Indira Gandhi Delhi Technical University for Women
(Established by Govt. of Delhi vide Act 09 of 2012)
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Guidelines/Action Plan
for
National Education Policy
(NEP) 2020 @ IGDTUW

About NEP2020

National Education Policy (NEP) 2020 is a comprehensive framework for the transformation of the education system in India. The vision of NEP 2020 is to make India a global knowledge superpower. The policy aims to bring about several key changes and improvements in the education system. The policy envisions a transformed higher education system that is more flexible, multidisciplinary, and focused on research and innovation. It proposes the integration of vocational education and emphasizes the importance of critical thinking and creativity.

NEP 2020 aims to encouraging research, fostering a value for science, technology, innovation, society, and heritage. It advocates for a modular and flexible curriculum that allows students to choose from a variety of subjects and tailor their education based on their interests and career goals. It also promotes a multidisciplinary approach, encouraging students to explore a wide range of subjects rather than being confined to specific disciplines. This approach aims to instill a holistic understanding of various fields, fostering an appreciation for diverse knowledge areas.

The policy envisions a significant shift in the education system, emphasizing the need for a redesigned curriculum aligned with industry requirements and a focus on outcome-based learning. Salient points of NEP2020 are as under:

Flexibility in Curriculum: NEP 2020 advocates for a more flexible and multidisciplinary curriculum. This flexibility allows educational institutions to adapt their curricula to changing industry needs and emerging trends.

Vocational Integration: The policy emphasizes the integration of vocational education into mainstream curriculum, ensuring that students gain practical skills relevant to the industry.

Skill Development: NEP 2020 places a strong emphasis on skill development and aims to bridge the gap between education and employment by aligning the curriculum with the skills demanded by the industry.

Industry Academia Collaboration: The policy encourages collaboration between educational institutions and industries to facilitate internships, apprenticeships, and real-world projects, ensuring that students are exposed to the practical aspects of their chosen fields.

Critical Thinking and Innovation with Entrepreneurial Mindset: The policy aims to nurture critical thinking, creativity, and innovation by fostering an attitude of problem-solving and initiative among students. This re-orientation is crucial for preparing them to contribute meaningfully to the workforce and society.

Introducing Indian Knowledge System (IKS): Tradition, Culture and Values-combining indigenous knowledge and contemporary global developments, including research in science and technology.

Digital Education/Technology-Enabled Learning - Using technology and especially social technologies and social networks and open source technologies for flipped classroom, use of MOOCs/ SWAYAM/online courses, conferencing and web technologies.

Internationalization of Education, including cross-border credit transfer.

By emphasizing these principles, NEP 2020 aims to create a learning environment that not only imparts knowledge but also equips students with the skills and mindset needed for success in the rapidly evolving and dynamic job market.

NEP2020@IGDTUW

By keeping the true essence in mind, IGDTUW has prepared the Draft Guidelines for implementation of NEP2020 at the university. Various features of NEP2020 are customized as per the need of the University:

1. Multiple Entry / Exit Option

Exit Policy:

The students can choose to exit the four-year programme at the end of first/second/third year of their study.

i) **UG Certificate in (Field of study/discipline)** – A student who wish to exit after one year of study will be allowed to do so subject to the following conditions:

- She has earned the total credits of her first year as per the curriculum.
- She has also earned 02 additional credits by doing job-specific internship/apprenticeship of minimum 8 weeks either in the University or in Industry that would help the candidates acquire job-ready competencies

required to enter the workforce. Student can also earn these credits through online course (of minimum 8 weeks duration) from NPTEL/SWAYAM, if feasible, subject to the condition that the result of Course is declared before the declaration of the University result. Also, Department may run a 2 credit Skill Oriented Course (Finishing School) during the summer. Requisite training will be provided to enable them for professional career or continue their education in the discipline of their interest. In both the cases (NPTEL/SWAYAM online courses or Department run Courses), the Course will be recommended by the Department level Committee and will be approved by the concerned BoS.

The eligible candidates will be awarded UG Certificate in the relevant discipline.

ii) **UG Diploma (in Field of study/discipline)** - A student who wish to exit after two years of study will be allowed to do so, subject to the following conditions:

- She has earned the total credits of her first and second year of her study as per the curriculum.

- She has also earned 02 additional credits by doing job-specific internship/apprenticeship of minimum 8 weeks after 2nd year either in the University or in Industry that would help the candidates acquire job-ready competencies required to enter the workforce. Student can also these credits through online course (of minimum 8 weeks duration) from NPTEL/SWAYAM subject to the condition that the result of Course is declared before the declaration of the University result. Also, Department may run a 2 credit Skill Oriented Courses (Finishing School) during the summer. In both the cases (NPTEL/SWAYAM or Department run Courses), the Course will be recommended by the Department level Committee and will be approved by the concerned BoS.

The eligible candidates will be awarded UG Diploma in the relevant discipline.

iii) **Bachelor of Science (in Field of study/discipline)** i.e., **B.Sc. in (Field of study/discipline)**- A student who wish to exit after three years of study will be allowed to do so, subject to the following conditions:

- She has earned the total credits of her first, second and third year of her study as per the curriculum.

- She has also earned 02 additional credits by doing job-specific

internship/apprenticeship of minimum 8 weeks after 3rd year either in the University or in Industry that would help the candidates acquire job-ready competencies required to enter the workforce. The eligible candidates will be awarded B.Sc. Degree in in the relevant discipline.

Semesters	1	2	3	4	5	6	7	8	
Minimum Credits	21	42	63	84	105	126	147	168	184
Multiple Entry points	ENTRY		ENTRY		ENTRY				
Skill Development Programs (SSP)	Orientation Program	Finishing School/Internship	Bridge course, if required	Finishing School/Internship	Bridge course if required	Finishing School/Internship	Minor Project	Major Project/Internship	Finishing School/MOOC/Research
Degree/ Certification		Certificate		Diploma		B.Sc. Degree		B.Tech.	B.Tech. Honors
Multiple Exit Points		EXIT		EXIT		EXIT		EXIT	EXIT

Entry Policy

By using Academic Bank of Credits concept, a student from other Institute can earn few/remaining credits of her program from IGDTUW and vice versa. Following are proposed:

- Student may be admitted to the University as a Lateral Entry student after competing 1/2/3 years of study in her parent Institution/University. Admission will be done against vacant seats only in different programs.
- For getting the Degree from IGDTUW, student has to earn more than 50% credits of the Program from IGDTUW. If the student completes lesser credits, then these credits will be transferred to ABC and she will get the degree from her parent Institute.

- For giving admission to the student as Lateral Entry, a department level Equivalence Committee will be constituted who will examine the credits earned by the student in her earlier years. Based on the academic background and performance acquired in the previous certification/degree or professional experience gained between the exit and re-entry, Bridge Courses will be offered to enhance the capabilities. In case of lack of competencies, the student may be mentored to bridge the level of other existing students in the Program.

- To admit only the bright students from good institutions, the students who have completed their study from the Institution with NIRF Ranking below 200 or with at least NAAC 'A' Grade will be admitted. The student must be registered on ABC and her credits earned from previous Institutions are verifiable from ABC portal.

- The university will display the vacant seats in each Program for Lateral Entry and Admission Committee will admit the students as per laid policy and guidelines.

The maximum duration of the program including multiple exits will be 7 years for 4 year Programs, 5 years for 2 year programs and 8 years for 5 year programs.

2. Academic Bank of Credits (ABC)

The University has implemented Academic Bank of Credits (ABC) to promote flexibility in curriculum as per NEP 2020 to

   i) Provide option of mobility for learners across the universities/Institutions of their choice

   ii) Provide option to gain the credits through MOOCs from approved digital platforms.

   iii) Facilitate award of Certificate/Diploma/Degree in line with the accumulated credits in ABC

   iv) Execute Multiple Entry and Exit system with credit count, credit transfer and credit acceptance from students' account.

Every student of the University will get an APAAR Id where all the academic records of the students will be maintained.

3. Award of Degree

Choice Based Credit system (CBCS) shall be implemented for awarding the credits towards the completion of course. The students will earn credits for the registered courses. Once the student acquires sufficient credits of the Program, she will be awarded with the relevant certificate/diploma/degree.

In case of certain Programs, a student can also opt for Degree with Honors or Degree with Minor Specialization or Honors degree with Minor Specialization. Honors/Minor Specialization is to be completed simultaneously with Program.

Following program specific guidelines are proposed for awarding Degree with Honors or Minor specialization or both:

Program Name: B. Tech.

Option 1: B.Tech with Honors

i) Honors is introduced in the curriculum of all B. Tech. and MCA programs offering a major degree and is applicable to all B. Tech (Regular and Lateral Entry) students admitted in Engineering & Technology and MCA programs.

- BTech with Honors Degree will be awarded to the interested students after acquiring minimum additional 16 Credits offered by the parent Department only (in which the student is registered). These credits will be earned by the students within the 4 years of the program along with semester credits.

- Students who secure 7.5 CGPA and above (upto third semester) will have to show their willingness to their respective departments to pursue B.Tech Degree with Honors from 4th semester onwards and within the total 4 years of their B.Tech Program.

- Online courses from NPTEL/SWAYAM or any other agency offering online courses of minimum 12 weeks/40 hours duration can be considered for credit transfer for B. Tech. (Hons) in the same discipline. These courses will be identified/selected by the Department level Committee and will be approved by BoS/AC. These subjects should not be same as already studied/to be studied by the student either in previous semesters or in subsequent semesters.

- If a student fails in any course of the B. Tech. (Hons) Specialization, she shall be eligible to continue the B.Tech (Hons). However, she needs to earn all the

required credits before the completion of the Program i.e. 4 years in case of BTech. Extension in terms of earning the additional credits for getting Honors Degree will not be provided. If a student fails to earn these additional credits within the duration of the Program, she will get regular BTech Degree. B.Tech Degree with Honors will be awarded to those who secure minimum 7.5 CGPA and above after 8th semester (including the credits for their Honors subjects).

- If a student publishes a paper in an SCI/SCIE Indexed journal aligned with their specialization, it could be deemed equal to a 4-credit course. Paper will be authored by the concerned student along with her Mentor(s). Papers written by a group of students will not be considered. Further publications in SCI/SCIE journals may also be considered for an additional 4 credits. To avail the benefits of a published paper, it must be accepted before the end of the eighth-semester final examinations. For specific guidance on the relevance of research paper publication to a particular specialization, detailed guidelines may be offered by the Dean (IRD and R&C).

Option 2: B.Tech with Minor Specialization

- B.Tech Degree with Minor Specialization will be awarded to the interested students after acquiring 12 additional Credits offered by other Departments. These credits will be earned by the students within the 4 years of the program along with semester credits.

- Every Department will offer Minor Specialization for the students from other Departments and will provide a bucket of department run courses along with courses from NPTEL/SWAYAM (of minimum 12 weeks/40 hours duration) or any other Platform. For example, IT Department may offer Minor Specialization in Cyber Security by identifying online Courses from Cyber Security domain.

- Apart than online courses, if the same course is being run in the parent department for its BTech students as a regular course, the students from other department may study this course by attending the classes and can appear of the exams at the University for acquiring the credits. However, in such cases, Time Table need to be prepared to avoid the clash of classes with the regular classes.

- Students who secure 7.5 CGPA and above upto third semester will have to show their willingness to pursue Degree with Minor Specialization after 3rd

semester and onwards of their B. Tech Program.

For getting a B.Tech Degree with Minor specialization, students have to secure minimum 7.5 CGPA or above after 8th semester (including the credits for their Minor Specialization).

Option 3: B.Tech Honors with Minor Specialization

A student opting for both the options will have to complete the total requirements within the same timeframe (i.e. 16 credits from the parent Department for Honors Degree and 12 Credits from other Department for minor Specialization within a span of total 4 years only).

Program Name: MCA
Option: MCA with Honors

- MCA with Honors Degree will be awarded to the interested students after acquiring 12 additional Credits offered by the parent Department only (in which the student is registered). These credits will be earned by the students during their 2nd year of the program along with semester credits.

- Students who secure 7.5 CGPA and above after two semesters will have to show their willingness to pursue Honors Degree at the commencement of the 3rd semester of their Program.

- Online courses from NPTEL/SWAYAM or any other agency offering online courses (of minimum 12 weeks/40 hours duration) can be considered for credit transfer for MCA (Hons) in the same discipline. These courses will be identified/selected by the Department level Committee and approved by BoS/AC and should not be same as already studied/to be studied by the student either in previous semesters or in subsequent semesters.

- If a student fails in any course of the MCA (Hons) Specialization, she shall be eligible to continue the MCA (Hons). However, she needs to earn all the required credits before the completion of the Program i.e. 2 years. Extension in time of earning the additional credits for getting Honors Degree will not be provided. If a student fails to earn these additional credits within the duration of the Program, she will get a regular MCA Degree.

- If a student publishes a paper in an SCI/SCIE Indexed journal aligned with their specialization, it could be deemed equal to a 4-credit course. Further

publications in SCI/SCIE journals would also be considered for an additional 4 credits each. To avail the benefits of a published paper, it must be accepted before the end of the eighth-semester final examinations. For specific guidance on the relevance of research paper publication to a particular specialization, detailed guidelines may be offered by the Dean (IRD and R&C).

Additional Guidelines for Honors and Minor Specialization

(i) A student registered for Honors/Minor Specialization shall pass in all courses that constitute the requirement for the Honors degree program. No separate class/division (i.e., second class, first class and distinction, etc.) shall be awarded for Honors degree program.

(ii) If a student drops or is terminated from the Honors/Minor Specialization program, the additional credits so far earned cannot be converted into open or core electives; they will remain extra. However, such students may receive a separate grade sheet mentioning the additional courses completed by them.

(iii) The Honors will be mentioned in the degree certificate as Bachelor of Technology (Honors) in XYZ. For example, B.Tech. (Honors) in Mechanical and Automation Engineering. Similarly for Minor Specialization, students will get B.Tech in Mechanical and Automation Engineering with Minor Specialization in Cyber Security or B.Tech (Honors) in Mechanical and Automation Engineering with Minor Specialization in Cyber Security.

4. Course Curriculum
Salient Points

Student Induction program

There shall be mandatory student induction program for fresher students, with a three week duration before the commencement of first semester. Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Divisions, Centre of Excellences and Anveshan Foundation etc., are included as per the guidelines issued by AICTE.

Mandatory Courses

- Health/wellness/yoga/sports/Community service activities are included as credit courses for all the students.
- Courses like Environmental Sciences, Indian Constitution, Technical Paper Writing and IPR will be offered for all the undergraduate students.
- Design Thinking for Innovation is made mandatory as course for all the undergraduate students.

Mandatory Internships

Summer Internships: Summer internships either onsite or virtual each with a minimum of 6-8 weeks duration at the end of every Academic year are mandatory for all the students of UG and PG programs. It shall be completed in collaboration with local Industries, Govt. Organizations, Software Companies, NGO, Research Organizations or any industries in the areas of concerned specialization of the Undergraduateprogram. It is suggested that one of the two summer internships at the end of first yearor second year shall be society oriented and shall be completed in collaboration with government organizations/NGOs and others. The other internship at the end of third year is Industry Internship and shall be completed in collaboration with Industries.

MOOC Courses

UGC has allowed to offer up to 40 per cent of the syllabus of a programme in a semester online through the SWAYAM. On the same line, IGDTUW has made flexible provision for the students to choose the courses from SWAYAM/NPTEL and other approved agencies offering MOOC.

Few core and elective courses in each academic semester may be offered through MOOC. BoS of the concerned Faculty will approve these courses on the recommendation of the concerned Department. The scores obtained by the student in these MOOCs will be credited to their semester result. In case of any difference in the assessment method of MOOC and of the University, BoS will approvethe guidelines for mapping internal and external assessments of MOOCs to the University system.

Credit hours for different types of courses

Definition of Credit:

1 Hr. Lecture (L) per week	1 Credit
1 Hr. Tutorial (T) per week	1 Credit
2 Hours Practical (P) per week	1 Credit

In a semester of 13-15 weeks duration, a three-credit lecture course is equivalent to 40-45 hours of teaching.

Course Category
- Departmental Core Courses (DCC)
- Departmental Elective Courses (DC)
- Basic Science Courses (BAS)
- Skill Enhancement Courses (SEC)
- Interdisciplinary Courses (IDC)
- Ability Enhancement Courses (AEC)
- Value Added Courses (VAC)
- Internship
- Project

Total Credits: 168 (21 in each semester)

B.TECH

Credit Template

Semester	BAS	DCC	DEC	ID	AEC/VAC	SEC	PROJECT	S INTERNSHIP	TOTAL
1	8	4		3	3	3			21
					CSkills				
2	8	4		3	3	3			21
					PDevelop.				
3	3	8		3	3	3		1	21
					IKS				
4		11	4		3	3			21
			NPTEL		UHVI				
5		8	7		3	2		1	21
			4(NPTEL)+3		UHVII				
6		8	7	4	2				21
			4(NPTEL)+3	NPTEL	Elective				
7		4	8			3	4	2	21
8		3	8	2			8		21
			NPTEL	NPTEL					
Total	**19**	**50**	**34**	**15**	**17**	**17**	**12**	**4**	**168**

NPTL/MOOC **DEC** : **20**
ID : **06**
TOTAL : **26**   **15%**

		Teaching Scheme		
		BTech. First Semester		
SNo	**Type of Course**	**Subject**	**L-T-P**	**Credits**
1.	Basic Sciences	Applied Mathematics/ Probability and Statistics	3-1-0 3-0-2	4
2.	Basic Sciences	Applied Physics / Environmental Sciences	2-1-2	4
3.	Core	Department Specific Course	3-0-2	4
4.	Interdisciplinary	Courses offered by other Departments	2-0-2 1-0-4 3-0-0	3
5.	SEC	Department Specific	2-0-2	3
6.	AEC	Communication Skills	2-0-2	3
		Total		**21**

		Second semester		
SN	**Type of Course**	**Subject**	**L-T-P**	**Credits**
1.	Basic Science	Probability and Statistics/ Applied Mathematics	3-0-2 3-1-0	4
2.	Basic Science	Environmental Sciences/ Applied Physics	2-1-2	4
3.	Core	Department Specific	3-0-2	4
4.	Interdisciplinary	Courses offered by other Departments	2-0-2 3-0-0 1-1-2	3
5.	SEC	Department specific	2-0-2	3
6.	AEC	Soft Skills and Personality Development	2-0-2	3
		Total		**21**

List of Interdisciplinary Course (May be added by the departments)

S.N.	Interdisciplinary Core Course(Abbreviation)	Offering Department
1	Basics of Electrical and Electronics Engineering	Electronics & Communication Engineering
2	CAD Modelling	Mechanical and Automation Engineering
3	Engineering Mechanics	Mechanical and Automation Engineering
4	Workshop Practice	Mechanical and Automation Engineering
5	Cyber Security Awareness	Information Technology
6	IT Workshop	AI & Data Science
7	Applied Mechanics	Mechanical and Automation Engineering
8	Web Application Development	Information Technology
9	Introduction to Data Science	AI & Data Science
10	Introduction to Photonics	Applied Sciences & Humanities
11	Modern Physics	Applied Sciences & Humanities
12	Material Science & Engineering	Applied Sciences & Humanities
13	Optical Engineering	Applied Sciences & Humanities

Ability Enhancement Courses (AEC)

Course Code	Course Title	Offering Department
1	Spoken Skills in English	Applied Sciences & Humanities
2	Communication Skills	Applied Sciences & Humanities
3	Technical Communication	Applied Sciences & Humanities
4	Soft Skills and Personality Development	Applied Sciences & Humanities
6	Foreign Languages (Spanish, French, German etc.)	Applied Sciences & Humanities
7	Public Speaking	Applied Sciences & Humanities
8	Appreciation of Short Stories	Applied Sciences & Humanities
9	Appreciation of Poetry & Prose	Applied Sciences & Humanities
10	Appreciation of Fiction	Applied Sciences & Humanities

Skill Enhancement Courses (SEC) – Specific to the respective Department
(More relevant Courses will be added by the respective Departments/Industry)

SNo	Course Title	Offering Department
1	Engineering Graphics & CAD Modelling	MAE
2	Web Application Development	IT/CSE
3	Programming with Python	IT/CSE
4	Introduction to Data Science	AI & DS/IT
5	Signals and Systems	ECE
6	Mobile Application Development	CSE
7	Digital Color Calorimetry	ASH
8	Material Characterization Techniques	ASH
9	Bio-medical devices & applications	ASH
10	Engineering Graphics	MAE
11	MATLAB programming and Applications	ECE
12	Instrumental Methods of Analysis	ASH
13	Advanced Functional Materials	ASH
14	Renewable Energy Technologies	ASH
15	Digital Marketing	Management / Anveshan Foundation
16	Financial Statements Analysis	Management
17	Basics of Accounting	Management
18.	Entrepreneurship Development	Management / Anveshan Foundation
19	Waste Management	ASH

Value addition courses (VAC)

SNo	Course Title	Offering Department
1.	Universal Human Values 1: Self and Family	ASH/Management
2.	Universal Human Values 2: Self, Society and Nature	ASH/Management
3.	Professional Ethics & Human Values	ASH/Management
4.	Emotional Intelligence	/Management Anveshan Foundation
5.	Art of Happiness	REKHI Foundation/ Anveshan Foundation/ Management
6.	Corporate Governance and Business Ethics	Management
7.	Public Administration	Management
8.	Extension and Outreach Activities	ASH / IT/CSE/ECE/MAE/DAP
9.	Indian Knowledge System	Management
10.	History of Indian Architecture	Department of Architecture & Planning

B.Tech. – CSE (Artificial Intelligence)
First Semester

S No	Type of Course	Subject	L-T-P	Code	Credits
1.	Basic Sciences	Probability and Statistics	3-0-2	BAS 103	4
2.	Basic Sciences	Environmental Sciences	2-1-2	BAS 104	4
3.	DCC	Programming with Python	3-0-2	BAI 101	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		Cyber Security Awareness	3-0-0	BIT 101	
		Applied Mechanics	2-0-2	BMA 105	
		Web Application Development	2-0-2	BCS 102	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	IT Workshop	2-0-2	BAI 102	3
6.	AEC	Communication Skills	2-0-2	HMC 101	3
		Total			21

Second semester

S N	Type of Course	Subject	L-T-P	Code	Credits
1.	Basic Sciences	Applied Mathematics	3-1-0	BAS 101	4
2.	Basic Sciences	Applied Physics	2-1-2	BAS 102	4
3.	DCC	Data Structures	3-0-2	BCS 103	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		Cyber Security Awareness	3-0-0	BIT 101	
		Applied Mechanics	2-0-2	BMA 105	
		Web Application Development	2-0-2	BCS 102	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	Introduction to Data Science	2-0-2	BAI 103	3
6.	AEC	Soft Skills and Personality Development	2-0-2	HMC 102	3
		Total			**21**

B.Tech (Artificial Intelligence and Machine Learning)   **First Semester**

SNo	Type of Course	Subject	L-T-P	Code	Credits
1.	Basic Sciences	Probability and Statistics	3-0-2	BAS 103	4
2.	Basic Sciences	Environmental Sciences	2-1-2	BAS 104	4
3.	DCC	Programming with Python	3-0-2	BAI 101	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		IT Workshop	2-0-2	BAI 102	
		Applied Mechanics	2-0-2	BMA 105	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	Web Application Development	2-0-2	BCS 102	3
6.	AEC	Communication Skills	2-0-2	HMC 101	3
		Total			**21**

Second semester

SN	Type of Course	Subject	L-T-P	Code	Credits
1.	Basic Sciences	Applied Mathematics	3-1-0	BAS 101	4
2.	Basic Sciences	Applied Physics	2-1-2	BAS 102	4
3.	DCC	Object Oriented Programming	3-0-2	BIT 102	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		IT Workshop	2-0-2	BAI 102	
		Applied Mechanics	2-0-2	BMA 105	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	Introduction to Data Science	2-0-2	BAI 103	3
6.	AEC	Soft Skills and Personality Development	2-0-2	HMC 102	3
		Total			**21**

		B.Tech (Computer Science and Engineering) First Semester			
SNo	**Type of Course**	**Subject**	**L-T-P**	**Code**	**Credits**
1	Basic Sciences	Applied Mathematics	3-1-0	BAS 101	4
2.	Basic Sciences	Applied Physics	2-1-2	BAS 102	4
3.	DCC	Programming with C	3-0-2	BCS 101	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		Cyber Security Awareness	3-0-0	BIT 101	
		IT Workshop	2-0-2	BAI 102	
		Introduction to Data Science	2-0-2	BAI 103	
		Applied Mechanics	2-0-2	BMA 105	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	Web Application Development	2-0-2	BCS 102	3
6.	AEC	Communication Skills	2-0-2	HMC 101	3
		Total			**21**
		Second semester			
SN	**Type of Course**	**Subject**	**L-T-P**	**Code**	**Credits**
1	Basic Sciences	Probability and Statistics	3-0-2	BAS 103	4
2.	Basic Sciences	Environmental Sciences	2-1-2	BAS 104	4
3.	DCC	Data Structures	3-0-2	BCS 103	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		Cyber Security Awareness	3-0-0	BIT 101	
		IT Workshop	2-0-2	BAI 102	
		Introduction to Data Science	2-0-2	BAI 103	
		Applied Mechanics	2-0-2	BMA 105	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	Mobile Application Development	2-0-2	BCS 104	3
6.	AEC	Soft Skills and Personality Development	2-0-2	HMC 102	3
		Total			**21**

B.Tech (Electronics and Communication Engineering) \newline **First Semester**

SN	Type of Course	Subject	L-T-P	Code	Credits
1	Basic Sciences	Probability and Statistics	3-0-2	BAS 103	4
2	Basic Sciences	Environmental Sciences	2-1-2	BAS 104	4
3	DCC	Signals and Systems	3-0-2	BEC 102	4
4	Interdisciplinary	Programming Fundamentals	2-0-2	BAI 104	3
		CAD Modelling	0-2-2	BMA 102	
		Cyber Security Awareness	3-0-0	BIT 101	
		Web Application Development	2-0-2	BCS 102	
		Applied Mechanics	2-0-2	BMA 105	
		Introduction to Data Science	2-0-2	BAI 103	
5	SEC	Electronics Workshop	1-0-4	BEC 103	3
6	AEC	Communication Skills	2-0-2	HMC 101	3
		Total			**21**

Second semester

SN	Type of Course	Subject	L-T-P	Code	Credits
1	Basic Sciences	Applied Mathematics	3-1-0	BAS 101	4
2	Basic Sciences	Applied Physics	2-1-2	BAS 102	4
3	DCC	Network Analysis and Synthesis	3-0-2	BEC 104	4
4	Interdisciplinary	Programming Fundamentals	2-0-2	BAI 104	3
		CAD Modelling	0-2-2	BMA 102	
		Cyber Security Awareness	3-0-0	BIT 101	
		Web Application Development	2-0-2	BCS 102	
		Applied Mechanics	2-0-2	BMA 105	
		Introduction to Data Science	2-0-2	BAI 103	
5	SEC	IT Workshop	2-0-2	BAI 102	3
6	AEC	Soft Skills and Personality Development	2-0-2	HMC 102	3
		Total			**21**

B.Tech (ECE – Artificial Intelligence)
First Semester

SN	Type of Course	Subject	L-T-P	Code	Credits
1	Basic Sciences	Probability and Statistics	3-0-2	BAS 103	4
2	Basic Sciences	Environmental Sciences	2-1-2	BAS 104	4
3	DCC	Signals and Systems	3-0-2	BEC 102	4
4	Interdisciplinary	Programming Fundamentals	2-0-2	BAI 104	3
		CAD Modelling	0-2-2	BMA 102	
		Cyber Security Awareness	3-0-0	BIT 101	
		Web Application Development	2-0-2	BCS 102	
		Applied Mechanics	2-0-2	BMA 105	
		Introduction to Data Science	2-0-2	BAI 103	
5	SEC	Electronics Workshop	1-0-4	BEC 103	3
6	AEC	Communication Skills	2-0-2	HMC 101	3
		Total			**21**

Second semester

SN	Type of Course	Subject	L-T-P	Code	Credits
1	Basic Sciences	Applied Mathematics	3-1-0	BAS 101	4
2	Basic Sciences	Applied Physics	2-1-2	BAS 102	4
3	DCC	Network Analysis and Synthesis	3-0-2	BEC 104	4
4	Interdisciplinary	Programming Fundamentals	2-0-2	BAI 104	3
		CAD Modelling	0-2-2	BMA 102	
		Cyber Security Awareness	3-0-0	BIT 101	
		Web Application Development	2-0-2	BCS 102	
		Applied Mechanics	2-0-2	BMA 105	
		Introduction to Data Science	2-0-2	BAI 103	
5	SEC	IT Workshop	2-0-2	BAI 102	3
6	AEC	Soft Skills and Personality Development	2-0-2	HMC 102	3
		Total			**21**

B.Tech (Information Technology)
First Semester

SNo	Type of Course	Subject	L-T-P	Code	Credits
1.	Basic Sciences	Applied Mathematics	3-1-0	BAS 101	4
2.	Basic Sciences	Applied Physics	2-1-2	BAS 102	4
3.	DCC	Programming with Python	3-0-2	BAI 101	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		IT Workshop	2-0-2	BAI 102	
		Applied Mechanics	2-0-2	BMA 105	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	Web Application Development	2-0-2	BCS 102	3
6.	AEC	Communication Skills	2-0-2	HMC 101	3
		Total			**21**

Second semester

SN	Type of Course	Subject	L-T-P	Code	Credits
1.	Basic Sciences	Probability and Statistics	3-0-2	BAS 103	4
2.	Basic Sciences	Environmental Sciences	2-1-2	BAS 104	4
3.	DCC	Object Oriented Programming	3-0-2	BIT 102	4
4.	Interdisciplinary	CAD Modelling	0-2-2	BMA 102	3
		IT Workshop	2-0-2	BAI 102	
		Applied Mechanics	2-0-2	BMA 105	
		Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	
5.	SEC	Introduction to Data Science	2-0-2	BAI 103	3
6.	AEC	Soft Skills and Personality Development	2-0-2	HMC 102	3
		Total			**21**

		B.Tech Mechanical and Automation Engineering **First Semester**			
SNo	**Type of Course**	**Subject**	**L-T-P**	**Code**	**Credits**
1.	Basic Sciences	Applied Mathematics	3-1-0	BAS 101	4
2.	Basic Sciences	Applied Physics	2-1-2	BAS 102	4
3.	DCC	Elements of Mechanical Engineering and Workshop	3-0-2	BMA 101	4
4.	Interdisciplinary	Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	3
		IT Workshop	2-0-2	BAI 102	
		Introduction to Data Science	2-0-2	BAI 103	
		Web Application Development	2-0-2	BCS 102	
		Cyber Security Awareness	3-0-0	BIT 101	
5.	SEC	Programming Fundamentals	2-0-2	BAI 104	3
6.	AEC	Communication Skills	2-0-2	HMC 101	3
		Total			**21**
		Second semester			
SN	**Type of Course**	**Subject**	**L-T-P**	**Code**	**Credits**
1.	Basic Sciences	Probability and Statistics	3-0-2	BAS 103	4
2.	Basic Sciences	Environmental Sciences	2-1-2	BAS 104	4
3.	DCC	Engineering Mechanics	3-0-2	BMA 103	4
4.	Interdisciplinary	Basics of Electrical and Electronics Engineering	2-0-2	BEC 101	3
		IT Workshop	2-0-2	BAI 102	
		Introduction to Data Science	2-0-2	BAI 103	
		Web Application Development	2-0-2	BCS 102	
		Cyber Security Awareness	3-0-0	BIT 101	
5.	SEC	Engineering Graphics & CAD Modelling	0-1-4	BMA 104	3
6.	AEC	Soft Skills and Personality Development	2-0-2	HMC 102	3
		Total			**21**

Branch wise Distribution of Courses (B.TECH 1ST Year)							
Subject	**CSE-AI**	**CSE**	**IT**	**AIML**	**ECE**	**ECE-AI**	**MAE**
APPLIED MATHS	BAS	BAS	BAS	BAS	BAS	BAS	BAS
APPLIED PHYSICS	BAS	BAS	BAS	BAS	BAS	BAS	BAS
PROBABILITY AND STATS	BAS	BAS	BAS	BAS	BAS	BAS	BAS
ENV. SCIENCE	BAS	BAS	BAS	BAS	BAS	BAS	BAS
PROG WITH PYTHON	DCC		DCC	DCC			
IT WORKSHOP	SEC	ID	ID	ID	SEC	SEC	ID
APPLIED MECHANICS	ID	ID	ID	ID	ID	ID	
INTRO TO DATA SCIENCES	SEC	ID	SEC	SEC	ID	ID	ID
PROG. FUNDAMENTALS					ID	ID	SEC
PROG. WITH C		DCC					
WEB APPL. DEV.	ID	SEC	SEC	SEC	ID	ID	ID
DATA STRUCTURE	DCC	DCC					
MOB. APPL. DEV.		SEC					
CYBER SECURITY AWARENESS	ID	ID			ID	ID	ID
OOP			DCC	DCC			
BASICS OF ELECTRICAL AND ELECTRONICS ENGG	ID	ID	ID	ID			ID
SIGNALS AND SYSTEMS					DCC	DCC	
ELECTRONICS WORKSHOPS					SEC	SEC	
NETWORK ANALYSIS AND SYNTHESIS					DCC	DCC	
ELEMENTS OF MECH, ENGG AND WS							DCC
CAD MODELLING	ID	ID	ID	ID	ID	ID	
ENGG. MECHANICS							DCC
ENGG. GRAPHICS & CAD MODEL.							SEC
COMM. SKILLS	AEC	AEC	AEC	AEC	AEC	AEC	AEC
SOFT SKILLS AND PERS. DEV.	AEC	AEC	AEC	AEC	AEC	AEC	AEC

Course Category	No. of Courses	Total Credits
BAS	4	16
DCC	2	8
ID	2	6
SEC	2	6
AEC	2	6
TOTAL	**12**	**42**