with nature	Participation in all the sessions held along with presentation of case studies	0.5

2.2 Language and Writing Skills

All students are required to participate in Task-Based language classes in the first two semesters. The language needs of a particular batch of the students will be assessed through an online test before the classes begin in the first semester. Then the exercises for different classes will be tailored to the language needs of those students. In general, these exercises are designed to enhance linguistic capabilities in comprehension, both reading and listening, as well as improve the ability to structure and compose ideas in spoken and written communication. Many of them will be structured in the form of competitive games. Wherever necessary principles of English Grammar will be discussed along with the nuances of technical writing. With respect to its content, some of the textual material and lectures will focus on the relationship between Engineering, Humanities and Social Sciences.

The two semesters of Language and Writing Skills is administered in the form of two courses, each of one unit. A basket of courses is present in this category: DAN1001 Essential English, DAN1002 Structure of English Language, DAN1003 History of the English Language, DAN1004 Writing and Editing [Basic], DAN1005 Speaking in English, DAN1006 Social and Professional Communication, DAN1007 Advanced Writing and Editing, DAN1008 Language Through Literature, DAN1009 Creative Writing, DAN1010 Conversational Etiquette, DAN1011 Visual Language, DAN1012 Reading STEM Literature, and DAN1013 Reading Strategies [Advanced]. The courses DAN1001-DAN1005 are categorized as intensive modules and DAN1006-DAN1013 are categorized as non-intensive modules. The intensive module has four classes a week and gets over in 5 weeks. It will help the less proficient students pick up the language faster by constant engagement. The non-intensive modules span the semester with a weekly class. The students can choose the modules they would like to register for based on their interests. Each module has the L-T-P structure of 0-0-2.

These courses are coordinated by faculty from the Department of Humanities and Social Sciences and an 'S' grade in both the English Language courses is generally a prerequisite to register for most undergraduate courses offered by the department of HSS. Assessment of a student towards S grade in each of these courses would typically be on the basis of attendance, participation and performance in the exercises. A student could also be prescribed self-learning exercises or additional practice sessions during vacations as requirement for securing 'S' grade. Student's involvement, during regular semester, would typically be two hours per week.

2.3 NCC / NSO / NSS

A student is required to choose one of NCC/NSO/NSS during the first semester, and complete the requirements preferably within the first four registered semesters. Students will be required to earn a minimum of 1 non-graded unit from one of these activities, by completing at least 40 hours of work. Students can earn up to 2 units by putting in 80 hours of work. The faculty coordinators of NCC/NSO/NSS decide and announce the policies on earning non-graded units in these activities from time to time.

2.4 Design / Practical Experience

The objective of this non-graded component is to give opportunities to students to learn in an informal setting. This mode of learning, is often more effective than conventional lectures / laboratory work. Second and even more important objective of this non-graded component is to inculcate design thinking among students and facilitate them to gain some design immersion experience. Design / Practical Experience (DPE) component can promote learning by doing which does two important things: Firstly, it allows students to immerse themselves in the environment in which work is to be done, so that they can understand the values and expectations of the target beneficiaries. Secondly it enables a fresh look at problems, not only at the ways of defining them, but also at the ways to solve those including skill-sets that are required to address them. This approach signifies a shift from problem-based learning (acquisition of knowledge) to project-based learning (application of knowledge), in which the projects are grounded in problems outside the classrooms and laboratories, in everyday scenarios. Thus, DPE bridges division between the curricular and the co-curricular components, and encourages the curiosity and involvement that arises from total absorption in a subject of interest.

As a part of this requirement, every student is expected to earn a minimum of two non-graded units of DPE to complete the degree requirements. To earn one unit of DPE, a student is expected to put in 28-42 hours of effort or 20 working days depending on the type of activity. To earn two units of DPE, a student needs to put in 56-84 hours of effort or 40 working days depending on the nature of activity. These units can be earned in multiple ways during the semester as well as during vacation and mid-semester breaks:

- Courses with design focus without any regular graded credits, which are designated to give design / practical experience units.

- Courses (core or elective) with optional design / practical experience component.
- Summer / semester internships by students in R&D / Industry / Universities in India or abroad.
- Summer / winter / semester projects under the guidance of faculty of the Institute.
- Participation in design / innovation projects by Innovation Center / CAIC, etc.
- One time activity such as design / practical experience workshop / course / event during semester / vacation / mid-semester breaks, etc.

DPE activities are not restricted to design of physical products but can also include system level design and experience. For example, a team of students who under the supervision of faculty in collaboration with an NGO, would like to design a new financial inclusion system for marginalized section of population too can earn design / practical experience units.

The operational modalities of implementing the above-mentioned activities so that students can earn the required non-graded units, are presented in the following paragraphs.

2.4.1 Management of Non-graded DPE Units

Each Department offering UG programme(s) would constitute a DPE Committee with a Departmental DPE Coordinator to manage the non-graded Design / Practical Experience units.

a) The Departmental DPE Committee would coordinate with Office of Career Services (OCS) to identify and vet industries for internships.

b) The committee would also examine other types of internships (in Universities, research laboratories, start-ups etc.) requested by students and approve or deny as per a policy defined by the Department.

c) Students of the Department desirous of earning non-graded DPE units through any other mechanism listed above should request permission of this committee before embarking on the activity. The committee would also decide on the award of non-graded DPE units for all such activities for the students of the Department through appropriate evaluation mechanisms.

d) The committee would be responsible to evaluate the design activities carried out by the students during internships and recommending award of the non-graded DPE units, or continuation of the internship activity for more days to become eligible for the units, as per the efforts of the students during the internship. DPE Committee will moderate all Design units awarded to students of that Department. The Departmental DPE Coordinator also has responsibility of ensuring that units earned by heterogeneous activities meet the requirements in terms of learning efforts and experience.

e) The Dean Academics will appoint an Institute DPE Coordinator for Design / Practical Experience units.

f) Departmental DPE Coordinators, Institute DPE Coordinator and Associate Dean Academics-Curriculum together will form an institute level committee to moderate the non-graded units awarded under interdisciplinary work including the activities carried out by students in Departments / Centers / Schools not offering UG programmes. This committee would also review and modify policies as well as modalities for administering DPE units.

2.4.2 Activities Covered Under Design / Practical Experience

2.4.2.1 Specialized Courses Related to Design / Practical Experience (Maximum 2 Units)

Departments / Centres / Schools may offer a basket of courses that will not have any credits associated with them but will have only Design / Practical Experience units linked to them. In other words, on successful completion of such courses the students will earn only DPE units but no graded credits. These courses offered by Departments / Centers / Schools can be of one unit (28-42 hours of student effort) or two units (56-84 hours of student effort). Faculty offering these courses will award these units on successful completion of the course requirements, and the same would be moderated by the Departmental Committee for DPE in case of Departments offering undergraduate programmes. For other Departments / Centres / Schools, the moderation would be done by the Institute level DPE committee.

2.4.2.2 Semester / Summer / Winter Projects Under the Guidance of Institute Faculty (Maximum 2 Units)

Some of the co-curricular activities in the Institute that pertain to team-based product building such as Robotics, Automobile, IGEM, Aero-modelling etc. can also be considered for earning DPE units. Students who successfully

complete SURA / DISA projects will also be eligible for DPE units. Besides, students may also opt for working on semester / summer / winter projects involving design / practical experience activity under the guidance of faculty of the institute. In order to be evaluated for DPE Units in such cases, a student should register for Minor Design Project floated by the parent Department of the student. In case the project is interdisciplinary or it is offered by faculty of other Departments / Centres / Schools, the faculty supervisor of the project may advise the students to register for Minor Design Project. In either case, the project would be evaluated by the faculty supervisor.

2.4.2.3 Regular Courses with Optional Design / Practical Experience Component (Maximum 2 Units)

Course coordinators of regular core and elective courses can also offer optional design component in their courses. A proposal for this should be sent to the Departmental DPE committee prior to the commencement of the course by the Course Coordinator. This would be notified to students by the Departmental DPE committee and also announced to the students by the course coordinator. Successful completion of the course will give graded credits to students and at the same time they will be eligible for earning (1 or 2) design units if they successfully complete the optional DPE component. The course coordinator will recommend these DPE units on successful completion of the assigned work. This would be moderated by the Departmental Committee for DPE. In case the course is offered by Departments / Centres / Schools which do not offer a UG programme, the notification prior to beginning of the course and moderation after the end of the course would be done by the Institute level DPE committee. In order to be evaluated for DPE Units, a student should register for a Minor Design Project.

2.4.2.4 Summer Internships (Maximum 2 Units)

Students can undertake a minimum of 40 working days of internship to earn two design practical experience units during summer vacations in Industry, R&D institutions or Universities in India or abroad. This cannot be earned in parts. For example, 1 NGU cannot be claimed for 20 working days of internship. This would be administered by the Departmental Committee for DPE with the help of the Office of Carrer Services (OCS). Students are required to get approval for taking up internship in the concerned Institute through the NGU portal prior to proceeding for the internship if they wish to claim NGU for the internship. The Departmental DPE Committee would also be responsible for appointing a faculty supervisor for the internship. Students can proceed with the internship after the Departmental Committee for DPE approves the same. Design units for the internship would be awarded by the Departmental Committee after evaluation at the end of internship period. Rules governing administration of internships are given in the below sections. In case an internship pertains to areas of expertise outside those of the parent Department, the DPE Committee may co-opt faculty members from other Departments / Centres / Schools for evaluating / supervising such internships.

2.4.2.5 One-Semester Internship (Maximum 5 Units)

Students can opt for one semester internship in Industry, R&D institutions or Universities in India or abroad, for a minimum of 100 working days, by appropriately planning for completion of credit requirements for the degree. The student can also opt for a break in coursework for a semester to initiate or work for their start up. These are the only two activities upon successful completion of which students would be eligible for 5 DPE units. It is mandatory that student's work during the one-semester internship is supervised by two mentors, one from the institute (appointed by the DPE Committee of the student's Department) and another from the host organization. In case of semester break for a start-up, students will work under the mentorship of a faculty member of the Institute. Students desiring to opt for one semester internship or semester break for start-up as mentioned above are required to plan well in advance and submit a project proposal in consultation with their supervisors (in case of internship) or faculty mentor (in case of start-ups). Students can proceed with the internship / startup activity only after the Departmental Committee for DPE approves the same. DPE units for the activity would be awarded by the Departmental DPE Committee after evaluation at the end of the internship / startup period. In case an internship / startup pertains to areas of expertise outside those of the parent Department, the DPE Committee may co-opt faculty members from other Departments / Centres / Schools for evaluating / supervising such activities. Details of the procedure are given below.

A semester in which a student earns DPE units through semester-long internship or start-up as discussed above would be counted as a registered semester for graduation requirements. In case the DPE committee does not approve the award of 5 units for such activity, the semester would not be counted as a registered semester.

2.4.2.6 One Time Design / Practical Experience Module (1 Unit)

One-time DPE modules can be offered by Institute faculty as well as working professionals who would like to engage students in a workshop / course related to design / practical experience. A proposal for such a module should be sent by faculty member coordinating the course through the concerned Department /

Centre / School to the Institute DPE Committee for approval. These modules can be typically of 28-42 hours duration, and may be offered during mid-semester breaks, winter / summer vacations and even during non-class hours in the semester.

Table 2.3 summarizes the information presented in section 2.4.2. Detailed rules pertaining to internships and their administration are given in section 2.4.3.

Table 2.3 : Implementation and Evaluation Plan for Design / Practical Experience Units

Activity	Norms for the Activity	Criteria for awarding Units	No. of Units	
			Min	Max
Courses with design focus (which are primarily design courses or have significant design component)	Courses offered as per Institute procedure	Registration by the student in the respective course; Evaluation by course coordinator; Moderation by DPE committee of Department / Institute	1	2
Courses with optional design/practical experience component	Course Coordinator provides intimation to Departmental /Institute DPE Committee about offering optional design units prior to commencement of the course	Student to raise request on the NGU portal for prior permission, forwarded by course coordinator; Prior Approval by DPE coordinator; Evaluation by course coordinator; Moderation by DPE committee of Department/Institute	1	2
4-week project with Institute Faculty during winter/summer (20 working days)	Notification of projects by DPE Committee of Student's Department/Institute	Student to raise request online for prior permission; Prior approval by DPE Committee of Student's Department; Evaluation by Faculty Supervisor of the project; Completion approval request by student forwarded through supervisor; Moderation by DPE committee of Department/Institute	1	1
8-week project with Institute Faculty including SURA, DISA, etc. (40 working days)	Notification of projects by DPE Committee of Student's Department / Institute OR Announcement and selection by appropriate Institute bodies	Student to raise request online for prior permission; Prior approval by DPE Committee of Student's Department; Evaluation by Faculty Mentor of the project / appropriate committee; Completion approval request by student forwarded through supervisor; Moderation by DPE committee of Department / Institute	2	2
Internship during summer with Industry / R&D / University (40 working days)	Arranged by OCS or self-arranged by the student	Student to raise request online for prior permission; Prior approval by DPE Committee of Student's Department; Monitoring by Internship supervisor; Completion approval request by student forwarded through supervisor; Evaluation and Moderation by DPE committee of Department / Institute	2	2

One semester internship (100 working days) or One semester break for own start-ups (singly or jointly)	Arranged by OCS or self-arranged by the student	Student to raise request online for prior permission; Prior approval of Institute DPE Committee on recommendation from DPE committee of Student's Department; Monitoring by Internship supervisor; Completion approval request by student forwarded through supervisor; Evaluation and Moderation by DPE committee of Department / Institute	5	5
Participation in design / project activity under the supervision of faculty during semester	Notification of projects by DPE Committee of Student's Department / Institute or the Student to approach the faculty	Student to raise request online for prior permission; Prior approval by DPE Committee of Student's Department; Evaluation by Faculty Mentor of the project; Completion approval request by student forwarded through supervisor; Moderation by DPE committee of Department / Institute	1	2
Participation in design / practical / experience workshop / course / event organized by industry / other institutions or visitors including visiting faculty	Proposal for activity to be recommended by faculty coordinator or Department DPE Committee and approved by Institute DPE Committee	Registration by the student in the activity; Evaluation by Faculty Coordinator and Visiting Faculty offering the course if any; Moderation by DPE committee of Department / Institute	1	1
Participation in design / innovation activities of clubs (eg. Robotics, IGEM, etc.)	Notification by the Faculty in-charge of the corresponding activity	Student to raise request online for prior permission; Prior approval by DPE Committee of Student's Department; Evaluation by faculty in-charge of activity / clubs; Completion approval request by student forwarded through supervisor; Moderation by Institute DPE committee	1	2

- A student cannot register for more than 3 non-graded DPE units per summer semester or per registered semester in which a student is on regular academic activity. To take part in activities that can result in more than 3 DPE units, a student has to take the semester off from regular courses.
- A single activity cannot be evaluated for more than one purpose. For example, the same project cannot be submitted for graded credits as well as for design units.

2.4.3 Rules Governing Internship

i) Internships for DPE units are permitted only in one of the two following formats:

   a. Summer internship of 40 days duration, in which a student can earn 2 DPE units.

   b. Semester-long internship of 100 days duration, in which a student can earn 5 DPE units.

   No other format of internship would be considered for the award of DPE units. DPE units would be awarded only if training for the stipulated number of working days, as mentioned above, is completed to the satisfaction of the concerned Departmental DPE Committee. DPE units would not be awarded against partial completion of the internship duration.

ii) A student can do at most two internships for DPE units, during their stay at the Institute. If any student does more than two internships, DPE units will be awarded for the first two registered internships only.

iii) Summer internships are allowed in the summer after the 4th registered semester of the student or later. Semester Internships are permitted from the 7th registered semester or later.

iv) Internships are permitted in industry, research laboratories or academic institutions involved in research, development and / or technology transfer. Any student opting for semester long internship may also be allowed to work on a start-up. All internships must be approved by the departmental DPE committee in advance. In the case of non-industry internships, the work should be research / development / practice oriented, and not classroom course work.

v) In all cases, for award of DPE units, after completion of the internship, the work must be evaluated by the DPE committee of the student's Department. In case the work is found wanting in any respect, the student(s) will be advised to do more work and reappear before the committee. In any case, partial award of DPE units would not be allowed.

vi) For self-arranged internships, any documentation regarding the bona fide status of students (while applying for training) will be provided by UG section.

2.4.3.1 Registration Procedure for Internships

Summer Internships:

i) At the beginning of first semester of each academic year, the data of all students who have earned at least 30 credits would be automatically enrolled by the OCS for internship in the subsequent summer.

ii) At the beginning of the internship in the following summer, the student must have completed 50 credits to be eligible.

iii) OCS sends out information to the students about the companies offering summer internships. Interested students can apply for the same.

iv) The students can also arrange for the internships on their own.

v) If a student is selected for an internship through OCS, they are bound to accept the internship. If the student does not take up or complete the internship, they will be debarred from all further OCS activities including further internship opportunities and placement procedure. This is to discourage non-serious students from depriving other students of the opportunity, and damaging the reputation of IIT Delhi with the companies offering internships through OCS.

vi) The OCS would handle correspondences and training certificates of all internships arranged by the OCS.

vii) OCS will try and arrange internships for as many students as it can. However, it may not be possible for the OCS to arrange internships for all the students who participate in the process.

viii) The OCS typically starts the process of selections for internships in August and ends in February- March. The exact dates would be notified by the OCS each year.

ix) To claim DPE units for summer internships, a student is required to initiate an activity on the NGU portal prior to the commencement of the internship. A student should register for appropriate courses depending on whether it is their first summer internship or if it is second summer internship. The approval of initiation request will be as per the rules and regulations of the academic unit, which holds for both OCS arranged as well as self-arranged internships.

x) At the end of summer internship, a student is required to submit training report and training certificate to the department DPE coordinator. Further, student will also need to raise the completion request for the registered activity. DPE units will be awarded after the due evaluation procedure of the respective academic unit.

Semester Internship:

i) Semester internship is permitted in the seventh registered semester or later, for students with at least 75 earned credits.

ii) A student needs to submit a request on the NGU portal for prior approval of semester internship. The request for internship will be evaluated by the DPE committee of the student's parent Department and approved by the Institute DPE committee upon recommendation of the former.

iii) Process of monitoring / mentoring the internship is described above. Upon completion, the student should submit a request on the NGU portal for approval of the completion of the internship through the supervisor and Departmental DPE committee to the Institute DPE committee. The grade for semester internship is awarded by the Institute DPE committee.

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