PREAMBLE

Indian Institute of Technology Roorkee (IITR), being the first technical institution in Asia and one of the premier technical institutions in India today, has been a front runner in imparting state-of-the-art education in science and technology to the people of this country, and has produced engineers and scientists par excellence. Indian Institute of Technology Roorkee inherits the legacy of excellence in teaching and research of the erstwhile University of Roorkee as evident from its illustrious alumni and their engineering feats like Aswan to Bhakra-Nangal dam across the world, standing as testimonies of their capabilities and excellence. The aim of the education at the undergraduate level is to build on the knowledge gained by a student through the curriculum by imparting knowledge with the help of classroom instructions, training and other modes of teaching. After completing the curriculum, the student will acquire adequate knowledge in the desired discipline, which could be easily employed for the solution of real-life problems and developed further through higher education, for reaching the frontiers of knowledge in his/her area of specialisation. The Institute also imparts knowledge to students in the emerging areas of science and technology and offers five-year Integrated programs.

The undergraduate and postgraduate programs have both academic and extracurricular components designed for the integrated development of the students, possessing individual values of ethics, morality and societal connect.

In these days of rapid evolution of knowledge, the academic programs require provisions for continuous updating of the contents of the syllabi to incorporate new developments in a particular area of knowledge. The present course structure has been designed to meet the challenges of the society in next decade. The curriculum is, therefore, broadly defined to make it possible for the teacher to update it continuously by including the latest developments. Exchange of knowledge and methodology across the disciplines is important in furthering its frontiers. In keeping with this spirit, the curriculum encourages students to learn across different disciplines, including social sciences, management, environmental studies. The curriculum has been designed to offer enough flexibility to the students to tailor their learning to individual inclinations and the desired career objectives.

The curriculum in a given discipline includes academic programs involving ingredients of classroom teaching, laboratory practices, training, seminar and project. These ingredients are specified in terms of courses with a given code specifying the subject(s) to be taught under them. Every course has a credit depending on the workload it involves. A student is continuously evaluated during the conduct of a course and is awarded a letter grade on the basis of his/her performance. The academic year is divided into two semesters, and in each semester a student has to register for the courses as specified in the concerned program structure. When a student earns a minimum number of credits specified for a given curriculum, he/she becomes eligible for the award of the degree.

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THE INSTITUTE

Indian Institute of Technology Roorkee, erstwhile University of Roorkee, is the oldest technical institution of the country. Established as the Roorkee College in 1847 and rechristened as the Thomason College of Civil Engineering in 1854, it made tremendous contributions in the development of infrastructural base-roads and highways, canals and irrigation networks, railways and engineering industries. Recognising its outstanding contributions and its potential for growth, the college was elevated to be the first Technical University of India on November 25, 1948. Nurtured as the premier institution by the State of Uttar Pradesh, the University was declared an Institute of national importance and converted into the Indian Institute of Technology Roorkee by an Act of Parliament with effect from September 21, 2001.

The academic activities of the Institute are spread over three campuses: (i) 365 acres campus at Roorkee, (ii) 25 acres campus at Saharanpur and (iii) 10 acres campus of Greater Noida Extension Centre at Greater Noida. The Institute offers several undergraduate programs leading to Bachelor's degree in different disciplines of engineering, sciences, architecture, and design. In addition, the Institute offers Integrated dual-degree programs and Integrated Masters programs in different disciplines of engineering and sciences, and postgraduate programs in specialised areas leading to Master's degree in technology, architecture, sciences, management and design. The Institute is also engaged in advanced level research and offers doctoral programs in the areas of cutting edge technologies and sciences.

The Institute has a highly qualified and motivated faculty of about 543 teachers who are engaged in both teaching and research, as well as offer their expertise through consultancy services to private and public sector industries and agencies. The Institute has at present about 5566 undergraduate students, 2122 postgraduate students and nearly 3117 Ph.D. scholars including overseas students from several countries.

A number of academic and service centres are engaged in interdisciplinary research and there are many collaborative programs between the Institute and other institutions in India and abroad. The teaching and research at the Institute is amply supported by central facilities such as the Central Library with around 4 lakhs printed volumes of books, journals and periodicals. The Central Library is a member of the Indian National Digital Library in Engineering Science and Technology (INDEST) Consortium. The membership provides online access to about 15000 e-journals and 15000 e-books. Important centres and cells on the campus include: E-learning Centre, Institute Computer Centre, Institute Instrumentation Centre, The Tinkering Lab, TIDES Business Incubator, iHUB Divyasampark TIH, and Intellectual Property Right Cell.

The Institute prepares students to meet the ever-increasing technological and social challenges with its traditions of self-discipline, hard work, all round personality development and a creative approach to problem solving. An extensive infrastructure exists to imbibe and cultivate these attributes amongst the students. To maintain the highest standards, the Institute has recently introduced major changes in its undergraduate curriculum, with emphasis on greater flexibility and interdisciplinary focus.

The Institute has procured a large number of state-of-the-art equipment and various other facilities, thus updating and modernizing its laboratories. All the Departments of the Institute have modern laboratories equipped with sophisticated facilities.

A large number of distinguished organizations interact with the Institute through research and consultancy services, which bears testimony to the important role being played by the Institute in the national development. The Institute also offers, on request, tailor-made short-term continuing education programs, specifically for personnel from industry and service organizations.

The Indian Institute of Technology Roorkee has a unique character and is fully residential for the students and the faculty. The Institute campus is vibrant with diverse creative activities, which constantly serve to bring students and the staff in close contact, thereby fostering an all-round intellectual development. The Institute campus has an excellent gymnasium, badminton and squash courts, lawn tennis courts, a swimming pool, billiards tables, and recreational centres like the Students' Clubs, Hobbies Club, Boat Club, Cultural Society, and Institute Cinema Club. The students are housed comfortably in hostels with excellent dining facilities. A fairly equipped Institute Hospital caters to the health needs of the campus community.

The Institute organizes several co-curricular activities for all-round personality development of the students, such as THOMSO, the annual youth festival; COGNIZANCE, an all-India technical festival. Hobbies club and its annual exhibition SRISHTI is one of the unique features of the Institute that promotes creativity among students.

Students are encouraged to participate in various sports and cultural activities to help them develop a well-balanced personality. Every year, they organize an exhibition of fine arts, sculptures and carvings, philately, photography, scientific models, etc., besides sports activities. Being a rather compact campus, a cheerful and friendly atmosphere prevails and students feel at home very soon after joining the Institute. The lush green surroundings and the stately Ganga Canal flowing nearby provide a very stimulating and creative environment.

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Academic Departments, Centres and Units

There are twenty-three academic departments in the Institute, one school, ten academic centres, seven academic service units and five other supporting units.

Academic Departments	
1. Applied Mathematics and Scientific Computing*	2. Architecture and Planning
3. Biosciences & Bioengineering	4. Chemical Engineering
5. Chemistry	6. Civil Engineering
7. Computer Science and Engineering	8. Design
9. Earth Sciences	10. Earthquake Engineering
11. Electrical Engineering	12. Electronics and Communication Engineering
13. Humanities and Social Sciences	14. Hydrology
15. Hydro and Renewable Energy	16. Management Studies
17. Mathematics	18. Mechanical and Industrial Engineering
19. Metallurgical and Materials Engineering	20. Paper Technology*
21. Physics	22. Polymer and Process Engineering*
23. Water Resources Development and Management	

*Note: These departments are at Saharanpur Campus.

School
1. Mehta Family School for Data Science & Artificial Intelligence

Academic Centres	
1. Disaster Mitigation & Management	2. Indian Knowledge Systems
3. International Centre of Excellence for Dams	4. Nanotechnology
5. Photonics and Quantum Communication Technology	6. Semiconductor Design and Technology
7. Space Science and Technology	8. Sustainable Energy
9. Sustainable Rural Development	10. Transportation Systems
Academic Service Centres	
1. Centre for Continuing Education	2. E-Learning Centre
3. Institute Computer Centre	4. Institute Instrumentation Centre
5. Greater Noida Extension Centre IITR	6. Mahatma Gandhi Central Library
7. Rethink! The Tinkering Lab	
Other Units	
1. DRDO Industry Academia Centre of Excellence (DIA-CoE)	2. iHUB Divyasampark TIH - under NM-ICPS mission, Govt of India
3. Intellectual Property Right Cell	4. TIDES Business Incubator
5. Water for Welfare: An Uttarakhand Government Initiative	

The Academic Departments, Centres and School offer courses to the students of various disciplines. Academic curricula are so devised that a student of one discipline can take some courses of other disciplines as well. Such flexibility helps a student to develop his/her core competence together with the interdisciplinary skills in the area(s) of his/her interest.

Programs

The main aim of education at IIT Roorkee is to enable students to face the wide-ranging changes taking place in the fields of science, technology, environment and management with confidence. This includes undertaking design, development, construction, production, managerial and entrepreneurial activities, and higher studies in their chosen or allied interdisciplinary fields of study.

Undergraduate Programs

The Institute offers the following undergraduate programs (Table-1) leading to Bachelor's degree, Integrated Dual Degree (IDD), Integrated M.Tech. (IMT) and BS-MS degree in different disciplines of Engineering, Technology, Architecture, Science and Design:

Table-1: UG Programs

SL.No.	Program	Duration (in years)	Department
Bachelor's Degree			
1.	B. Arch.	5	Architecture and Planning
2.	B. Des.	4	Design
3.	B.Tech. (Biosciences and Bioengineering)	4	Biosciences and Bioengineering
4.	B.Tech. (Chemical Engineering)	4	Chemical Engineering
5.	B.Tech. (Civil Engineering)	4	Civil Engineering
6.	B.Tech. (Computer Science and Engineering)	4	Computer Science and Engineering
7.	B.Tech. (Data Science and Artificial Intelligence)	4	Mehta Family School for DS and AI
8.	B.Tech. (Electrical Engineering)	4	Electrical Engineering
9.	B.Tech. (Electronics and Communication Engineering)	4	Electronics and Communication Engineering
10.	B.Tech. (Energy Engineering)	4	Hydro and Renewable Energy
11.	B.Tech. (Engineering Physics)	4	Physics
12.	B.Tech. (Mechanical Engineering)	4	Mechanical and Industrial Engineering
13.	B.Tech. (Metallurgical and Materials Engineering)	4	Metallurgical and Materials Engineering
14.	B.Tech. (Production and Industrial Engineering)	4	Mechanical and Industrial Engineering
Integrated Dual Degree (IDD)			
Students of B.Tech programs at the end of 3rd year can opt to switch over to any of those M.Tech programs whose eligibility criteria are satisfied by their B.Tech. branch.			
SL.No.	**Program**	**Duration (in years)**	**Department**
BS-MS Program**			
1.	BS-MS (Chemical Science)	5	Chemistry
2.	BS-MS (Economics)	5	Humanities and Social Science
3.	BS-MS (Mathematics and Computing)	5	Mathematics
4.	BS-MS (Physics)	5	Physics
** Students can exit from the program after 4 years with BS degree			
Integrated Master of Technology (IMT)			
1.	Integrated M.Tech. (Geological Technology)	5	Earth Sciences
2.	Integrated M.Tech. (Geophysical Technology)	5	Earth Sciences

Structure of UG Programs

The four-year B.Tech. and B.Des. programs and five-year B.Arch. program comprise of courses divided into various areas, as given below:

SL. No.	Abbreviation	Course Area
1	ICC	Institute Core Course
2	PCC	Program Core Course
3	BSC	Basic Sciences Course
4	PEC	Program Elective Course
5	TM	Tinkering & Mentoring
6	ESC	Engineering Sciences Course
7	ESSC	Environmental Science and Sustainability Course
8	MC	Management Course
9	DSC	Data Science Course
10	HSSC	Humanities and Social Sciences Course
11	HSSEC	Humanities, Social Sciences Elective Course
12	CORE	Community Outreach Course
13	AI/ML	Fundamental Course of AI/ML
14	TEB	Talent Enhancement Course
15	OEC	Open Elective Course
16	NCE	Non-Credit Elements

The five-year Integrated Dual Degree, Integrated M.Tech. and BS-MS programs comprise courses other than the above program-specific courses, i.e., seminar and thesis.

Credits assigned to various constituents of the Undergraduate/BS-MS and Integrated M.Tech. Curriculum structures are given in Table-2. Credit and Curricular components for Institute core courses and Institute elective courses are given in the following Tables 3-4. The detailed program structures are available on the Institute Website (https://iitr.ac.in).

Institute Core Courses (ICC)

A UG student needs to complete few Institute core courses on Basic Sciences (BSC), Engineering Sciences (ESC) specific to the programs, Humanities and Social Sciences (HSSC), Fundamentals of Management (MC), Data Science (DSC), Tinkering & Mentoring (TM) and Environmental Science and Sustainability (ESSC). Different departments have participated in designing these courses so as to cater to the requirements of their programs with the parent departments. These courses are planned to give the students a firm base in the respective areas. These courses are presented in Table-3.

Program Core Courses (PCC)

The PCC consists of courses considered essential for a chosen engineering/science discipline, including laboratory courses. Further, it includes courses on Engineering Analysis and Design (Design Thinking based-project)/Industry Oriented Problem Solving/Lab Based Project/ Practical Problems/ Case Study and B.Tech. Project/Entrepreneurship/Project-based Internship. Fundamentals of AI/ML and the development of technical communication skills are an essential part of the curricular structure.

Open Elective Courses (OEC)

The Open Elective Courses are offered by different academic Department/Centre/School to the students. The students are free to select three courses from the OEC category, depending upon their interests and inclination.

Humanities and Social Science Elective Courses (HSSEC)

The HSSEC are the courses offered by the Department of Humanities and Social Sciences to the students. The students are free to select two courses from the HSSEC category, depending upon their interests and inclination.

Program Elective Courses (PEC)

The students are required to complete a number of Program Elective Courses offered by his/her parent department/centre/school. The students are free to select a number of courses as per their course structure.

Talent Enhancement Courses (TEB)

Each department offers baskets of practical oriented courses for skill development in relevant areas pertaining to their specializations. Students shall choose such courses to attain skill in a focused area, for example - 3D printing, material characterization, algorithm design, deep learning, supply chain management, cognitive psychology etc. The students are required to choose a basket from TEB courses and complete their TEB credit requirement from the same basket.

Community Outreach (CORE)

The UG curriculum contains a course of 2 credits on Community Outreach as a program core course, which may be offered in any semester during the third and fourth years of the program to provide/create opportunities for students to work with the society in the form of community development project/rural upliftment of the underprivileged etc. This may also be done in association with NGOs, local government bodies, boot camps etc., if required.

Minor Specialisation Courses (MSC)

The student desirous of excelling in some specialisation other than his/her own department may be allowed to take additional courses equivalent to 18-20 credits from that specialisation. These courses have been defined as Minor Specialisation Courses (MSC). These courses will have to be selected from a list of such courses (basket) offered by the departments/centres/school, however, the number of students in such courses may be restricted by the departments/centres/school concerned. On successful completion of the courses, the students will be given degree in the main discipline with minor specialisation in the other area. For example, the degree certificate will indicate B.Tech. in Civil Engineering with Minor Specialisation in Physics.

Departmental Honours Courses (DHC)

A student having CGPA>7.5 and desirous of honours degree in his/her discipline may be allowed to take additional courses equivalent to 18-20 credits from the discipline. These courses have been defined as Departmental Honours Courses (DHC) and the student has to select a list of such courses offered by the department. On successful completion of the courses, the student will be given degree in the main discipline with Honours.

Non-Credit Elements (NCE)

A student has to complete a minimum number of non-credit elements to complete the degree requirement. These elements have been introduced to develop the overall personality of the student. A student of a 4-year program is required to earn a minimum of 24 units, and a student of a 5-year program is required to earn a minimum of 30 units from NCE. The following are the components of NCE:

(a) Discipline

In order to inculcate a culture of discipline among the students, 'Discipline' has been introduced as an NCE component. A total of 8-16 units for a 4-year program, and 10-20 units for a 5-year program have to be earned for this component. Grades (in units) will be awarded by the Dean of Students' Welfare at the end of each academic year. Student's performance will be evaluated in each semester on 0-2 unit scale.

(b) N.C.C./N.S.O./N.S.S.

A student of 4-year/5-year program is required to join National Cadet Corps (NCC)/ National Service Scheme (NSS)/ National Sports Organization (NSO) in the first year and participate in the activities of the respective organization. A total of 4-8 units has to be earned for this component. Selection for N.C.C./N.S.O./N.S.S. is usually completed in a special session held during the Orientation Program for the first-year students, after their registration in the Institute. These activities will run in both semesters and will be evaluated in each semester, but units will be awarded by the Dean of Students' Welfare with the help of concerned Professor(s) Incharge of NCC/NSO/NSS at the end of the academic year. Student's performance will be evaluated in each semester on 0-2 unit scale.

(c) Internship (INT)

This activity will be coordinated by each department for their students. One week of internship is equivalent to 1 unit for the evaluation purpose. A student of a 4-year UG program is required to earn 8-24 units, and a student of a 5-year UG program is required to earn 10-32 units. These activities will run in both semesters and will be evaluated by the Department/School/ Centre throughout the program at the end of each academic year.

(d) Participation in Professional Development (PPD-1 & PPD-2)

A student is required to participate in professional development programs by industry experts/field experts during his/her 2nd year (PPD-1) and 3rd year (PPD-2). The programs will be coordinated by the departments for their students. A student of a 4-year UG program is required to earn 4-8 units, and a student of a 5-year UG program is required to earn 6-12 units. This will be evaluated by the Department/School/Centre and equivalency will also be decided by the Department/School/Centre.

Table-2a: Credits for Four-year UG (B.Tech.) Programs

Main Curriculum Components	Sub Components	Credits to be earned from different components	Minimum Credits to be earned from different components
Institute Core Course	Humanities and Social Science Course (HSSC)	5	52-58
	Humanities and Social Science Elective Course (HSSEC)	6	
	Management Course (MC)	3	
	Basic Science Courses (BSC)	12-20	
	Engineering Science Courses (ESC)	8-20	
	Data Science Course (DSC)	4	
	Environmental Science and Sustainability Course (ESSC)	3	
	Tinkering & Mentoring (TM)	4	
Program Core Course	Class Contact Core Courses (CCCC)	40-48	87-91
	Fundamentals of AI/ML	2	
	Engg. Analysis and design (design thinking based project)/Industry Oriented Problem Solving/ Lab based Project/ Practical Problem/ Case study	4	
	Technical Communication	2	
	BTP/Entrepreneurship/ Project-based internship/PEC*	6-10	
Program Elective Courses	Program Elective Courses (PEC)	22-26	
Talent Enhanced Basket	Talent Enhanced Basket (TEB)	6-8	
Open Elective Courses (OEC)	Open Elective Courses (OEC) Institutes Across the globe* / IITR	9-12	9-12
Community Outreach (CORE)	Community Outreach (CORE)	2	2
	Total Credits to be earned	**150-160**	
	Total Credits to be earned (For those who opt for degree with minor specialisation/ department honors course)	**168-180**	
Non-Credits Elements (NCE)	**Components**	**Maximum Units**	**Minimum Units**
	Discipline	16	8
	NCC/NSS/NSO	8	4
	Internship	24	8
	Participation in professional development program by industry experts / field experts (PPD-1 & PPD-2)	8	4
Minimum Non-Credits Units to be earned: 24			

Table-2b: Credits for Four-year UG (B.Des.) Programs

Main Curriculum Components	Sub Components	Credits to be earned from different components	Minimum Credits to be earned from different components
Institute Core Course	Humanities and Social Science Course (HSSC)	5	49
	Humanities and Social Science Elective Course (HSSEC)	6	
	Management Course (MC)	3	
	Basic Science Courses (BSC)	16	
	Engineering Science Courses (ESC)	8	
	Data Science Course (DSC)	4	
	Environmental Science and Sustainability Course (ESSC)	3	
	Tinkering & Mentoring (TM)	4	
Program Core Course	Class Contact Core Courses (CCCC)	47	95
	Fundamentals of AI/ML	2	
	Engg. Analysis and design (design thinking based project)/Industry Oriented Problem Solving/ Lab based Project/ Practical Problem/ Case study	4	
	Technical Communication	2	
	BTP/Entrepreneurship/ Project-based internship/PEC*	12	
Program Elective Courses	Program Elective Courses (PEC)	22	
Talent Enhanced Basket	Talent Enhanced Basket (TEB)	6	
Open Elective Courses (OEC)	Open Elective Courses (OEC) Institutes Across the globe* / IITR	9-12	9-12
Community Outreach (CORE)	Community Outreach (CORE)	2	2
	Total Credits to be earned	**155-158**	
	Total Credits to be earned (For those who opt for degree with minor specialisation/ department honors course)	**173-178**	
Non-Credits Elements (NCE)	**Components**	**Maximum Units**	**Minimum Units**
	Discipline	16	8
	NCC/NSS/NSO	8	4
	Internship	24	8
	Participation in professional development program by industry experts / field experts (PPD-1 & PPD-2)	8	4
Minimum Non-Credits Units to be earned: 24			

Table-2c: Credits for Five-year UG (B.Arch./BS-MS/Int. M.Tech.) Programs

Curriculum components and suggested ranges		B.Arch.		BS-MS		Int. M.Tech.	
Institute Core Course	HSSC	5	52-58	5	52-58	5	52-58
	HSSEC	6		6		6	
	MC	3		3		3	
	BSC	12-20		12-20		12-20	
	ESC	8-20		8-20		8-20	
	DSC	4		4		4	
	ESSC	3		3		3	
	TM	4		4		4	
Program Core Course	Class Contact Core Courses (CCCC)	74	128	52-62	127-133	52-62	127-133
	Fundamentals of AI/ML	2		2		2	
	Engg. Analysis and design (design thinking based project)/Industry Oriented Problem Solving/ Lab based Project/ Practical Problem/ Case study	4		4		4	
	Technical Communication	2		2		2	
	Thesis	12		16		16	
Program Elective Courses	PEC	18		32-40		32-40	
Talent Enhanced Basket	TEB	8		6-8		6-8	
Open Elective Courses (OEC)	OEC	9-12	9-12	9-12	9-12	9-12	9-12
Community Outreach (CORE)	CORE	2	2	2	2	2	2
Total Credits to be earned		**190-200**					
Total Credits to be earned (For those who opt for degree with minor specialisation/ department honors course)		**208-220**					
Non-Credits Elements (NCE)	**Components**	**Maximum Units**	**Minimum Units**	**Maximum Units**	**Minimum Units**	**Maximum Units**	**Minimum Units**
	Discipline	20	10	20	10	20	10
	NCC/NSS/NSO	8	4	8	4	8	4
	Internship	32	10	32	10	32	10
	Participation in professional development program by industry experts / field experts (PPD-1 & PPD-2)	12	6	12	6	12	6
Minimum Non-Credits Units to be earned: 30							

Table-3: Institute Core Courses for UG Programs

Curricular Component	Credits	Contact Hours/Week L	T	P	Total
(i) Humanities and Social Sciences (HSSC)					
1. Soft Skills	03	2	0	2	04
2. Indian Knowledge System	02	2	0	0	02
Total	**04**				
(ii) Basic Sciences (BSC)					
1. Mathematics-I	04	3	1	0	04
2. Mathematics-II (Module form)	04	3	1	0	04
3. Physics-I	04	3	1	(2/2)	04
4. Department specific course-I* (Optional)	03/04	-	-	-	03/04
5. Department specific course-II* (Optional)	03/04	-	-	-	03/04
(*from any science department)					
Total	**12-20**				
(iii) Environmental Science and Sustainability Courses (ESSC)					
1. Environmental Science & Sustainability	03	3	0	0	03
Total	**03**				
(iv) Engineering Science Courses (ESC)					
1. Department specific course-I	04	3	1	0	04
2. Department specific course-II	04	3	1	0	04
3. Department specific course-III (Optional)	04	3	1	0	04
4. Department specific course-IV (Optional)	04	3	1	0	04
5. Department specific course-V (Optional)	04	3	1	0	04
(*from any engineering department)					
Total	**8-20**				
(v) Management Course					
1. Fundamentals of Management	03	3	0	0	03
Total	**03**				
(vi) Data Science Course					
1. Data Science	04	3	1	0	04
Total	**04**				
(vii) Tinkering & Mentoring Course					
1. Tinkering & Mentoring	2	-	-	-	-
2. Basics of IP and Entrepreneurship	2	2	0	0	02
Total	**04**				

Table-4: Institute Elective Courses

	Credits	Contact Hours/Week L	T	P	Total
(i) Humanities and Social Sciences Elective Courses (HSSEC)					
1. Course from Humanities and Social Sciences	06	2	1	0	03
Total	**06**				
(ii) Open Elective Course (OEC)					
2. Courses from any Department/Centre/School	9-12	3	0/1	0	03/04
Total	**9-12**				

The complete list of Institute Elective Courses, both HSSEC and OEC, is given on the Institute website (www.iitr.ac.in) along with the detailed teaching schemes of all undergraduate programs. The student can select one course from each category from these baskets.

Course Coding

Each course (subject) of a program has a number of credits assigned to it, depending on the academic contents and weekly contact hours (lectures, tutorials and practical). Normally one credit is assigned to each lecture of one hour or one tutorial hour or two practical hours per week.

A course is identified by a course code designated by a string of alpha-numeric characters and a course title. In a course code, first two letters of the string indicate the Academic Department/Centre/School offering the course followed by 'I'/ 'E'/ 'B'/ 'O'/ 'C'/ 'L'/ 'S'/ 'P'/ 'T' usually indicating a course as given below and the last three numbers indicating the particular course:

I : Institute Core Course
E : Engineering Science Course
B : Basic Science Course
O : Open Elective Course
C : Program Core Course
L : Program Elective Course
S : Environmental Science & Sustainability Course
P : Project
T : Talent Enhancement Course.

The letters symbolising various Academic Departments/Centres/School offering courses are:

AM	Applied Mathematics & Scientific Computing	AR	Architecture and Planning
BE	Biosciences & Bioengineering	CH	Chemical Engineering
CE	Civil Engineering	CS	Computer Science and Engineering
CY	Chemistry	DA	Mehta Family School for DS & AI
DE	Design	DM	Disaster Mitigation & Management
DS	International Centre of Excellence for Dams	EC	Electronics and Communication Engg.
EE	Electrical Engineering	EQ	Earthquake Engineering
ES	Earth Sciences	HR	Hydro and Renewable Energy
HS	Humanities and Social Sciences	HY	Hydrology
IK	Indian Knowledge Systems	MA	Mathematics
MI	Mechanical and Industrial Engineering	MS	Management Studies
MT	Metallurgical and Materials Engineering	NT	Nanotechnology
PE	Polymer and Process Engineering	PH	Physics
PP	Paper Technology	PQ	Photonics and Quantum Communication Technology
SD	Semiconductor Design & Technology	SE	Sustainable Energy
SR	Sustainable Rural Development	SS	Space Science and Technology
TS	Transportation Systems	WR	Water Resources Development and Management

- The courses under BSC/ESC/ICC category are numbered with the prefix of the department code followed by 'B'/ 'E'/ 'I' indicating a course in Basic Science Category/Engineering Science Category/Institute Core Category. For example, the basic science course 'Fundamentals of Organic Chemistry' offered by the Department of Chemistry is coded as CYB-101.
- The courses under PCC category are numbered with the prefix of department code followed by 'C' indicating a course in Program Core Course Category. For example, the PCC course, 'Organic Chemistry-I, offered in first year Spring Semester is numbered as CYC-102.
- The courses under PEC category are numbered with the prefix of department code followed by 'L' indicating a course in Program Elective Course Category. For example, the PEC course, 'Bioinorganic and Biomimetic Chemistry, offered by Department of Chemistry is numbered as CYL-302.

Abbreviations and Notations

Credits: Cr

Teaching Engagements

- Every course follows some teaching schedule for which weekly contact hours are decided for delivering lectures, engaging tutorials and performing practicals.

L: Lecture T: Tutorial P: Practical

- In the syllabi, the information regarding number of course credits and contact hours per week is denoted as (For example):

Credits (L - T - P)

4 (3-1-0)/ (3-1-2/2)/ (3-0-2)

Weights for Course Evaluation

Evaluation of every course is based on the weights assigned to various components of the course curriculum. These components are designated as under:

CWS:	Class Work Sessional	PRS:	Practical Sessional
MTE:	Mid Term Examination	ETE:	End Term Examination
PRE:	Practical Examination		

In general, the relative weights assigned to different components of all the courses except for the courses of Department of Architecture and Planning, and Department of Design, are as given in the table below:

SL. No.	Course Type			Examination		Relative Weights				
	L	T	P	TH	PR	CWS	PRS	MTE	ETE	PRE
1.	3 or 2	1 or 0	0	Yes	-	20-35	-	20-30	40-50	-
2.	3 or 2	1 or 0	2/2	Yes	Yes/No*	15-30	20	15-25	30-40	-
3.	3 or 2	1 or 0	02	Yes	Yes/No*	10-25	25	15-25	30-40	-
4.	-	-	4 or 6	-	Yes	-	50	-	-	50

*The practical examination, if any, will be conducted in the last few lab classes.

Note: The weights of the courses of Department of Architecture and Planning, and Department of Design are available in their respective program structures.

An example is given below: '**MIC-101: Programming and Data Structure**' refers to a course offered by the Department of Mechanical and Industrial Engineering to the students of first year of B.Tech. (ME/PI) programs and is offered in the Autumn Semester.

SL. No.	Teaching Scheme		Subject Area	Credits	Contact Hours/ Week			Exam Duration (Hrs.)		Relative Weights				
	Subject Code	Course title			L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	MIC-101	Programming and Data Structure	PCC	4	3	0	2	3	0	10-25	25	15-25	30-40	-

Credit System

The Institute follows continuous evaluation through a credit system for all academic programs. The system offers flexibility to progress at a pace commensurate with the capabilities of a student, subject to minimum credit requirements. There is no annual/semester pass or fail. The evaluation system follows letter grades on a 10-point scale where the performance is measured in terms of weighted grade point averages (SGPA and CGPA). A student has to satisfy minimum earned credit requirements to be eligible for the award of degree (Table-2).

ORDINANCES FOR UNDERGRADUATE (UG) PROGRAMS

Short Title & Commencement	**1**	(1)	These ordinances shall be called the Ordinances for Undergraduate Programs, and will be applicable to four-year B.Tech., four-year B.Des., five-year B.Arch., five-year Integrated Masters, five-year Integrated Dual-Degree and five-year BS-MS (with exit policy) Programs of the Indian Institute of Technology Roorkee.
		(2)	These ordinances shall come into force with effect from such date as the Senate/ Board may fix in this behalf.
Definitions	**2**	(1)	**"ADA"** shall mean Associate Dean, Admission& IT Systems.
		(2)	**"ADC"** shall mean Associate Dean, Curriculum**.**
		(3)	**"ADE"** shall mean Associate Dean, Evaluation.
		(4)	**"Applicant"** shall mean an individual who applies for admission to any undergraduate program of the Institute.
		(5)	**"B.Arch."** shall mean the five-year Bachelor Degree in Architecture.
		(6)	**"B.Des."** shall mean the four-year Bachelor Degree in Design.
		(7)	**"BS-MS"** shall mean the five-year Bachelor-Master Degree in Science.
		(8)	**"B.Tech."** shall mean the four-year Bachelor Degree in Technology.
		(9)	"**Board"** shall mean the Board of Governors of the Institute.
		(10)	**"CAPC"** shall mean the Centre's Academic Program Committee.
		(11)	**"Casual Student"** shall mean a student who is registered for a degree in a recognized Institution/ University in India or abroad and is officially sponsored by his parent institute to avail laboratory and other academic facilities or for attending a formal set of courses of the Institute.
		(12)	**"CFC"** shall mean Centre's Faculty Committee.
		(13)	**"CGPA"** shall mean the Cumulative Grade Point Average.
		(14)	**"Council"** shall mean the Council of the Indian Institutes of Technology.
		(15)	**"Course"** shall mean a curricular component identified by a designated code number and a title.
		(16)	**"Course Coordinator"** shall mean a faculty member who shall have full responsibility for the course and coordinating the academic activities associated with that course, including examinations and the award of grades.
		(17)	**"Degree"** shall mean the Bachelor's degree viz. B.Tech. or B.Arch. or B. Des.; or the Integrated Master's degree. viz M.Tech.; or the Integrated dual degrees viz. B.Tech. and M.Tech.; or BS-MS, and such other degrees of the Institute as may be approved by the Board from time to time.
		(18)	**"DAA"** shall mean the Dean of Academic Affairs.
		(19)	**"DAPC"** shall mean the Departmental Academic Program Committee.
		(20)	**"DFC"** shall mean Department Faculty Committee
		(21)	**"DoSW"** shall mean the Dean of Students' Welfare.

		(22)	**"Faculty Advisor"** shall mean a faculty nominated by the Department/Academic Centre/School to advise a student on the courses to be taken by him/her and other matters related to the academic program.
		(23)	**"GEN-EWS"** shall mean the General Economically Weaker Section.
		(24)	**"Grade Moderation Committee"** shall mean the committee appointed by the Department/Academic Centre/School to moderate grades awarded by the Course Coordinators in different courses in a semester.
		(25)	**"IAPC"** shall mean the Institute Academic Program Committee.
		(26)	**"Institute"** shall mean the Indian Institute of Technology Roorkee.
		(27)	**"Integrated Dual Degree or IDD"** shall mean the five-year Integrated Dual Degrees, namely, B.Tech. (parent discipline) and M.Tech. (specialisation of any discipline) of the Institute.
		(28)	**"Integrated Master's Degree or IMT"** shall mean the five-year Integrated Master's Degree in Technology.
		(29)	**"JEE (Advanced)"** shall mean the Joint Entrance Examination (Advanced) for admission to undergraduate programs of all the IITs.
		(30)	**"JoSAA"** shall mean the Joint Seat Allocation Authority of all the IITs/NITs/IISc for admission of students to various academic programs through Joint Entrance Examination (JEE)**.**
		(31)	**"OBC-NC"** shall mean the other backward classes – non creamy layer as notified by the Government of India from time to time.
		(32)	**"PD"** shall mean the persons with different ability as specified by the Government of India from time to time.
		(33)	**"PG"** shall mean Post Graduate.
		(34)	**"PFC"** shall mean Program Faculty Committee.
		(35)	**"ScAPC"** shall mean the School Academic Program Committee.
		(36)	**"ScFC"** shall mean the School Faculty Committee.
		(37)	**"SC/ST'** shall mean the scheduled castes/scheduled tribes as notified by the Government of India from time to time.
		(38)	**"Scheme of Teaching and Examination"** shall mean the scheme of teaching and examination for a branch of study as approved by the Senate.
		(39)	**"SGPA"** shall mean the Semester Grade Point Average.
		(40)	**"Student"** shall mean a student registered for an academic program of the Institute.
		(41)	**"UCEED"** shall mean the Undergraduate Common Entrance Examination for admission to B.Des. program.
		(42)	**"UG"** shall mean Undergraduate including B.Tech., B.Arch., B. Des., IDD, Int. M.Tech. and BS-MS program.
		(43)	**"UGTA"** shall mean the Undergraduate Teaching Assistant**.**

Ordinances	**3**	(1)	The Institute shall offer UG programs and of such minimum duration as the Board may approve on the recommendation of the Senate either on its own or on the initiative of a Department/an Academic Centre/School, and/or on the direction of the Board/Council/Government of India, provided that the Institute Academic Program Committee (IAPC) shall recommend all such programs. Provided further that an interdisciplinary program may be proposed by a Department/an Academic Centre/School or by a committee appointed by the Director for the consideration of the IAPC, the Senate and the Board.
		(2)	The procedure for starting a new program, temporarily suspending a program or phasing out a program shall be such as may be laid down in the regulations.
		(3)	The minimum entry qualifications and the policy and procedure of admission to UG programs shall be such as may be specified by the JOSAA/Council/Government of India and/or laid down in the regulations.
		(4)	A UG student shall be required to earn a minimum number of credits through various curricular components like lectures/laboratory courses, project, etc. at the Institute or at such other Institutions as have been approved by the Institute. For a UG student, the thesis/project and other similarly designated academic activities shall have to be undertaken under the guidance of one or more supervisor(s) from the Institute. However, a UG student may be permitted by the DAPC/CAPC/ScAPC to carry out in full or part of his/her thesis/project outside the Institute. In such cases, an additional supervisor from the host Organization/Institute, if considered necessary, may be appointed by the DAPC/CAPC/ScAPC on the recommendation of the supervisor(s) from the Institute.
		(5)	A UG student shall be required to complete all the requirements for the award of the Degree within such period as may be specified in the regulations, including those credits earned at such other institutions as have been recognized by the Institute for this purpose.
		(6)	The date of initial registration of a student in a UG program shall normally be the date on which the student registers for the first time. This date shall be construed as the date of joining of the student in the program for all intents and purposes.
		(7)	A student shall be required normally to attend every lecture, tutorial and practical class. However, for late registration, sickness or other such exigencies, absence may be allowed as provided for in the regulations.
		(8)	A UG student may be granted such scholarship/studentship/ assistantship/stipend, etc. and awarded such prizes and medals as may be specified in the regulations in accordance with the directions of the Government of India and/or the decision of the Council/ Board from time to time.
		(9)	The procedure for the admission of a student to a UG program shall be such as may be decided by the JoSAA and/or as specified in the regulations; the casual students may be allowed access to academic programs in the manner as provided for under the regulations.

		(10)	In case all the reserved seats for SC/ST/PD category are not filled even with relaxed admission norms, the students in this category who satisfy certain minimum norms specified for this purpose may be offered admission to one-year preparatory program. On successful completion of the preparatory courses, these students may be offered admission against the unfilled quota of seats as provided for in the regulations.
		(11)	The procedure for the withdrawal from a UG program, rejoining the program, the award of grades and the SGPA/CGPA, the examination and all such matters as may be connected with the running of a UG program shall be such as may be specified in the regulations.
		(12)	The award of the UG degree to an eligible student shall be made in accordance with the procedure laid down in the regulations.
		(13)	A student admitted to a UG program shall abide by the “Standing Orders for Students” issued by the Institute from time to time. These standing orders shall deal with the discipline of the students in the Bhawans /Hostels, Departments/ Centres/School, the Institute premises and outside. The Standing Orders may also deal with such other matters as are considered necessary for the general conduct of the students, and co-curricular and extra-curricular activities. These Standing Orders shall be approved by the Director on the recommendation of the Dean of Students’ Welfare.
		(14)	The regulations for the UG program shall be framed by the IAPC, which shall be considered and approved by the Senate.
		(15)	In special circumstances, the Chairman of the Board may, on behalf of the Board, approve amendment, modification, insertion or deletion of an Ordinance, which in his opinion is necessary or expedient for the smooth running of a program, provided that all such changes shall be reported to the Board in its next meeting for approval.
		(16)	Notwithstanding anything contained in the above Ordinances, no regulations shall be made in contravention of the decision of the Board/ Council and/or the direction of the Government of India in regard to the duration of the UG program, the amount and number of scholarship/assistantship and the number of studentships and the procedure of admission and the percentage of students of various categories, viz. reserved (SC/ST, OBC-NC, PD, GEN-EWS) and unreserved categories.

REGULATIONS FOR THE UNDERGRADUATE PROGRAMS

Short Title & Commencement	**1**	(1)	These regulations shall be called the regulations for the UG programs of the Institute.
		(2)	These regulations shall come into force on such date as the Director may appoint on his behalf.
UG Program Structure	**2**	(1)	The list of currently offered UG programs and the broad program structures are given in Table-1, Table-2. The detailed program structures are available on the Institute website. The structure and program may be amended/modified in accordance with the decisions of the Senate and the Board.
B.Tech./B.Des./B.Arch. Programs	**3a**	(1)	The Institute may offer such undergraduate programs leading to Bachelor of Technology, B.Tech.; Bachelor of Design, B.Des.; and Bachelor of Architecture, B. Arch. as may be the degree approved by the Senate and the Board.
		(2)	The duration of UG programs leading to the degrees B.Tech. and B.Des. are of normally four years and for B.Arch., it is five years. However, the maximum duration for the B.Tech. and B. Des programs is six years, and for B.Arch., it is seven years, from the date of initial registration. The maximum duration of the program includes the period of withdrawal, absence and different kinds of leaves permissible to a student, but it shall exclude the period of rustication. The duration for the program may be altered in accordance with the decision of the Board/Council/Government of India.
Integrated Dual Degree Programs	**3b**	(1)	A student of a B.Tech. program at the end of 3rd year can opt to switch over to any of the M.Tech. programs whose eligibility criteria he/she satisfies. The conversion would require a minimum CGPA of 7.5 at the end of 3rd year and the consents of the DAPCs of the concerned Departments/Centers/Schools. On successful completion of the program, the student will get corresponding B.Tech. and M.Tech. degrees under the Integrated Dual Degree Programs (IDD).
Integrated M.Tech. Programs	**3c**	(1)	The Institute may offer a five-year Integrated Master's Degree, namely M.Tech. in different academic departments/centres of the Institute as may be approved by the Senate and the Board. On successful completion of the program, the student will get M.Tech. degree under the Integrated M.Tech. Program.
		(2)	The duration of an Integrated M.Tech. Program is normally five years and the maximum duration is seven years from the date of initial registration. The maximum duration of the program includes the period of withdrawal, absence and different kinds of leave permissible to a student, but it shall exclude the period of rustication. The duration for the Program may be altered in accordance with the decision of the Board/Council/ Government of India.

BS-MS Programs	**3d**	(1)	The Institute may offer such five-year BS-MS programs leading to Bachelor's and Master's Degree in Science, as may be approved by the Senate and the Board. Student may opt to exit the program with a BS degree after successful completion of four years.
		(2)	The duration of a BS-MS program leading to Bachelor's and Master's degree in science is normally five years and the maximum duration is seven years from the date of initial registration. The maximum duration of the program includes the period of withdrawal, absence and different kinds of leave permissible to a student, but it shall exclude the period of rustication. The duration for the Program may be altered in accordance with the decision of the Board/Council/Government of India.
Institute Academic Program Committee (IAPC)	**4**	(1)	The Institute Academic Program Committee (IAPC) shall be a sub-committee of the Senate, which shall consider all the academic matters recommended by the Departmental/Centre/School's Academic Program Committee (DAPC/CAPC/ScAPC) and coordinate the activities related to UG and PG programs. It shall also consider and recommend the broad framework and policies related to the UG and PG programs to the Senate.
Departmental/Centre/School's/ Program Faculty Committee (DFC/CFC/SFC/PFC)	**5**	(1)	There shall be a Faculty Committee consisting of all the faculty members of a Department/Centre/School, which may be called the Departmental/Centre/School's Faculty Committee (DFC/CFC/SFC). It shall be constituted by every Academic Department/Centre/School.
		(2)	The DFC/CFC/SFC shall be responsible for considering all the policy issues concerning academic and research programs of the Department/ Academic Centre/ School. The DFC/CFC/SFC shall formulate academic programs and courses as recommended by the DAPC/ CAPC/ ScAPC and DRC/CRC/ScRC to it and send its recommendation to the Dean, Academic Affairs for his consideration and necessary action.
		(3)	For an interdisciplinary program, a Program Faculty Committee (PFC) shall be constituted by the Dean, Academics Affairs and it shall look after all academic matters pertaining to that program. A Program Coordinator shall be appointed by the Director in consultation with the Dean, Academic Affairs and the Heads of the concerned Departments/Centres/School to look after all the administrative and academic matters related to the interdisciplinary program. The Program Coordinator shall exercise the functions of the Head of a Department/ Chairman, DAPC/CAPC/ScAPC for such a program.

Departmental/Centre/School's Academic Program Committee (DAPC/CAPC/ScAPC)	**6**	(1)	The Departmental/Centre/School's Academic Program Committee (DAPC/CAPC/ScAPC) shall be constituted by the DFC/CFC/SFC/PFC to look after all academic matters pertaining to the UG and PG programs offered by the Department/Centre/School. Where DAPC/CAPC/ScAPC does not exist, the functions of the DAPC/CAPC/ScAPC and its Chairman shall be performed by the Head of the Department/Centre/School in consultation with a Committee proposed by him and approved by the Dean, Academic Affairs, for this purpose, if necessary.
Phasing Out of a Program	**7**	(1)	The phasing out of any UG/PG program may be considered by the Senate on the recommendation of a DFC/CFC/SFC/PFC and the IAPC. A program may also be phased out by the Senate on the recommendation of the IAPC if the number of students registering for the program is less than 40% of the sanctioned intake of the students, consecutively for three years.
Starting a New Program	**8**	(1)	The Board may approve the starting of a new program or a modified program in lieu of the old phased-out program on the recommendations of the DFC/CFC/SFC/PFC, the IAPC and the Senate.
		(2)	A new program may be considered and recommended by the Senate to the Board for its consideration and approval. Such a proposal will be initiated by a Department/Academic Centre/ School through its DFC/ CFC/SFC/PFC and considered and recommended by the IAPC.
		(3)	An interdisciplinary program may be proposed by a Department /Academic Centre/School in consultation with other participating Department(s)/Academic Centre(s)/School(s), or by a group of Department(s)/ Academic Centre(s)/School(s), or by a Committee appointed by the Director, for the consideration of the IAPC and the Senate for their recommendation to the Board of Governors for obtaining its approval.
Semester System	**9**	(1)	The academic programs in the Institute shall be based on semester system: Autumn and Spring semesters in a year, with winter and summer vacations. A number of courses shall be offered in each semester.
		(2)	Each course shall have a certain number of credits assigned to it depending upon the academic load of the course assessed on the basis of weekly contact hours of lecture, tutorial and laboratory classes, assignments or field study and/or self-study.
		(3)	The courses offered in a semester shall be continually assessed and evaluated to judge the performance of a student.

Admissions	**10**	(1)	Admission to all UG programs, except B.Des., shall be through JEE (Advanced). The policy of admissions, the eligibility thereof and other issues pertaining to JEE (Advanced) shall be as laid down by JOSAA and/or directed by the Council/Government of India from time to time. Admission to B.Des. program shall be through UCEED.
		(2)	Foreign nationals either residing in India or abroad or Indian nationals residing abroad may be admitted to any UG program through JEE (Advanced). The policy of admissions, the eligibility thereof and other issues pertaining to JEE (Advanced) shall be as laid down by JOSAA and/or directed by the Council/Government of India from time to time.
Tuition Fee	**11**	(1)	The SC/ST/PD students shall get complete tuition fee waiver.
		(2)	The most economically backward students (whose family income is less than Rs. 1 lakh per annum) shall get full remission of the tuition fee.
		(3)	The other economically backward students (whose family income is between Rs. 1 lakh to Rs. 5 lakh per annum) shall get remission of 2/3rd of the tuition fee.
Refund of Fee	**12**	(1)	The fee and other charges deposited by a candidate seeking admission will be refunded if the student does not join the program and leaves the Institute by applying for refund on or before the date of registration. The Institute shall decide the amount to be refunded but no refund of fee shall be permissible to students who register for the program and leave thereafter. In such cases only the caution money will be refunded at the end of the semester.
Allotment of Branch/Program and its Change	**13**	(1)	The allotment of branch/program to a student shall be made at the time of counselling by JoSSA on the basis of merit according to the preference of the student and the availability of seats.
		(2)	A student admitted to a UG program, except those in B.Arch. and B.Des. programs, shall be eligible to apply for change of branch/program at the end of the Autumn Semester of the First year provided that the student satisfies the following criteria: (i) He/she has earned all the specified credits in the program structure at the end of the Autumn Semester. (ii) He/she has not failed in any course. (iii) He/she has not been penalized for indiscipline.
		(3)	The change of branch/program shall be strictly against the number of vacancies or 10% of the **sanctioned strength** of the branch/program to which the change in sought, whichever is higher.

		(4)	In making a change of branch/program, the resulting strength (number of students) of the branch/program from which the transfer is being made should not fall by more than twenty five percent of the **existing strength.**
		(5)	If a student of Branch/Program-A with SGPA X is denied change to Branch/Program-B because of rule 13(4), change to Branch/Programs-B cannot be offered to any other student having SGPA less than or equal to X (even from branches/programs other than Branch/Program-A). However, such students (from branches other than Branch/Program-A) can be offered a branch/program other than B. The students with SGPA equal to X but having higher JEE rank than the student of Branch/Program-A can, however, be allowed to move to Branch/Program-B.
		(6)	The eligible applicants should be allowed change of branch/program strictly on the basis of inter-se-merit as reflected in their SGPA. In case the SGPAs of more than one student seeking the change of branch/program are equal, their inter-se-merit shall be decided on the basis of their ranks in JEE (Advanced).
Academic Registration	**14**	(1)	Every student shall register in each semester on the scheduled date as per academic calendar till the completion of the degree.
		(2)	In case, a student is proceeding on summer internship, late registration may be allowed, by the Dean, Academic Affairs, only up to a maximum of 10 working days after the scheduled registration date without late registration fee. If the student does not register on scheduled date, the student has to pay late registration fee as per rule.
Faculty Advisor	**15**	(1)	There will be a Faculty Advisor for each student as appointed by the Head of the Department/Centre/ School, on the recommendation of DAPC/CAPC/ ScAPC, who will be responsible for advising the student for registration and other academic matters.
Course Coordinator	**16**	(1)	Every course offered by a Department/ Academic Centre/ School shall be coordinated by a Course Coordinator appointed by the Head of the Department/ Centre/School on the recommendation of DAPC/CAPC/ ScAPC. The Course Coordinator shall have full responsibility for the course. He/she shall coordinate with other faculty member(s) involved in that course for the academic activities associated with that course, including examinations and the award of grades.
Advisor, SC/ST Students of Preparatory Course	**17**	(1)	The ADE will perform the duties of Advisor for the SC/ST students of the Preparatory Course.

Subject Registration	**18**	(1)	Every student shall register for the courses that he/she wants to study for earning credits and his/her name will appear in the student list of each of these courses. No credit shall be given if a student is not registered for the course. The performance of a student in all the courses, for which he/she has registered, shall be included in his/her grade sheet.
		(2)	Registration for courses to be taken in a particular semester shall be carried out according to specified schedule. In-absentia registration may be allowed only in rare cases such as illness or any other contingency, at the discretion of the Dean, Academic Affairs.
		(3)	Under special circumstances, a student may be allowed late course registration by the Dean, Academic Affairs till a specified date.
		(4)	A student may register for a minimum of 14 credits and a maximum of 24 credits in a semester. But on the recommendation of the DAPC/CAPC/ScAPC, the Dean, Academic Affairs, may allow a student to register for a maximum of 28 credits for more than two semesters with no condition on CGPA for the first two time and with the condition CGPA>7.0 subsequently.
		(5)	A student may add or delete courses during the first ten days of the semester as per the Academic Calendar.
		(6)	The details of courses registered by the student shall be available on the online academic portal which shall be the official record of the courses registered.
		(7)	At the time of completing the registration form or any subsequent change in the registration, every student shall consult his/her Faculty Advisor. The Faculty Advisor shall advise the student in regard to the minimum and the maximum number of total credits to be registered for in the context of his/her past performance, backlog of courses, SGPA/CGPA and individual interest.
		(8)	A student can take up to 2 PECs (maximum 8 credits) from sister department(s), subject to the approval of the DAPCs of the concerned departments.
Minimum Number of Students Requirement for an Elective Course	**19**	(1)	An elective course in a Department/ Academic Centre /School shall run only if a minimum of 5 students registers for it in a semester whereas an Institute Elective/Open Elective shall run only if a minimum of 15 students registers for it in a semester. However, under special circumstances a course may run with fewer students too with prior permission of Dean, Academic Affairs.
Course Codes	**20**	(1)	Each course offered by the Institute shall be identified by a course code, normally consisting of a string of six alpha-numeric characters followed by a course title. The first two characters in a course code shall be capital

			letters identifying normally the concerned Department/ Academic Centre/School offering/ coordinating the course followed by 'B/E/I/C/S/L/P/O/T' indicating the course category. The next three characters are numerical digits: the first one normally specifies the year of study and the last two digits specify the course number and the semester in which the course shall be offered. Normally, odd number in the course code will indicate that the course will be offered in the Autumn semester, and the even number will indicate that the course will be offered in the Spring semester of the year. For all the UG programs normally, 100 series shall be for the courses in first year, 200 for the courses in the second year and so on. The seventh character may be used in few cases to differentiate courses of same nature. The first numerical digit for a preparatory course shall be zero.
Course Credits	**21**	(1)	Each course shall have an integer number of credits. The number of credits of a course in a semester shall normally be calculated as under:
		(2)	Lectures/Tutorials: One lecture/tutorial hour per week shall normally be assigned one credit.
		(3)	Practicals: Two laboratory hours per week shall be assigned one credit. However, for a course having two/three laboratory hours every alternate week, a maximum of one credit shall be assigned for practical component.
		(4)	Special courses like project, practical, project-based internship, thesis etc. in a UG program shall be treated as any other course and shall be assigned such number of credits as may be approved by the Senate.
Course Evaluation	**22**	(1)	A student shall be evaluated for his/her academic performance in a course through tutorials, practicals, homework assignments, term papers, field work, seminars, quizzes etc. as Class Work Sessionals (CWS) and Practical Sessionals (PRS); Mid Term Examination (MTE), End Term Examination (ETE), and Practical Examinations (PRE) as applicable according to the guidelines formulated for this purpose.
		(2)	The distribution of weights for each component shall be decided and announced by the Course Coordinator at the beginning of the course, subject to such stipulations as are given in the Scheme of Teaching and Examination for a given program.
		(3)	The criteria for evaluation of any course shall be declared in the first week of commencement of the classes. The department may consider the proposal of course coordinator to have open book examination of any course. If the DFC decided to have open book examination of any course, the same shall be notified to all concerned students at the beginning of the semester, with a copy to the Dean, Academic Affairs for information.

		(4)	The answers of the questions cannot be written in pencil in the answer scripts of MTE/ETE.
		(5)	Evaluation of answer scripts cannot be done in pencil.
		(6)	A student may go through his/her answer script of MTE/ETE and point out any discrepancy in its evaluation on a day fixed by the Course Coordinator.
		(7)	The Head of the Department/Centre/School shall ensure that ETE answer scripts are shown to the students before moderation, on a date to be specified and announced by the course coordinator. Further, the answer scripts are preserved by the course coordinator for six months after the examination, before handing over the same to departmental stock for disposal.
		(8)	The answer scripts of the ETE shall not be shown to a student after finalization of the grades by the Grade Moderation Committee.
		(9)	The practical/field training shall normally be evaluated through the quality of work carried out, the report submitted and presentation(s).
		(10)	The project shall be evaluated normally by seminar(s), quality of work carried out, project report, and the viva-voce examination(s).
Grading System	**23**	(1)	The academic performance of a student shall be graded on a 10-point scale following the guidelines given in Appendix-A1. The letter grades and their equivalent grade points are listed in Table-5.
		(2)	The letter grades awarded to a student in all the courses (except audit courses) shall be converted into the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), to be calculated by the procedures given in Appendix-A1 of these regulations.
		(3)	At the end of the program, a student with CGPA of 8.5 and above shall be awarded 'First Division with Distinction' and a student with CGPA between 6.0 and 8.5 shall be awarded "First Division".
		(4)	All the passing out students of a class shall be given ranks as "Rank XX in a class of YY students".
		(5)	The equivalent percentage of CGPA at the end of the program will be calculated as per the formula given below: Equivalent % = CGPA*10
		(6)	The transcripts will be issued to the students on the successful completion of their programs. On demand, the transcript may also be issued to a student as and when he/she requires it, on payment basis.

Courses of Special Nature	**24**		A UG program may contain the following courses of special nature in different curricula.
		Engineering Analysis and Design	
		(1)	The UG curriculum contains a course of 4 credits on Engineering Analysis and Design (Design Thinking based project)/ Industry Oriented Problem Solving/ Lab-based Projects/ Practical Problems/ Case Study as a program core course to carry out a design and/or fabrication type of project or laboratory course.
		Technical Communication	
		(2)	The UG curriculum contains a 2-credit program core course on Technical Communication.
		Self-Study Course	
		(3)	Students shall be allowed to take up self-study courses, subject to the following conditions: (i) A self-study course can be taken only if the student has failed in that course earlier. However, this condition may be relaxed if the student is in his/her final semester. (ii) Maximum two self-study courses can be taken in the entire duration of the program, with maximum one self-study course in a semester. (iii) The guidelines for the allocation and evaluation of a self-study course are given in Appendix-C1.
		UG Research Course	
		(4)	(i) UG Research Course (UGR-001) is a 3 credits research course. (ii) The students need to register for this course like any other course, and the credits for this course would be considered as extra credits. (iii) Evaluation will be carried out by a committee constituted by the DAPC of the Department in which the course has been carried out.
		Repeat Course	
		(5)	A UG student may repeat a course that he/she has already passed in any previous semester/year. (i) Only one course in the entire program can be repeated. (ii) The repeated course would be marked 'RP' (Repeated) in the earlier semester and the transcript for the semester in which the course is retaken would show the new grade even if it is lower than the previous one. (iii) The repeat course cannot be taken as a self-study course. (iv) The attendance requirement for lecture classes is waived off. (v) The transcript shall be revised with new grade and SGPA/CGPA after the repeat course.

Additional (Extra Credits/Audit) Course

(6) A student of a UG program may register in a few additional courses within prescribed limits either as audit courses or credit courses as advised by the Faculty Advisor. The guidelines for the allocation and evaluation of these courses are given in Appendix-C2.

B.Tech. Project/Entrepreneurship/ Project Based Internship

(7) A four-year UG program shall contain a 6-10 credit project as a program core course. The procedure for the conduct and evaluation of the project is given in Appendix-C3.

Seminar

(8) A five-year IDD/IMT program shall contain a 2-credit seminar as a program core course.

Thesis

(9) A five-year UG program shall contain a course 'Thesis' as a program core course. The procedure for the evaluation of this course is given in Appendix-C4-C6.

NPTEL Course

(10) A student of a UG program may register for an NPTEL course as per the guidelines given below:

1. The NPTEL courses for various programs can be taken as audit courses only. The NPTEL courses cannot be allowed in lieu of PEC/PCC/DHC/MSC/extra credit courses.

However, the NPTEL courses in lieu of PEC may be allowed to the students in the following cases:

(i) enrolled in exchange programs
(ii) enrolled in part-time
(iii) awaiting for only one course to be completed
(iv) on medical grounds etc.

Program	No. of courses/ Credits allowed	Remarks
UG	Up to 8 credits (max. 2 courses)	Courses should be approved by DAPC/ CAPC/ScAPC of the concerned department
PG	Up to 4 credits (max. 1 course)	Courses should be approved by DAPC/ CAPC/ ScAPC of the concerned department

2. The credit equivalence would be as follows:

Duration of course (hrs)	Credits
10	2
20	3
30	4

The evaluation procedure of the NPTEL courses is given in Appendix-C7.

		Tinkering & Mentoring	
		(11)	Tinkering – This is a project-based course to nurture creative abilities of students. Mentoring - To create awareness on Ethics, IPR, Entrepreneurship and Standardization.
		Talent Enhancement Basket	
		(12)	A UG program contains basket(s) of practical oriented skill development courses in relevant areas. Students may choose such courses to attain skill in a focused area.
		CORE	
		(13)	A UG program contains a course of 2-credit on Community Outreach, to provide/create opportunities for students to work with the society in the form of community development projects. This may also be done in association with NGOs, local government bodies, boot camps etc., if required.
		Non-Credit Elements	
		(14)	A student is required to complete a minimum number of non-credit elements to complete the degree requirement. These elements have been introduced to develop the overall personality of the student. (i) **Discipline:** This will be evaluated by the DoSW at the end of each academic year. Student's performance will be evaluated in each semester on 0-2 unit scale. (ii) **NCC/NSS/NSO:** This will be evaluated by the DoSW with the help of the concerned Professor(s) In-charge of NCC/ NSS/ NSO. Student's performance will be evaluated in each semester on 0-2 unit scale. (iii) **Internship:** This will be evaluated by the Department/ School/ Centre throughout the program at the end of each academic year. One week of internship will be equivalent to 1 unit. (iv) **Participation in professional development programs by industry experts/field experts** **(PPD-1 and PPD-2):** This will be evaluated by the Department/ School/Centre and equivalency will also be decided by the Department/ School/ Centre.
Grade Moderation Committee	**25**	(1)	The Head of the Department/Centre/School shall appoint a Grade Moderation Committee that consist of HoD, Chairman, DAPC/CAPC/ScAPC and Course Coordinator. If needed, HoD may nominate a few additional faculty members for this committee. For Institute level courses, having large number of students (>200), the Grade Moderation Committee will be formed by the Dean Academics in consultation with Course Coordinator(s) and concern HoD.

		(2)	The Grade Moderation Committee for the common courses of first year shall consist of all the Course Coordinators of the courses offered to the first-year students in a semester, with the ADE as the Chairman.
Scrutiny of Grades	**26**	(1)	A student may apply for scrutiny of grades to the Chairman, DAPC/CAPC/ScAPC, within the specified date. The Grade Moderation Committee may verify the entry of the marks from different components of evaluation and their addition. For the first-year common courses, the Chairman of the Grade Moderation Committee and the Course Coordinator shall constitute the Scrutiny Committee.
		(2)	In exceptional cases, the grade(s) of a student or a group of students may be scrutinized by a committee constituted by the Dean, Academic Affairs.
Unfair means and Plagiarism	**27**	(1)	All UG project reports/Master's thesis should go through a similarity check using appropriate software. With the help of supervisor, the candidate should address the similarities flagged by the software which merit corrective action. The guidelines as shown in Appendix-B1 shall be applicable for checking plagiarism.
		(2)	In case a student is found adopting or suspected of adopting unfair means before, during or after the examination; or lifting or copying of work(s) of someone else and inserting it in his, Project, Dissertation, or Report, etc. without proper acknowledgment, credit and reference, or plagiarizing the Dissertation/ Project/ Reports, etc., such penal action shall be taken by the Institute against the student as may be necessary and adequate to uphold the sanctity and integrity of the examination system and the credibility of the Institute.
		(3)	All such cases of unfair means and plagiarism shall be suo-moto taken cognizance of by the Institute Standing Committee appointed by the Senate for this purpose. Such cases may also be reported by any person, including invigilator(s)/ examiner(s) to the Dean, Academic Affairs and/or the Institute Standing Committee for its consideration. General Instructions for penal action for use of unfair means and plagiarism are given in Appendix-D1. The constitution of the Standing Committee to look into the cases of unfair means and plagiarism is given below: (i) Dean, Academic Affairs — Chairman (ii) ADoAA (Evaluation) — Member (iii) Concerned HoD — Member (iv) ADoSW (SW) — Member (v) Chairperson, IAEC — Member (vi) Concerned Course Coordinator — Member (vii) Gen. Secretary, UG (Academic) — Member

		(4)	For Class Work submissions, the Course Coordinator may report the matter to the concerned DAPC/CAPC/ ScAPC as the case may be. The DAPC/CAPC/ScAPC may, after considering the matter reported to it and after giving an opportunity to the concerned student(s) to explain their conduct, impose appropriate penalty, on the concerned student(s).
		(5)	Any case pertaining to purported to resorting to unfair means / plagiarism before and after the examination/ Dissertation etc. shall be dealt with by the Institute Standing Committee for dealing with the offence/ case. The penalty in such cases of unfair means / plagiarism which have been found to be true and (i) which have occurred before or after the examination, or partly before and during or during and after the examination; (ii) which have been detected after the examination/ declaration of the result/award of the degree; (iii) which have been reported or detected after a research paper report/note/communication has been published in a Research Journal/widely circulated magazine/proceedings of conferences/ seminar or a monograph or a book, and or any electronic device, shall be recommended by the appropriate committees of the Department/Institute Standing Committee, as the case may be. The imposition of any such penalty shall be at the discretion of the Director, who, after considering the full facts and the report on the matter (i) may impose the same penalty, (ii) may reduce the penalty, or (iii) may enhance the penalty as recommended by the committee.
Attendance, Absence, Leave and Withdrawals	**28**	(1)	All the students of a UG program are expected to be present in every lecture, tutorial, practical or drawing class scheduled for them.
		(2)	The course coordinator may evolve a suitable mechanism to recognize the regular attendance and the course coordinator, at discretion, can assign up to 10% of marks in the semester for attendance. However, it needs to be announced at the beginning of the semester and should be documented with a copy to the Academic Affairs Office.
		(3)	The attendance requirement for only lecture classes in a course would be waived off for the students who received ‘F’ grade and are repeating the course.
		(4)	If a student is reported absent, without information, from a course for more than two weeks by the Course Coordinator through Head of the concerned department, the Academic Affairs Office will issue a warning letter to the student with a copy to the concerned parents.
		(5)	If the student still continues to remain absent for another

			two weeks without information, the Academic Affairs Office will drop the name of the student from the course. The student's semester will be dropped in case of such absence from all the registered courses
Second Examination on Medical/ Other special circumstances	**29**	(1)	A student, who fails to appear in the Mid Term Examination due to sudden illness or mishap/ accident may be allowed to take another examination with the permission of DAPC/CAPC/ScAPC on the recommendation of concerned Course Coordinator. In case of medical reasons, his/her request should be supported by Medical Certificate duly signed by the CMO of the Institute Hospital. However, such request for a second examination for the Mid Term Examination should be submitted by the student to the concerned Chairperson, DAPC/CAPC/ScAPC through course coordinator within one week of the completion of the Mid Term Examination.
		(2)	If a student is permitted to represent IIT Roorkee in any competition during MTE, he/she may be allowed to take another examination with the permission of Dean, Academic Affairs on the recommendation of DoSW/ concerned DAPC/CAPC/ScAPC, provided his/her request is supported by appropriate documents. However, such request for second examination for the MTE should be submitted by the student within one week of the completion of the MTE.
		(3)	If a student is absent during ETE of a course due to medical reasons or other special circumstances, he/ she shall be awarded 'I' grade. Such a student should apply for second ETE through the Student's AIS portal within the timeline notified by AAO. In case of medical reasons, he/she may be allowed to take Second Examination with the permission of Dean, Academic Affairs on the recommendation of concerned DAPC/CAPC/ScAPC, provided his/her request is supported by Medical Certificate duly signed by the CMO of the Institute Hospital. In case of special circumstances, he/she may be allowed to take Second Examination with the permission of Dean, Academic Affairs on the recommendation of DoSW/ concerned DAPC/CAPC/ScAPC, provided his/her request is supported by appropriate documents. Second Examination shall normally be held along with the Re-examination of ETE.
		(4)	The application for Second Examination on medical grounds should be supported by a Medical Certificate duly signed by CMO of the Institute. If, however, a student is outside the campus at the time of illness or a mishap/ accident, his/her application should be supported by a Medical Certificate issued by a Medical Officer of the rank of the Deputy Chief Medical Officer or above, of the concerned District. The Institute reserves the right to accept or reject such an application and the decision of the Dean, Academic Affairs shall be final in

			this respect.
		(5)	In such cases of Second Examination of ETE (on medical/other special circumstances), a student shall be awarded one grade lower than the one which he/she would have otherwise obtained as per the procedures adopted for normal grading. The maximum grade point awarded will be eight (8). However, the grade point four (4) shall not be lowered.
		(6)	In special cases and on the specific recommendation of the Chief Medical Officer, a student may be permitted to appear in his/ her regular examination in the Institute Hospital.
Re-Examination	**30**	(1)	A student, who fails in a course in a semester, may apply for Re-Examination subject to certain conditions. Such a student should apply for Re-Examination through the Student's AIS portal within the timeline notified by AAO.
		(2)	Re-Examination will be allowed only if a student has not been disqualified earlier, because of unfair means.
		(3)	Re-Examination is not permissible for the self-study courses.
		(4)	A student is eligible to apply for Re-Examination to a maximum limit of two courses in a semester.
		(5)	A student will carry the marks obtained by him/her in the MTE, PRE, CWS, and PRS for the evaluation of the grades in Re-Examination.
		(6)	The highest-grade point that can be awarded in the Re-Examination shall be 'six (6)'.
Withdrawal from Course	**31a**	(1)	A student may apply for the withdrawal from a course in a semester through Student's AIS portal within the timeline notified by AAO.
Semester Withdrawal	**31b**	(1)	A student may apply to the Dean, Academic Affairs through Chairman DAPC/CAPC/ScAPC, for withdrawal from the semester, which shall mean withdrawal from all the registered courses in the semester. However, such application shall be made under the advice of the Faculty Advisor, as early as possible and latest before the beginning of ETE.
Semester Withdrawal on Medical Grounds	**31c**	(1)	In case the period of absence on medical grounds is more than twenty working days during the semester, a student may apply for withdrawal from the semester. However, as per provisions of Section 32b, application must be submitted to the Dean, Academic Affairs through Chairman DAPC/CAPC/ScAPC, under the advice of the Faculty Advisor, as early as possible and latest before the beginning of ETE.

<table>
<tr><td></td><td></td><td>(2)</td><td>Any application on medical grounds shall be accompanied with a medical certificate from Institute Medical Officer. A certificate from a registered medical practitioner containing the registration number may also be accepted in those cases where a student is normally residing off-campus or becomes ill while away from the Institute. Such medical certificates must be counter signed by the CMO of Institute Hospital.</td></tr>
<tr><td>Rustication/Suspension, Withdrawal from a Semester/Year</td><td>31d</td><td>(1)</td><td>A student rusticated from the Institute or suspended or debarred from the classes due to any reason whatsoever or having withdrawn from a semester/ year on medical grounds, shall have to complete the program within the maximum time limit of six years for a Four-Year UG program and seven years for a Five-Year UG Program, as specified in these regulations, excluding the period of expulsion, if any.</td></tr>
<tr><td rowspan="3">Academic Performance Monitoring and Slow Pace Program</td><td rowspan="2">32</td><td>(1)</td><td>A student shall be put on academic probation by the Dean, Academic Affairs, at the end of each semester for monitoring his/her academic progress under one or more of the following conditions:
(i) His/her SGPA becomes 5.00 or less
(ii) His/her SGPA is below that of the last semester by two points or more
(iii) The earned credits in a semester are less than 12.</td></tr>
<tr><td>(2)</td><td>The academic progress of all such students, who are put on academic probation, shall be monitored by Faculty Advisor and the Chairman, DAPC/CAPC/ScAPC of the concerned department/academic centre/school.</td></tr>
<tr><td></td><td>(3)</td><td>A student of 1st Yr shall be put on slow pace program at the end of Autumn Semester as per following criteria:
<table>
<tr><th>Criterion
(after re-exam/2nd exam)</th><th>Max No. of credits allowed</th></tr>
<tr><td>SGPA<4.00</td><td>16</td></tr>
<tr><td>4.00<SGPA<5.00 and fail in 1 course</td><td>20</td></tr>
<tr><td>4.00<SGPA<5.00 and fail in 2 or more courses</td><td>16</td></tr>
<tr><td colspan="2">Later on, in any semester, if the student is able to secure SGPA of 6.0, he/she shall be allowed to move to normal pace program</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td rowspan="4">Termination of Enrolment</td><td rowspan="4">33</td><td colspan="2">On Academic Grounds</td></tr>
<tr><td>(1)</td><td>The enrolment of a student in a program shall stand terminated if he/she fails to earn 14n credits in a semester, where, n is the number of semesters registered. It is to be applicable on the students from 3rd semester onwards.

The termination is subject to criteria as mentioned in table below:
<table>
<tr><th>Criterion</th><th>Action</th></tr>
<tr><td>First Time
Total Earned Credits (TEC) upto the current semester < 14n</td><td>Warning notice to the concerned student with a copy to parents & HoD.</td></tr>
<tr><td>Second Time
In immediate subsequent semester
(i) If TEC > 14n

(ii) If TEC ≤ 14n and credits earned in that semester ≥ 14

(iii) If TEC ≤ 14n and earned credits in that semester <14</td><td>

Student’s program continues and no warning is issued

Student’s program is continued but warning is issued

Student’s program will be terminated</td></tr>
<tr><td>At any time if SGPA ≤ 5 irrespective of earned credits</td><td>Warning to the student with a copy to parents.</td></tr>
</table>
Note: This will not include any extra credits such as for Minor Specialization Courses or Departmental Honours Courses.</td></tr>
<tr><td>(2)</td><td>The enrolment of a student may be terminated on disciplinary grounds, in accordance with the Standing Orders for the students.</td></tr>
<tr><td>(3)</td><td>A student whose enrolment has been terminated may appeal to the Director for reconsideration within 15 days from the date of issuance of the communication of termination. If the appeal is allowed/(accepted), his/her registration and enrolment shall be restored.</td></tr>
<tr><td>Earned Minimum Credits for the Degree</td><td>34</td><td>(1)</td><td>The credits for the courses in which a student has obtained grade point ‘four (4)’ (minimum passing grade for a course) or higher shall be counted as Credits earned by him/her. A student who has cleared all the courses (including non-credit elements) as prescribed for the degree, and completed the credit requirement of the program as specified in the UG curriculum he/she is registered for, is eligible for the award of the degree.</td></tr>
</table>

Transfer of Credits from any other institute for award of degree	**35**	(1)	Transfer of credits earned by the students from institutions in India and abroad which have an MOU with the Institute concerning this aspect (transfer of credits), shall be permitted.
		(2)	The students who have been nominated/ recommended by the Chairman, DAPC/CAPC/ScAPC and approved by DAA for pursuing study in such other institutions, will only be eligible for such transfer of credits.
		(3)	The equivalence of the courses for transfer of credits shall be based on the syllabi of the concerned courses of the host institution and recommended by the Chairman, DAPC on case to case basis for each student, and approved by the DAA.
		(4)	The credits earned in other institutes shall be transferred for the award of degree.
		(5)	The maximum permissible limit for transfer of credits will be 24.
		(6)	The courses, credits and grades earned will be indicated in the consolidate grade sheet/transcripts with the remark that the grades have been awarded by the host institution.
		(7)	The transferred credits and grades will not be considered towards the calculation of SGPA/CGPA.
		(8)	Grades earned in host institutions will not be considered for any award/ prize at the Institute.
Completion of Degree requirements of UG program one semester before program duration	**36**	(1)	A student of 4-year (5-year) UG program having CGPA more than 9.00 at the end of the 2nd year (3rd year) may be considered to be allowed to complete the degree requirement in 3½ years (4½ years).
		(2)	The request to complete the degree one semester before the program duration will be considered on the merit of the case by the Dean Academic Affairs on the recommendation of HoD.
		(3)	Such a student shall provide the detailed semester wise plan to complete the degree requirements at the time of application. There will be no rescheduling of classes by any department for this purpose.
Dean's and HoD's Appreciation Awards	**37**	(1)	The Dean's Appreciation Award is for achieving the highest increase in CGPA every year to student(s) of every UG Program, and HoD's Appreciation Award is for achieving the highest increase in SGPA every Semester to student(s) of every UG Program with the following conditions: (i) For Dean's Appreciation Award the minimum increase in CGPA is 0.5 (ii) For HoD's Appreciation Award the minimum increase in SGPA is 1.0

UG students as Teaching Assistant	**38**	(1)	3rd, 4th and 5th year UG students are eligible for becoming UGTAs. A department using UGTAs should have a process to select them from among the interested students. A UGTA is allowed to conduct tutorial classes of 1st year UG courses only. A UGTA is also allowed to conduct practical classes of the department specific 1st year UG course on Computer Programming. The concerned course coordinator should keep track of the performance of UGTAs involved in conducting tutorial/practical classes. At the end of the semester, students' feedback of such UGTAs should also be taken and shared with them. The responsibility for good and effective conduct of the course will be that of the concerned course coordinator.
Scholarships, Prizes and Certificates	**39**	(1)	The Institute shall award the Institute free studentship, SC/ST category institute scholarship and other scholarships, stipends, awards and prizes to the students of UG programs as may be approved by the Senate. Other scholarships may be instituted by grant from individuals, trusts, organizations and the Governments with a view to provide financial assistance to needy students under the terms and conditions specified by the Institute. Announcements of these scholarships, stipends, etc., along with their eligibility criteria, shall be made by the Institute time to time.
		(2)	A student registered for the fifth-year of the IDD/IMT program and who has cleared all the course work requirements up to fourth year of the program and (i) has a CGPA not less than 8.0, or (ii) has qualified GATE, may be offered Institute Assistantship on the basis of his/her attendance in the courses registered in a semester and his/her fulfilling the requirement of weekly work hours assigned to him/her. Sixty percent (60%) of the amount of scholarship/ assistantship shall be paid on the basis of monthly attendance of a student and the rest forty percent (40%) on the basis of weekly work hours assigned to him/her. The deduction from the scholarship/ assistantship due to absence in class or non-fulfilment of the weekly work-hours assignment shall be made on pro-rata basis.
		(3)	A student may draw scholarships/stipends from outside sources only if permitted by the competent authority.
		(4)	Those students who have been punished for unfair means, plagiarism or for serious act of indiscipline shall not be awarded Merit-cum-Means (MCM) Scholarship, Fellowship/ Assistantship/ and other trust scholarship or Medals, Prizes and awards for that academic session.
		(5)	The criteria for award of MCM scholarships, medals and awards are given in Appendix-E1.

<table>
<tr><td rowspan="3">Leave for Assistantship Holders Under IDD/IMT Program</td><td rowspan="3">40</td><td>(1)</td><td>Subject to his/her fulfilling the attendance requirements as detailed in Regulation 29 above, a student of IDD/IMT program who is a recipient of the Institute assistantship will be entitled for 30 days leave (including leave on medical grounds) during the fifth year of the program. He/she will not be entitled to mid semester breaks, and summer and winter vacations.</td></tr>
<tr><td>(2)</td><td>The leave will be subject to approval of the concerned Head of the Department/Academic Centre/School/ Program Coordinator.</td></tr>
<tr><td>(3)</td><td>The Department/Academic Centre/School/Program Coordinator concerned shall maintain a proper leave account of such students.</td></tr>
<tr><td>Casual Student</td><td>41</td><td>(1)</td><td>A student registered for degree in a recognized institute/ university in India or abroad may be allowed to attend classes and laboratories as a Casual Student, if sponsored officially by the institute/university where he/she is studying. However, the maximum period for which a Casual Student will be allowed to avail the facility shall not exceed six months. The guidelines for Casual Students are defined in Appendix-F1.</td></tr>
<tr><td>Exit Certificate</td><td>42</td><td>(1)</td><td>If a student wishes to exit the program, the exit certificate shall be issued to the student on his/her request, provided he/she has spent at least two years in the program and has earned a minimum of 48 credits.</td></tr>
<tr><td rowspan="2">Mechanism for considering Appeals/Requests</td><td rowspan="2">43</td><td>(1)</td><td>A student can submit the appeal/request to the Dean Academic Affairs through Head of the Department/ Centre/School along with the recommendations of DAPC/CAPC/ScAPC for the following categories:
(i) Continuation of program in spite of not fulfilling the minimum credits requirement.
(ii) Extension in duration of academic program beyond the permissible limit.
(iii) Attendance waiver.
(iv) Registration of credits beyond permissible limit.
The appeals/requests should be sent to the Dean Academic Affairs through Head of the Department/ Centre/School along with the recommendations of DAPC/CAPC/ ScAPC. The disposal of requests/appeals under various categories would be as per the following table.
<table>
<tr><th>Request/Appeal</th><th>Deciding Body</th></tr>
<tr><td>Category (i)</td><td>Senate</td></tr>
<tr><td>Category (ii)</td><td>IAPC: for extension up to 1 year
Senate: for extension beyond 1 year</td></tr>
<tr><td>Category (iii)</td><td>IAPC</td></tr>
<tr><td>Category (iv)</td><td>IAPC</td></tr>
</table></td></tr>
<tr><td>(2)</td><td>Second Mercy Appeal
The Chairman, Senate may constitute a committee to assess the admissibility of 2nd mercy appeals/requests for consideration if the first one has not been accepted by the Senate.</td></tr>
</table>

Interpretation of Regulations	**44**	(1)	In case of any dispute, difference of opinion in interpretation of these regulations or any other matter not covered in these regulations, the decision of the Chairman, Senate shall be final and binding.
Emergent Cases	**45**	(1)	Notwithstanding anything contained in the above regulations, the Chairman of the Senate may, in emergent situations, take such action including insertion, suspension or modification of any regulation(s) on behalf of the Senate as he/she deems appropriate and report it to the next meeting of the Senate for its approval.

Table - 5: Grading Scheme for Academic Performance

Grade	Grade Point
A+	10
A	9
B+	8
B	7
C+	6
C	5
D	4
F	0
AP (Audit Pass)	-
AF (Audit Fail)	-
I (Incomplete Grade)	-
X (Continued Project)	-
S (Satisfactory)	-
U (Unsatisfactory)	-

Explanation:

'F' Grade

The 'F' grade denotes failing a course. In case a student is awarded 'F' grade in a course, he/she may appear in re-examination as per Regulations 31(1)-31(6).

In case a student is awarded 'F' grade in a core course, even after re-examination, he/she shall have to repeat the course in a subsequent semester. For the other (elective) courses in which 'F' grade has been awarded, the student may take the same course or any other course from the same category. Further, 'F' grade secured in any course stays permanently on the grade sheet/transcript.

No student having 35% or more marks should be awarded the failing grade 'F'. However, for a student to get a grade 'D' or above in any course, he/she would have to appear in the ETE.

'AP'/'AF' Grades

These grades are awarded to an audit course as specified in Appendix-C2. These grades are not counted in the computation of SGPA/CGPA.

'I' Grade

This refers to an 'incomplete' grade, which is required to be converted into a regular letter grade as provided in Section 30 of Regulations for the UG programs. The guidelines for the award of 'I' grade are given in Appendix-A4.

'X' Grade

This grade is awarded for incomplete Project/ Dissertation work as per guidelines given in Appendix-A5 and will be converted to a regular grade on the completion of the Project work and its evaluation.

Calculation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)

The letter Grades awarded to a student in all the courses (except audit courses) shall be converted into semester and cumulative performance indices called the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), respectively, to be calculated as follows:

$$\text{SGPA} = \frac{\sum_{i=1}^{n}(C_i \times P_i)}{\sum_{i=1}^{n} C_i} \quad ,$$

where,

n represents the number of courses in which a student is registered in the concerned semester.

C_i = Number of credits of the i^{th} course of a semester for which SGPA is to be calculated

P_i = Grade point obtained in the i^{th} course.

$$\text{CGPA} = \frac{\sum_{i=1}^{m}(C_i \times P_i)}{\sum_{i=1}^{m} C_i} \quad ,$$

where,

m represents the number of courses in which a student has been registered till date.

C_i = Number of credits of the i^{th} course, up to the semester for which CGPA is to be calculated.

The CGPA shall be calculated taking all the courses registered till date, starting from the beginning. However, if the student has cleared a course in which he/she had backlog, the new grade will replace the old grade while calculating CGPA.

P_i = Grade point earned in i^{th} course.

General Guidelines for the Award of Grades

The following are the general guidelines for the award of grades:

(a) All evaluations of different components of a course shall be done in marks for each student.

(b) The marks of various components shall be scaled to approved weights as indicated in the scheme of Teaching and Examination and added to get total marks secured on a 100-points scale. The rounding off shall be done only once and on the higher side.

(c) Statistical system of grading is preferred for a class size of ≥ 30 students (Appendix-A2). Absolute grading system is preferred for a class size of <30 students (Appendix-A3). However, a faculty member has a choice of employing the more suitable of the two judiciously. The ranges suggested in Tables 6-7 can be adjusted depending on the natural gaps.

(d) Normally, 'A+' grade should be awarded to less than or equal to 10 per cent of students of the course. However, the grade moderation committee by consensus may allow it up to 15 per cent in exceptional cases. Approval of DAA is required to award more than 15 per cent 'A+' grade in a course.

(e) In the case a course is being offered to multiple batches, a committee consisting of all the faculty members teaching the course will finalize the grades before submission. The committee will be chaired by the Course Coordinator. If evaluation is not done uniformly across all batches, then normalization is required.

(f) The grade moderation is mandatory if the awarded grades deviate the Normal Gaussian distribution with minimum skewness in a course. The committee will consist of HoD, DAPC Chairperson and Course Coordinator. If needed, HoD may nominate a few additional faculty members for this committee. For institute level courses, having large number of students (>200), Grade Moderation Committee will be formed by the Dean Academics in consultation with Course Coordinator (s) and concern HoD.

(g) The Grade Moderation Committee for the common courses of first year shall consist of all the Course Coordinators of the courses offered to the first-year students in a semester, with the ADE as the Chairman.

(h) No student having 35% or more marks should be awarded the failing grade 'F'. However, for a student to get a grade 'D' or above in any course, he/she would have to appear in the ETE.

(i) After the re-examination, student can be given maximum '6' grade point, keeping the cut-offs same as before.

(j) The grades in Seminar, Project, Laboratory courses, NPTEL courses, and Thesis shall be awarded using Absolute Grading System as given in Appendix-A3.

(k) The procedures for evaluation and award of grades for project shall be as given in the Appendix C3.

(l) The Thesis shall be presented before an examination board for evaluation, as per the procedure given in Appendix-C4-C6. For Thesis and Seminar, each student will be evaluated individually and the grades shall be awarded by the examination board. The examination board may decide the cut-offs for different grades.

(m) In case there is no consensus in Grade Moderation Committee of particular subject, the case may be referred to a committee constituted by Dean Academic Affairs.

APPENDIX – A2

Statistical Method for the Award of Grades

The mean ($\bar{x}$) and the standard deviation (σ) of marks obtained of all the students in a course shall be calculated and used to convert the marks into normal variate (Z). The normalized marks (Z) shall be arranged in decreasing order to work out ranges for different letter grades.

$$Z = \frac{X - \bar{x}}{\sigma}, \qquad \text{where } X = \text{Actual marks obtained.}$$

The grade boundaries are left to the discretion of Grade Moderation Committee/Course Coordinator. The course coordinator, in consultation with the Grade Moderation Committee, may decide a suitable set of boundaries for a particular course for the award of grades. One possible set of boundaries for Z variate is mentioned in the Table-6 below:

Table - 6: Suggested Ranges for Grades Using Statistical Method

Lower Range of Marks	Grade	Upper Range of Marks
	A+	$> \bar{x} + 1.5\sigma$
$\bar{x} + 1.0\sigma <$	A	$\leq \bar{x} + 1.5\sigma$
$\bar{x} + 0.5\sigma <$	B+	$\leq \bar{x} + 1.0\sigma$
$\bar{x}$	B	$\leq \bar{x} + 0.5\sigma$
$\bar{x} - 0.5\sigma <$	C+	$\leq \bar{x}$
$\bar{x} - 1.0\sigma <$	C	$\leq \bar{x} - 0.5\sigma$
$\bar{x} - 1.5\sigma <$	D	$\leq \bar{x} - 1.0\sigma$
	F	$\leq \bar{x} - 1.5\sigma$

APPENDIX – A3

Awards of Grades Based on Absolute Grade System

Table-7: Suggested Ranges for Grades Based on Absolute Grade System

Marks	Grade	Marks
91 ≤	A+	≤ 100
82 ≤	A	≤ 90
73 ≤	B+	≤ 81
64 ≤	B	≤ 72
55 ≤	C+	≤ 63
46 ≤	C	≤ 54
35 ≤	D	≤ 45
-	F	≤ 34

APPENDIX – A4

Award of 'I' Grade

(a) If a student is absent during End Term Examination of a course due to medical reasons or other special circumstances, he/she may apply for the award of 'I' grade to the Chairman, DAPC/CAPC/ScAPC through the Course Coordinator. In case of extraordinary circumstances, the concerned Course Coordinator shall have to be convinced about the same to recommend the award of 'I' grade.

(b) The 'I' grade shall be converted into a proper letter grade as per the provisions in Regulation 30 after Second Examination is over and the requirements of the course are completed by the student.

(c) In extraordinary circumstances, on the recommendation of the Dean, Academic Affairs, the Chairman, Senate may order the award of 'I' grade to a student/class or a batch of students taking a particular course. The conversion of 'I' grade into a regular grade or any other action shall be as per the directive of the Chairman, Senate.

APPENDIX – A5

Award of 'X' Grade

A student who is unable to complete his/her Project/Thesis before the last date of submission may be awarded an 'X' grade on the recommendation of evaluation committee. 'X' grade will be awarded to a student only under exceptional circumstances beyond student's/ supervisor's control. If the department awards 'X' grade to a student, proper justification must be sent along with the grades.

If 'X' grade is awarded to a student, he/she is required to formally register for the next semester and pay the requisite fees. The student has to complete the work and present the work before the evaluation committee. The result will be declared whenever the result is received from the department during that semester.

APPENDIX – B1

Guidelines for Checking Plagiarism

A. Exclusion of material while checking

(a) All quoted material.

(b) Matches up to 20 words.

(c) All material (e.g., figures/ images and tables) used with the permission of the original source.

(d) Material published by students from the thesis/ dissertation.

(e) Bibliography.

B. Acceptance Levels

(a) Introduction and Literature review portion: commonality up to 20% may be accepted.

(b) Remaining material (e.g., Methodology, Results, Discussion, Conclusion and future research): commonality up to 10% may be accepted.

(c) Overall similarity index should normally not exceed 20%.

APPENDIX - C1

Guidelines for Allocation and Evaluation of Self Study Course

(a) A student cannot claim to take a course as a self-study course as a matter of right.

(b) Only a course from the list of regular courses of study for the program, which the student has not cleared and which is not being offered in that semester as a regular course, can be taken as a self-study course.

(c) The duration of the course will be a full semester.

(d) The student will apply for a course in self-study mode to Dean, Academic Affairs through course coordinator and the concerned Chairman, DAPC/CAPC/ScAPC well before the date of registration. The course will be offered only if Dean, Academic Affairs approves it.

(e) If the course is approved by Dean, Academic Affairs, a teaching load of 1 hour/week shall be counted in the time-table of the course coordinator.

(f) For a self-study course formal lectures are not mandatory, but laboratory, design, and tutorial exercises will be conducted if they form an integral part of the course. The course coordinator shall assign tutorial problems / laboratory exercises to the student and monitor his/her progress weekly.

(g) The MTE and ETE for the course will be scheduled by the Department like in other courses and the course coordinator will be responsible for the conduct of these examinations.

(h) For the award of marks, weights of different components will be the same as specified in the curricular structure.

(i) The final grade will be awarded on the basis of Absolute Grading System and there shall be no restriction on maximum grade to be awarded to any student in a self-study course.

(j) The grade moderation committee for the course will be the same as for other courses of the class.

(k) Normal attendance regulations will not apply to this course.

APPENDIX - C2

Guidelines for the Allocation and Evaluation of Additional Courses

(a) A student can register additional courses from 3rd semester onwards, (over and above the minimum credits specified for the program), within the permissible limit of credits in a semester. These courses can be either credit or audit in nature. It will not be counted towards minimum earned credits for the program.

(b) Students can be allowed to register for a maximum of 28 credits for more than two semesters on the recommendations of the Chairman, DAPC/CAPC/ScAPC with no condition on CGPA for the first two time and with the condition CGPA > 7.0 subsequently.

(c) The evaluation of a student, who has registered for the additional course(s), will be carried out in the same way as for other students registered in the course and his/her grade will be computed along with other students in the class. However, if he/she has registered this additional course as audit, his/her grade will be recorded in the grade sheet as an 'AP' (Audit Pass) grade if he/she obtains a 'D' or higher grade and 'AF' (Audit Fail) if he/she obtains 'F' grade.

(d) Normal attendance regulations, as prescribed by the Institute from time to time, will apply to additional courses.

APPENDIX - C3

Guidelines for Evaluation of B.Tech. Project

(a) This course will be offered in the final year of the B. Tech./B.Arch. /B.Des. program and its total duration as prescribed in the structure of particular program.

(b) Head of the Department shall appoint a Project Coordinator, who will act as the course coordinator.

(c) The project can be carried out by the students either individually or in a group. However, the number of students in a group will not exceed four.

(d) The Project Coordinator will invite proposals from the faculty members and students and finalize the project problems allotted to various groups.

(e) The finalization of title of project shall be done latest by the Mid-Term evaluation in Spring Semester.

(f) The evaluation will be based upon mid-term examinations and a final examination.

(g) The mid-term examination will involve report submission, presentation and oral viva-voce. For this purpose, suitable committees will be appointed by the Head of the Department/ Centre/School in consultation with Project Coordinator. The various examination committees will award marks to individual students and forward them to the Project Coordinator, who will maintain a record.

(h) The final project examination will be carried out by the above examination committee(s) within 10 days from the last theory paper.

(i) The students will be required to submit a final project report to Project Coordinator, at least 3 days before the date of final project examination.

(j) The final examination may be in the form of demonstration in the laboratory and viva-voce or only viva-voce, depending upon the nature of the project.

(k) The examination committee will award marks to individual students and forward them to Project Coordinator, who will compute grades in accordance with the prescribed procedures.

(l) The Grade Moderation Committee for the course will be the same as that for the other courses.

(m) In special circumstances, a student may be awarded ‘X’ grade, the conditions for which are given in Appendix-A5.

(n) In case a student has been awarded ‘F’ grade, he/she shall have to repeat the course in a regular semester.

(o) Normal attendance regulations will not apply to this course.

APPENDIX - C4

Procedure for the Evaluation of M.Tech. Thesis for IDD Students

(a) The topic of Thesis shall be allotted to a student in the Spring Semester of the fourth year of the program.

(b) Each student will be evaluated based on the thesis report, seminar(s)/other modes as decided by the Departments/Centres/Schools.

(c) The grade of the stage I should be mentioned satisfactory/ unsatisfactory in the transcript. The unsatisfactory grade will be awarded for marks less than 46%, and in such cases, stage I needs to be repeated. The evaluation marks of stage I shall not be carried forward for Thesis stage II.

(d) The final grade shall be awarded at the end of the semester and shall be used for the calculation of the overall CGPA. The grade of the thesis should be determined based on the combined evaluation of stage I (25% weightage) and stage II (75% weightage).

(e) The thesis evaluation board for stage l and stage II should be as given below:

(i) DAPC Chair's nominee from the same specialization – Chairperson

(ii) Two experts from a related field selected by the DAPC Chair from a panel proposed by the supervisor(s). The experts can be from outside the Department/Institute.

(iii) Supervisor(s)

The members of the board for evaluation of stage I and stage II will remain the same.

(f) A faculty should not chair the evaluation board for more than 10 theses.

(g) The soft copy of the report (stage I) and the thesis (stage II) should be sent to the members of the board at least one week prior to the date of evaluation.

(h) Stage-I evaluation

Distribution of marks (out of 100) to be decided by DAPC/CAPC/ScAPC within the range as under

a.	Report	10-25
b.	Presentation	10-25
c.	Viva-voce examination	10-25
d.	Supervisor(s)	40-60

(i) Stage -II evaluation

Distribution of marks (out of 100) to be decided by DAPC/CAPC/ScAPC within the range as under

a.	Thesis report	10-30
b.	Presentation	10-20
c.	Viva-voce examination	10-20
d.	Publication/Patent*	0-10
e.	Supervisor(s)	30-50

*Journals/Conferences/patent/any other work to be considered for awarding publication/ patent marks will be decided by the DAPC/CAPC every year.

(j) The DAPC/CAPC/ScAPC should declare the distribution of marks of the evaluation at the beginning of each academic year.

(k) The final grading should be performed using absolute grading system. The minimum passing grade point should be 5. If a student fails, then he should register for the next semester and be evaluated at the end of the semester.

APPENDIX - C5

Procedure for the Evaluation of BS-MS Thesis

(a) The topic of the Thesis shall be allotted to a student in the Spring Semester of the fourth year of the program.

(b) The Head of the Department, in consultation with DAPC Chair, shall appoint a Thesis Coordinator, who will act as the course coordinator.

(c) The Head of the Department, in consultation with DAPC Chair and Thesis Coordinator, shall appoint Thesis evaluation committee(s) according to different specializations.

(d) The members of the evaluation committee(s) of Thesis Stage I and Thesis Stage II will remain the same.

(e) The soft copy of the report (Thesis stage I) and the thesis (Thesis Stage II) should be sent to the members of the board at least one week prior to the date of evaluation.

(f) The thesis evaluation will involve report/thesis submission, presentation and oral viva-voce. The various evaluation committees will award marks to individual students and forward them to the Thesis Coordinator, who will maintain a record.

(g) The thesis evaluation will be carried out by the above evaluation committee(s) within 10 days from the last theory paper.

(h) The Thesis Coordinator should declare the distribution of marks of the evaluation at the beginning of each semester.

(i) The final grading should be performed using absolute grading system. The minimum passing grade point should be 4. If a student fails, then he/she should register for the next semester and be evaluated at the end of the semester.

APPENDIX - C6

Procedure for the Evaluation of IMT Thesis

(a) The topic of the Thesis shall be allotted to a student in the Spring Semester of the fourth year of the program.

(b) The Head of the Department, in consultation with DAPC Chair, shall appoint a Thesis Coordinator, who will act as the course coordinator.

(c) The Head of the Department, in consultation with DAPC Chair and Thesis Coordinator, shall appoint Thesis evaluation committee(s) according to different specializations.

(d) The members of the evaluation committee(s) of Thesis Stage I and Thesis Stage II will remain the same.

(e) The soft copy of the report (Thesis stage I) and the thesis (Thesis Stage II) should be sent to the members of the board at least one week prior to the date of evaluation.

(f) The thesis evaluation will involve report/thesis submission, presentation and oral viva-voce. The various evaluation committees will award marks to individual students and forward them to the Thesis Coordinator, who will maintain a record.

(g) The thesis evaluation will be carried out by the above evaluation committee(s) within 10 days from the last theory paper.

(h) The Thesis Coordinator should declare the distribution of marks of the evaluation at the beginning of each semester.

(i) The final grading should be performed using absolute grading system. The minimum passing grade point should be 4. If a student fails, then he/she should register for the next semester and be evaluated at the end of the semester.

APPENDIX - C7

Procedure for the Evaluation of NPTEL Course

(a) For grading, the marks obtained by the registered students of the Institute as per the procedure of NPTEL guidelines would be requested from NPTEL.

(b) The marks obtained by the student(s) would be normalized by maximum marks (obtained by student of any institute), and the grading would be carried out as per the absolute grading system of the Institute.

APPENDIX - D1

Instruction for Penalty for Use of Unfair Means

Reporting and Handling of Unfair Means Cases

(a) Any contravention of the instructions printed on the cover page of the answer book or informed in the examination hall by the invigilators or the use of any unfair means to write the answer will render the student liable for penal provisions.

(b) In case of unfair means being suspected by the invigilator, the reporting to the Dean of Academic Affairs will be carried out as per form UF-0 and the student will be allowed to complete the examination in the same answer script. Marking may be made in the answer script up to which the student has already written the answers when use of unfair means was reported.

(c) A Committee appointed by the Director shall enquire into cases of reported use of unfair means during the examination. The student will be given an opportunity to present his/her case before the committee. The committee shall decide the level of the offence (as per the Table) and submit its recommendation to the Director for consideration.

Penal Provisions for Using Unfair Means

<table>
<tr><th>Severity of Offence</th><th>Details</th><th colspan="2">Offence</th></tr>
<tr><td>Level – 1</td><td>During the examination, if a student is found verbally communicating with another student inside or outside the examination hall.</td><td colspan="2">If the student continues to talk after the first warning given by the faculty/invigilator in the same examination, the student may be stopped from writing for 15 minutes per offence by taking the answer sheet. If the student repeats it more than three times, then the answer sheet be taken and the student be asked to leave the examination.</td></tr>
<tr><td rowspan="2">Level - 2</td><td rowspan="2">(a) A student is found carrying prohibited item(s).* Or found transferring matter from any source</td><td>Offence-I</td><td>Offence-II</td></tr>
<tr><td>Zero marks to be awarded to the student in the concerned course component examination</td><td>If a student is caught carrying prohibited items repeatedly during any of the examination in a semester, then the student be given a course backlog in all the exams in which the student was caught carrying such items.</td></tr>
<tr><td></td><td>(b) Answer Script carried out of the examination room during or after the examination.</td><td>Backlog to be awarded in that course.</td><td>Semester Backlog i.e. the running semester will be dropped if the student repeats it in the examination of other courses too.</td></tr>
<tr><td>Level 3</td><td>Impersonation (Identity Mismatched)</td><td>• Semester Backlog in the running semester for both students.
• If the impersonating student is not a student of the Institute, then an FIR may be lodged.</td><td>Expulsion from the Institute.</td></tr>
</table>

***** Prohibited items like chits, electronic gadgets like tablets, mobile phone, smart watch & ear buds etc. (Not applicable to the exams conducted as Computer Based Test, subjective communicated to DAA).

* If mobile phone of a student is found in the premises of Lecture Hall Complex, it will be treated as Unfair means offence of Level-2.

- Cases not covered above to be dealt by the Standing Committee of Unfair Means.
- The severity of the offence (Level 2 or 3) will be decided by the committee based on the facts available.

Note: If the student repeats the offence beyond the 2nd offence the case would be considered under the offence of immediate next level. The levels are:

- Barring student to write for 15 minutes.
- Asking student to leave the examination room.
- Zero marks awarded in the concerned examination
- Backlog in the concerned course.
- Backlog in the ongoing semester.
- Expulsion from the Institute.

UF-0

UNFAIR MEANS USAGE REPORTING FORM
INDIAN INSTITUTE OF ROORKEE

PART - A
(To be filled by the Invigilator)

Note: A separate sheet should be used for each student.

1. Examination: **MTE / ETE / PRS** (strike through whichever is not applicable)
2. Enrolment No. of the student…….
3. Name of the student……...
4. Course Code …… Course Name ……..…
5. Day……..….Date……..Time…….……Location……...….
6. Student is caught under Level:

   ☐ Level I: During the duration of examination, if a student is found verbally communicating with another student inside or outside the examination hall.

   ☐ Level II: a) A student is found carrying prohibited item(s).

   ☐ Level II: b) Answer Script carried out of the examination room during or after the examination.

   Level III: Impersonation (Identity mismatched)

7. Proof attached along with brief description:

   ……

   ……

   ……

   ……

   ……

Date …… (Signature of the Invigilator-I)

Time …….. Name of the invigilator-I

(Signature of the Invigilator-II/witness)

Name of the invigilator-II/witness

PART - B

(To be filled by the student after the submission of the answer script at the end of the examination)

1. Response of the student:

   ...……

   ……...

   ……...

   …… ……..

Date……..

Time……. (Signature of the student)

Enrolment No.: ……

(Signature of the Invigilator)

APPENDIX - E1

Scholarships, Prizes, Medals, Awards

A. Institute Merit-Cum-Means (MCM) Scholarships

Merit-cum-Means Scholarship should be given to students as per the guidelines notified by the Institute time to time.

B. Medals & Awards

The following medals/prizes will be awarded to students for their academic/overall excellence.

B.1 President's Gold Medal

To be awarded to the student having the highest CGPA amongst the UG graduating students admitted though JEE.

B.2 Director's Gold Medal

To be awarded to the best all-rounder amongst the UG graduating students admitted through JEE.

B.3 Institute Silver Medal

To be awarded to the student having the second highest CGPA amongst the UG graduating students admitted though JEE.

B.4 Institute Bronze Medal

To be awarded to the student having the third highest CGPA amongst the UG graduating students admitted though JEE.

B.4 Department Gold Medals (One for each UG program)

One Department Gold Medal for each UG program offered by a Department/ Centre/School. The eligibility to get a Department Gold Medal is CGPA 9.0 or above. The eligibility to get a Department Gold Medal for the Department of Architecture & Planning is CGPA 8.5 or above.

APPENDIX – F1

Guidelines for Casual Students

The students from other institutions can be admitted as Casual students for both UG and PG courses as per following guidelines:

(a) The external students can carry out a part of course work/project work/thesis/ Ph.D. Thesis.

(b) These students can be admitted for a maximum duration of one semester.

(c) Any request from an external student shall be recommended by DAPC/CAPC/ScAPC/DRC/CRC/ ScRC, as the case may be. The Departments/Centres/School may impose a limit on the number of such students depending on the availability of resources in the Departments/Centres/School.

(c) These students will be allowed to do course work if there is a provision for the same in the MoU which IIT Roorkee has with academic/R&D institution to which student belongs.

(d) Only registered external students would be issued transcripts. These students will have to pay the Institute fee as applicable.