Volume 2

NIRMA UNIVERSITY

INSTITUTE OF TECHNOLOGY

NAAC ACCREDITED 'A' GRADE

2021-2022

STUDENTS' INFORMATION BOOKLET

(General Information ITNU, Academic Rules & Regulations, Teaching and Examination Scheme)

प्रार्थना

या कुन्देन्दु तुषारहार धवला या शुभ्र वस्त्रावृता ।
या वीणा वर दण्ड मण्डितकरा या श्वेत पद्मासना ॥
या ब्रह्माच्युत शंकर प्रभृतिभिः देवैः सदा वन्दिता ।
सा मां पातु सरस्वती भगवती निःशेष जाड्यापहा ॥

श्लोक अर्थ - *जो विद्या की देवी भगवती सरस्वती कुन्द के फूल, चन्द्रमा, हिमराशि और मती के हार की तरह धवल वर्ण की हैं और जो श्वेत वस्त्र धारण करती हैं, जिनके हाथ में वीणा-दण्ड शोभायमान है, जिन्होंने श्वेत कमलों पर आसन ग्रहण किया है तथा ब्रह्मा, विष्णु एवं शंकर आदि देवताओं द्वारा जो सदा पूजित हैं, वही सम्पूर्ण जड़ता और अज्ञान को दूर कर देने वाली माँ सरस्वती हमारी रक्षा करें ।*

Meaning - Salutations to Devi Saraswati, Who is pure white like Jasmine, with the coolness of Moon, brightness of Snow and shine like the garland of Pearls; and Who is covered with pure white garments, Whose hands are adorned with Veena (a stringed musical instrument) and the boon-giving staff; and Who is seated on pure white Lotus, Who is always adored by Lord Brahma, Lord Acyuta (Lord Vishnu), Lord Shankara and other Devas, O Goddess Saraswati, please protect me and remove my ignorance completely.

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

PREAMBLE

The Handbook for students printed in two volumes (Volume–I and Volume –II) gives information about the Institute of Technology, Nirma University and detailed information about the undergraduate B.Tech programmes.

Handbook Volume – I contains general information about the Nirma University and an insight about the general administration of the Institute of Technology. It gives important information about general rules to be followed by the students on the campus, discipline and conduct rules of the University. It also gives information about the academic infrastructure, teaching learning process, student centric activities, general facilities and support available to the students on the campus.

Handbook Volume –II contains academic information of the Institute which includes the Academic Rules and Regulations regarding academic requirements and academic conduct of the students at the University including different policies and forms. Besides, it includes important information on registration, grading system, academic standards, attendance norms, discipline and the likes.

It is the responsibility of all the students to get themselves familiarized with the rules and regulations of the Institute and University.

The University / Institute reserves the right to amend the rules and regulations mentioned in the Handbook without any prior notice. The decision of the University shall be final on all the matters. For any further clarification, the Student Section may be contacted.

These Handbooks (Information Booklets) are for the purpose of providing information to the students about the University and its programmes and is not a Regulation book of the University. Hence, no claim can be made based on the information given in this book.

Dr. Rajesh Patel
Director (i/c)
Institute of Technology
Additional Director, School of Engineering

DIRECTOR'S MESSAGE

With great pleasure, I welcome you to one of the most reputed institutes of the country; an institute with a firm vision of the overall development of students, a place that will enrich you with technical and life skills and will provide the opportunity to compete with world-class students. The Institute is NAAC 'A' grade accredited in 2015 which endorses the quality standards followed in every aspect of education delivery. All the B.Tech Programmes are accredited by the National Board of Accreditation (NBA) under Tier-I category. Since its inception in 1995, Institute of Technology, Nirma University has upheld its vision of shaping a better future for mankind by developing effective and socially responsible individuals and organizations. In a short span of time, the Institute is recognized as one of the leading centre of higher education in the country. It is also known for the outstanding caliber of its students, well-qualified faculty dedicated to teaching and research and excellent infrastructure.

Institute aims to provide a learning environment that promotes excellence in academic and professional standards. The Institute is equally responsible for sensitizing its students towards societal activities, environmental sustainability and equal opportunity to nurture.

Keeping in mind the graduate skill-set desired by the industry, the Institute focuses on the teaching-learning process, curricula and evaluation away from lower-order thinking skills to higher-order skills. We at institute impart the experiential learning with a strong foundation of core courses with an interdisciplinary flavour along with supplementary courses aiming to hone thinking skills, such as design thinking, critical thinking, yoga, etc. The courses are designed and delivered in such a way that they add significant value to a student not only restricted to technology, but also core human values. The main focus of the institution is to empower students with sound knowledge, experience, and training so that they can achieve heights both at the academic level and highly competitive global industrial market respectively.

I once again welcome you, and wish you a bright future in your academic pursuit.

Dr Rajesh Patel
Director (i/c) Institute of Technology
Additional Director, School of Engineering

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1. General Information

ABOUT THE INSTITUTE

Founded on the vision of Padmashri Dr Karsanbhai K Patel, the Institute of Technology, Nirma University, earlier known as Nirma Institute of Technology, established in 1995, was the first self-financed engineering college in Gujarat.

The Institute is identified with robust academic programmes, quality teaching-learning process and overall personality development interventions of its students. A blend of the young and experienced faculty, committed to teaching and research and have proven to be the best mentors to budding engineers. The Institute offers multidisciplinary undergraduate, postgraduate and doctoral programmes in Engineering and Technology. An ethical, professional work culture discipline, and commitment to providing quality education are the hallmarks that define the Institute. The Institute is ranked 153 by the National Institute Ranking Framework (NIRF-2020) making its mark amongst four thousand plus engineering colleges in the country. The Institute figures in the top 15 self-financed colleges in the country and amongst top 3 in the state as positioned by top rated ranking agencies. The Institute is known for its prowess in the field of Artificial Intelligence and Machine Learning and has established a Centre of Excellence in Data Science in collaboration with the State University of Binghamton and another in Robotics and Automation. The Institute gives ample opportunities to its students and strives to equip our students in terms of providing the skills, ability and knowledge required for life-long learning and accolades.

Accreditation

The Institute of Technology is a constituent Institution of Nirma University. Nirma University and its constituent Institutions are accredited by National Assessment and Accreditation Council (NAAC), an autonomous institution of the University Grants Commission, Government of India with 'A' grade.

Institute of Technology, Nirma University takes pride in announcing that all its Under Graduate programmes are National Board of Accreditation (NBA) accredited under Tier-I category.

In a short span of time, the Institute is recognized as one of the leading centre of higher education in the country. In addition to offering robust academic programmes and quality teaching-learning process, the all-round development of students is planned through a blend of co-curricular, extra-curricular, societal and professional activities.

Over the years, the Institute has worked towards achieving excellence and is now known for –

- Excellent national reputation
- More than 150 companies enrolled for campus placements; excellent placement record across all branches
- Learner centric approach along with personalized attention to the students
- Focus on synergy between teaching and all-round development of the students
- Meritorious students with geographical diversity in undergraduate programmes

- Well placed closed-loop feedback system for curriculum development encompassing all the stake holders
- Globally compatible academic credit system with emphasis on continuous evaluation
- Well-disciplined conducive academic environment and ambience
- Active linkages with industries and research organizations
- Continuous emphasis on faculty and staff- development
- Strong commitment and dedicated efforts towards continuing education and pedagogy

The Institute also offers a wide range of choices to cater to the diverse interests of students and provide additional opportunities to fast learners. Some of the initiatives to that effect are –

- Interdisciplinary minors in Marketing, Finance, Robotics, Entrepreneurship Development, Design and more
- Minor in Computer Science and Engineering for students other than those pursuing BTech in CSE
- Large basket of Electives leading to specialization in a chosen area within the discipline
- Opportunity to work with faculty members on funded research projects from DST/ISRO/IPR and others
- Choice of Internship in the industry / foreign university or R & D organization for six months
- Value added courses like Design Thinking, Critical Thinking, ICT Tools, Cyber Security, Yoga & Meditation, Ethics & Values, Applied Literature and more
- Opportunities for Internship and enrolling in preapproved MS programmes in top-league US and Canadian universities such as University of Southern California, Iowa State University, Carlton University, Florida Atlantic University, etc.
- Funding and guidance for innovative ideas to promote start-up ventures
- Connect with the community through the community service programme

Campus attractions

Nirma University's sprawling 115-acre campus features significant flora reserves, well-designed buildings, a herbal garden, a host of playgrounds, and peppered amongst these are 21 monumental sculptures to give shape to the vision of the Nirma University to let students seek inspiration in Art. The natural surroundings provide an opportunity for visitors to visually engage and explore these sculptures at their own leisure.

Twenty one sculptors were engaged to carve out these masterpieces on the university campus. The project, unprecedented in many ways, is aimed to renew societal interest in public art. This is a massive vision, one that has the potential to go beyond the boundaries of the Nirma University.

Workshop curators, Mr Surya Goswami, a senior sculptor, and Mr Atul Padia, an independent Visual Artist mobilised expert sculptors from Nagpur, Mumbai, Haryana, Punjab, Banaras, Udaipur, Thane, Saputara, Ahmedabad, and Vadodara. They traversed mines in search of the right raw materials and picked rocks of 8 different types for carving them into gigantic sculptures. The workshop began on June 8, 2017, with more than 21 participants and 25 helpers equipped with all the necessary rasps and rifflers and ended on June 28, 2017, with hard rock converted into artistic masterpieces.

Sculptures at the Campus

One cannot miss out the Student statue at the entrance of the Nirma University. The statue has been created in Bronze in the year 2015. Weighing approximately 2400 kg, it is 11feet in length, 6 feet in width, and 10 feet in height made by Shri Ratilal Kansodaria (Ahmedabad). It represents a child who is studying.

Saraswati Statue

The statue was made by Pandey Moorti Bhandar (Jaipur) from pure white spotless Makrana marble. The height of the statue is 5 feet. One cannot miss out the serene and calm impact it offers as one enters the gates of the Institute of Management, Nirma University. As we all know, Saraswati is a symbol of learning, it is rightly installed at the University, the hub of learning. Saraswati Statue Both, these statues and the other sculptures installed later are a part of our learning ambience.

NETWORKING INITATIVES

Memorandum of Understanding (MoU) helps in creating a seamless opportunity to explore collaboration and interaction between the players. The Institute has always strived to develop connect with other Universities & organizations of repute. Institute of Technology, Nirma University has various MoU with a number of Universities & Organizations- nationally and internationally.

MoU with Foreign Universities

- The University of Dundee, UK
- Coventry University, UK
- Universidad Publica de Navarra Nafarroako
- Unibersitate Publikao, Spain
- Curtin University, Australia
- University of Newcastle, Australia
- Royal Melbourne Institute of Technology, Australia
- Carleton University, Canada
- Iowa State University, USA
- University of Southern California, USA
- USC Viterbi School of Engineering, USA
- University of Wyoming, USA
- Binghamton University, USA
- University of Georgia, USA
- Wadhwani Operating Foundation, USA
- Florida Atlantic University, Board of Trustees, USA
- Changwon National University, South Korea
- Universiti Teknologi MARA, Malaysia
- Makerere University, Uganda
- Kampala International University, Uganda
- University of Nairobi, Kenya
- Wolkite University, Ethopia

MoU with Educational Institutions / Research Organizations

- Central Building Research Institute, Roorkee
- Advanced Materials and Processes Research
- Institute (AMPRI), Bhopal
- National Chemical Laboratory (NCL), Pune
- ITER India, Gandhinagar
- Institute of Plasma Research, Gandhinagar
- Satellite Application Centre, Indian Space
- Research Organisation, Ahmedabad
- Ahmedabad Textile Industry's Research
- Association (ATIRA), Ahmedabad
- Physical Research Laboratory, Ahmedabad
- Central Salt and Marine Chemicals Research
- Institute (CSMCRI), Bhavnagar
- Sardar Patel Renewable Energy Research
- Institute (SPRERI), V.V.Nagar
- INS Valsura, Jamnagar, Gujarat
- Building Energy Efficiency Project (BEEP)

MoU with Industries

- E-Infochips, Ahmedabad
- NVIDIA for establishment of NU-NVIDIA Edge AI Lab.
- CONEVET Technologies, Ahmedabad
- Samyak Infotech Pvt Limited, Ahmedabad
- INS Valsura,Jamnagar, Gujarat
- J K Lakshmi Cement Limited
- Tata Motors Limited, Mumbai
- NORD Drive Systems Pvt Ltd, Pune
- Mitsubishi Electric India Pvt Ltd, Pune
- Secure Meters Limited, Udaipur
- INFOSYS Technologies, Bengaluru
- enti INNOVATIONS Pvt Ltd, Bengaluru
- Robert Bosch Engineering and Business
- Solution Pvt Ltd (RBEI), Bengaluru

RECRUITERS

- Accenture India Private Limited
- Adani Group
- Aditya Birla [Birla Cellulosic]
- Amtech Electronics (India) Limited
- Aqua Gel Chemical Private Limited
- Argusoft India Limited
- Asea Brown Boveri Limited [ABB]
- Asia Motors Private Limited
- ATUL Limited
- Bayer India Limited
- BGR Energy Systems Limited, Chennai
- Bhagwati Associates Pvt Limited
- Cadila Healthcare Limited
- Capgemini India Co Private Limited
- Caterpillar India Pvt Ltd
- Cinemeta Entertainment (India) Private Limited
- CMC Limited
- Cognizant Technology
- Solutions India Private Limited
- Crompton Greaves Limited
- CSSI [Computer Solutions & Software International]
- Cybage Software Private Limited
- Cyberverx Software Solutions Private Limited
- Deloitte Consulting India Private Limited
- Denag Cranes & Components India (P) Ltd
- DLF Limited
- Dolcera ITES Pvt Ltd
- DOLPHIN Steel
- Construction LLC
- Doshi ION Exchange & Chemical Industries Limited
- Dresser Rand India Private Limited
- eClinical Works
- Eicher Motors Limited
- E-Infochips Limited
- Elitecore Technologies Limited
- EMCO Limited
- Emerson Process
- Management (I) Private Limited
- Entity Solutions Limited
- Erhardt + Leimer (India) Limited
- Erricson India Private Limited
- Essar Limited
- ETA Engineering Private Limited
- Evolutionary Systems Pvt Ltd
- FAG Bearings India Limited
- Feast Software Private Limited
- Fiserv
- FLD Smith Limited
- Freescale Semiconductors Limited
- Future First Info Services Private Limited
- Galaxy Group
- Gammon India Limited
- Gannon Drunkenly & Co Limited
- Gateway Technolabs Private Limited
- GEA Process Engineering (India) Limited
- Geometrics Global
- GHCL Limited
- GIFT [Gujarat International
- Finanace Tech City Co Ltd]
- GMMCO Limited
- GNFC [Gujarat Narmada Fertilizer Valley Corporation]
- Godrej & Boyce Mfg Co Limited
- GSFC [Gujarat State Fertilizers Corporation]
- Gujarat State Petronet Limited
- Hewlett Packard India Sales Private Limited
- Hindustan Construction Company Limited

- Hindustan Uniliver Limited
- Hirel Electronics Private Limited
- Hitachi Home & Life Solutions (India) Limited
- IBM India (P) Limited
- ICICI Bank Limited
- IFB India Private Limited
- I-Flex India Private Limited
- I-many Software Private Limited
- Impetus InfoTech (India) Private Limited
- Indian Oil Corporation Limited
- Indian Rayon and Industries Limited
- Indusa Infotech Pvt Limited
- InfoStretch Solutions Pvt Ltd
- Infosys Technologies Limited
- Ingersoll Rand
- Intel India Pvt Limited
- Jacobs Engineering Private Limited
- JK Laxmi Cement
- JMC Projects India Limited
- Jubilant Organosys Limited
- Jyoti Limited
- KABRA Extrusion Technik Limited
- KAEFER Punj Llyod Limited
- Kalpataru Power Transmission Limited
- KEC International Limited
- Kothari Infotech Limited
- Linde Engineering Pvt Ltd
- Maharshi Electronics Private Limited
- Mahindra & Mahindra Limited
- Mahindra Gears & Transmissions Pvt Ltd
- Mechartes Researchers Pvt Ltd
- Microsoft India Private Limited
- Misys International Financial Services Private Limited
- Modiarc Electrodes Co Limited
- Mother Dairy India Limited
- Motorola India Private Limited
- Morgan Stanley
- National Instruments Systems (India) Private Limited
- Neilsoft Limited
- NIELSEN
- Nirma Limited
- NK Shah Consulting Eng.
- Nokia Siemens Limited
- nVidia Graphics Pvt Limited
- Oracle India Private Limited
- Pacific Pipe Systems Private Limited
- Pankaj Patel Associates
- Patni Computer System Limited
- Philips Limited
- PMI
- Prima Automation India Private Limited
- Real Soft (Intl) Private Limited
- Reliance Industries Limited
- Reliance Infocomm Limited
- RFID-Radio Frequency Identification
- Sabarmati Gas Limited
- SABIC Innovative Plastics India Pvt Ltd
- Samyak InfoTech Private Limited
- Sasken Communication Technologies Limited
- Satyam Computer Services Limited
- Schneider Electric India Private Limited
- Secure Meters Limited
- Shapoorji Pallonji & Co Limited
- Sheladia Associates
- Shriram Alkali & Chemicals
- SHV Energy Private Limited
- Siemens Limited
- Solu-Soft India Private Limited
- ST Microelectronics Private Limited
- Synopsys (India) Private Limited
- Syntel Limited

- Tata Autocomp Limited
- Tata Chemicals Limited
- Tata Consultancy Engineers Private Limited
- Tata Consultancy Services Limited
- Tata ELXSI LimitedTata Motors Limited
- Tata Power Company
- Limited
- Tata Teleservices Limited
- Teach for India
- Tech Mahindra Limited
- Thermax Limited
- Thorogood Associates
- Torrent Pharmaceuticals Limited
- Torrent Power [AEC] Limited
- Transpek Industries Limited
- TVS Motor Company
- Ultratech Cement Limited
- Unigraphics Software
- Unikaihatsu Software Private Limited
- UPL Environmental
- Engineers Limited
- UST Global
- Vardhman Acrylics Limited
- Vavni Services Private Limited
- VC-ERP Consulting Private Limited
- Vedanta Resources
- Veeral Controls Private Limited
- Viraj Profile Limited
- Vodafone India Private Limited
- Wellspun India Limited
- Wipro Limited
- Zensar Technologies Limit
- Zeus Systems Private Limited

PLACEMENT CELL (III CELL)

The Institute of Technology emphasises the importance of linkages at national and international levels in order to cater to the core areas of research and development in the form of transfer of technology, curriculum development, continuing education programmes, testing and consultancy, development of industrial manpower, expert lectures by industry experts, students' projects, Industrial visits, internships, training and placement, student and faculty exchange etc. With this view in mind, the Industry Institute Interaction Cell (III Cell) was envisaged to be a dedicated cell for Industry Institution Interaction facilitating all the training, career counselling and placement related activities.

Infrastructure and Amenities

The III cell is fully equipped with all modern amenities. The rooms are air-conditioned and equipped with multimedia and audio-visual equipment to facilitate effective interaction. Additionally, the following facilities are also available for Recruiters on campus:

- Dedicated access to Computer Lab for conducting online tests
- Air-conditioned halls for presentations
- Conference Rooms
- Interview Rooms
- Skype/Video Conferencing
- Internet/Wi-Fi access
- Guest House for Corporate Visitors
- Food Court
- ATM Facilities
- Health Club and Gym

Training and Career Counselling

III Cell organises periodic training/workshops to orient students about industry expectations. Additionally, students undergo soft skills training to improve learning in areas like Communication, Resume writing, Presentation Skills, Group discussions and Personal Interviews. Counsellor at Institute level also assists students to address career aspirations.

Campus Placements

On Campus Placement Process is organised by inviting leading organisations from diverse fields. To be a part of the socioeconomic development of the nation and to strengthen the vision of our institution, professional and growth-oriented organisations, we lay emphasis on Institute–Industry interaction during

the placement process, which ensures a mutually beneficial outcome. This process enables students to explore new avenues while laying the foundations of their careers. On the one hand it helps in placing students in their aspirational sectors and on the other it helps organisations avail the best talent available in the campus.

Industrial Training for the Students

Training is an integral part of learning. It makes them industry ready to face the real world problems. Students are placed at various industries for a period 6 to 8 weeks and under supervision and guidance of respective industry personnel. Students also go to Industry for full time projects in 8th Semester. The faculty guide is assigned during the same for regular monitoring and evaluation.

INFORMATION ABOUT ALUMNI ASSOCIATION

Nirma University Alumni Forum

We, at Nirma University, are proud of our Alumni and the difference they have made to the world around them. Their contributions have been acknowledged by organizations and institutions as they have marched ahead creating value and opportunities on the way. With more than 2000 members joining the group every year, the alumni network with about 15000 members currently is growing stronger year on year.

The University has constituted 'Nirma University Alumni Forum' with the objective to foster continuous engagement of the alumni with their Alma mater and to draw their expert knowledge in the relevant fields to further enhance, strengthen and reinforce the over-all quality of the constituent Institutes of the University.

Nirma Institute of Technology Alumni Association (NITAA)

NITTA has been established by Nirma Institute of Technology for the contacts with Alumni and subsequent interaction with students and institute faculty. At active participation of Alumni members is the strength of NITAA. It is note worth that the Alumni are spread all across globe for higher studies as well as for jobs. The representatives of NITAA is mentioned as below:

No	Name	Role	Department	Email	Contact Number
1	Dr. Rajesh Patel	President	-	director.it@nirmauni.ac.in	079-71652503
2	N P Gajjar	Sr. Vice President	EC	nagendra.gajjar@nirmauni.ac.in	9429628309
3	Ketan Patel	Vice President	CE	ketanpatel.rcapl@gmail.com	9898016908
4	S V Jain	(I/c) Secretary	CE	sanjay.jain@nirmauni.ac.in	9998623087
5	S V Jain	Jt. Secretary	ME	sanjay.jain@nirmauni.ac.in	9998623087
6	Tejas Joshi	Treasurer	CL	tejas.joshi@nirmauni.ac.in	94271588447
7	Vidita Tilva	Board Member	IC	vidita.tilva@nirmauni.ac.in	9099886595
8	Parita Oza	Board Member	IT	parita.prajapati@nirmauni.ac.in	9979883690
9	Pooja Shah	Board Member	CE	pooja.shah@nirmauni.ac.in	9825434173
10	Bhupendra Fataniya	Board Member	EC	bdfataniya@nirmauni.ac.in	9725064335
11	Amit Patel	Board Member	EE	amit.patel@nirmauni.ac.in	9327679379

12	Tejas Raval	Board Member	ME	tejas.raval@nirmauni.ac.in	9879487080
13	Smita Agrawal	Board Member	MCA	smita.agrawal@nirmauni.ac.in	987911611
14	Nikita Choksi	Board Member	CH	nikita.chokshi@nirmauni.ac.in	8460387987
15	Dhaval Shah	Board Member	EC	dhaval@nessa.in	9825650354
16	Neeraj Shah	Board Member	IC	er.niraj.shah@gmail.com	9426543489
17	Rachit Oza	Board Member	CH	rachitoza@gmail.com	9998341165
18	Sharang Parnerkar	Board Member	EE	parnerkarsharang@gmail.com	(+49)176 64296347
19	Anushrav Bhatt	Board Member	Civil	anushrav@nirantargroup.com	8866772233
20	Kuntal Shah	Board Member	CSE	kuntal.shah@cricheroes.in	9825068759
21	Nachiket Patel	Board Member	CSE	nachiket.patel@digi-corp.com	9978948855
22	Sanket Thakkar	Board Member	CSE	sanket@iconflux.com	9825087877
23	Manan Thakkar	Board Member	CSE	MThakkar@synoptek.com	9898210786
24	Ravish Bhatt	Board Member	Mech	rvbhatt86@gmail.com	7065153608

OBJECTIVES OF NITAA

The association shall have the following broadly identified objectives in the field of Engineering and allied branches.

- To establish and maintain contact between the past students, present students and the Institute of Technology.
- To pursue and sustain excellence in Education by interaction between the alumni, faculty and present students of the Institute.
- To strengthen Industry-Institute-Interaction and operate related activities for the benefit of students of the Institute.
- To extend all assistance and co-operation to the institute in its endeavors for the growth and development of education and research in the field of technology.
- To encourage and assist the students of the Institute of Technology in various academics and cultural activities.
- To establish endowments by donation to extend financial and other assistance to deserving students of the Institute for educational and research purposes as per the terms and conditions or as mutually decided with the Board of Management.

- To give away scholarships and awards for deserving past and present students of the Institute of Technology for educational and research purposes as per the terms and conditions to be laid down by the Board of Management.
- To establish endowments by donation to create Chair/s of Professor/s Emeritus in Nirma Institute of Technology in professional and related areas.
- To generate funds through donation for conducting activities for achieving the objectives of the association.
- To project constructive activities of Institute of Technology in India and abroad.
- To provide a common platform for exchange of ideas and disseminating knowledge in professional areas.
- To perform any other constructive activities leading towards the enhancement of the skill and knowledge of the members of the association.

NITAA has also started free scholarship to the needy students from the NITAA fund since year 2008-09.

Activities by NITAA

The Institute of Technology through various departments is involved in various activities for a better Alumni Connection. The institute already has 18300+ alumni members and we are continuously involved in various activities for a better connection. Some of these activities are mentioned as under:

- NITAA annual get together on the first Saturday of every year.
- Alumni Meet is arranged in various cities of India and abroad
- NITAA Scholarship from the NITAA fund to existing students of all branches of BTech and MCA based on merit cum means
- NITAA Alumni Awards one per department are announced on the Foundation day of the Institute (ie 3rd October)
- Alumni Expert Talks conducted department wise or at Institute Level
- Career guidance Seminar and various other interaction sessions for the existing students

The Alumni data management is maintained by online portal named ALMA CONNECT in which, more than 10546 Alumni members have registered so far.

SALIENT FEATURES ABOUT THE INSTITUTE

Within a short span of time, the Institute has been recognized as one of the leading centre of higher education in the country. In addition to offering robust academic programmes and quality teaching learning process, the all-round development of students is planned through a blend of co-curricular, extra-curricular, societal and professional activities.

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- Funding and guidance for innovative ideas to promote start-up ventures
- Connect with the community through the community service programme

Research & Consultancy

Over the years, the Institute of Technology has become more focused on research and has earned an increasing number of consultancies, funded research projects and delivered efficient custom training programmes for scientific organizations and industries. The vision of the leadership, excellent infrastructure & committed faculty has helped create an environment conducive to research. The Institute is emerging as a centre of excellence in multi-disciplinary areas and is committed to cutting edge research.

Pedagogy

Institute lays great emphasis on student centric teaching rather than teacher centric learning. Implementation of learner centric teaching is made feasible by adoption of well-developed system of Outcome Based Education (OBE). Keeping in view the Graduate attributes as demanded by the stakeholders, Institute has revised the Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Course

Learning Outcomes (CLOs) of every programme and course. All the outcomes are achievable and tangible. A closed-loop system, encompassing students feedback is practiced for monitoring the system of course delivery. Institute, being a catalyst of change has done a drastic curriculum reform has judiciously amalgamated legacy courses (core and humanities) with future courses (the one which are emerging and will emerge). The diversification of the course was done keeping in view of the need of 21 century work-places. The workplace demands students having global, environmental and societal awareness that can provide solutions and innovation for the societal benefit.

The innovations and initiatives encompass depth and breadth of programs. The commitment was also to introduce lifelong learning courses, enrichment courses, and value added courses among other equally important ancillary courses.

The Institute makes use of an appropriate mix of pedagogical tools to train students to handle professional responsibilities. These include lectures by an appropriate mix of in-house and visiting faculty, expert lectures, discussions, seminars, project assignments and visits to industries and project sites. Continuous evaluation and counselling are important parts of the academic programme.

The Approach to Learning

Shifting the focus from teaching to learning, Outcome Based Education (OBE) model has been adopted in the Institute of Technology with a firm focus on instruction, curriculum and assessment. The methodology aims at providing a well-articulated learner -centric approach and creating an environ that facilitates self-learning and life-long learning.

Keeping in mind the graduate skill set desire has shifted, the Institute focus on teaching-learning process, curricula and evaluation away from lower-order thinking skills, such as remembering and understanding to higher-order skills, such as analysing and solving engineering problems. Hence imparting experiential learning with a strong foundation of core courses with an interdisciplinary flavour along with courses aiming to hone thinking skills, such as design thinking and critical thinking forms the basis of the pedagogy followed at the Institute.

The Institute focuses on rigorous coaching & continuous evaluation very well supported by the credit based system with weightage to different components of study. Students learn through classroom teaching, practical work, industry visits, project work and video

lectures through multi media. The Institute also gives emphasis on field based projects and interaction with practitioners, with faculty guidance and advisory system. Along with developing technical skills, we also focus on continuous enhancement of nurturing communication skills, promoting use of computers in every learning activity and encourage active participation in creative co-curricular activities for holistic development.

Courses and Assessment

Nirma University has a credit based evaluation system. It is devised to motivate students for systematic and continuous study. Term assignments, laboratory and project work are given great importance and are continuously assessed. Moreover, there is a Semester End Examination for theory courses. The Institute has also initiated a number of measures to bring the curricula and assessment system of its programmes in conformity with international norms. Open book examination is one of them. Provision is also made for remedial teaching wherever necessary.

Special attention is given to improve English language and Communication Skills of the students. Supplementary courses that promote self-development, societal and environmental awareness are also offered. For talented and motivated students, there is a provision of Audit courses. These are additional and optional courses to cultivate familiarity with emerging or advanced interdisciplinary topics.

Discipline - The Keyword

The Institute has earned a name for quality education. This is due to the efforts and devotion of well-qualified faculty of the institution. The academic calendar for the whole year is notified in the beginning and is strictly adhered to. Students' attendance is compulsory and shortfall is notified. It is expected from every student that he/she should conduct himself/herself with discipline, decency and dignity both inside and outside the campus. The Institute sends progress reports of the students to their parents periodically with a view to keep them informed.

Counselling

Student counselling is a distinguished feature of the Institute. Each faculty member is assigned about 15 to 20 students. The faculty meets them periodically and reviews their attendance, submissions, academic performance and provides necessary guidance for

improvement. In addition to this, the Institute also provides the services of a professional psychological counsellor who can be approached for any other issues that hinder the learning progress of the students.

Centre for Excellence in Data Science

Data Science is an interdisciplinary field consisting of methods and systems to extract knowledge and insights from data. It encompasses statistics, machine learning, visualization, business analytics, data analytics, and scientific computing. India has demonstrated rapid and sustained economic growth over the last decade and recent developments suggest that a focus on data science is a need of the hour. Taking this into consideration, Institute of Technology, Nirma University has established a Centre of Excellence in Data Science in collaboration with SUNY, Binghamton University, New York, USA.

Centre for Robotics and Automation

The Centre for Robotics and Automation at Institute of Technology, Nirma University facilitates the researchers by providing an environment to develop and upgrade the robotic technology. The research and development in the said field would provide innovative solutions to many automation companies. The Centre aims to provide an interdisciplinary environment and bring together the research groups involved in robotics, control engineering, embedded systems, industrial automation, artificial intelligence, computer coding, machine learning and other related technologies. The state-of-the-art facilities at the Centre would play a vital role in the advancement of robotics and automation field. It also aims to facilitate the need to create industry-ready manpower by imparting training.


Centre for
Robotics and Automation
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INSTITUTE RANKINGS

The National Institutional Ranking Framework (NIRF), Ministry of Human Resource Development, Government of India is one of the most prestigious ranking scale in India. Institute of Technology is ranked 153 by the NIRF in 2021.

Institute of Technology, Nirma University is ranked 4th in "Top Leading Engineering Colleges of Super Excellence" survey published by CSR – GHRDC for the year 2021, 5th under "Faculty, Research, Consultancy, EDP and Other Programmes", and 4th in "Placement, USP, Social Responsibility, Networking & Industry Interface"

Other Rankings

- As per the Competition Success Review – Super July 2021 Issue, Institute of Technology is ranked 04th among the Top Leading Engineering Colleges of Super Excellence in India. Also the Institute is placed at first position among the Top Engineering Colleges ranked by the Gujarat State.
- Special Issue of India Today published the list of Best Engineering Colleges of India. This survey placed the Institute of Technology at 15th position among the Private Engineering Colleges of India.
- Institute of Technology is placed at the 11th position in Overall Ranking in the Times of India Ranking 2021 under the category "Top 175 Engineering Institute Rankings 2021", 4th under "Top 125 Private Engineering Institute Rankings 2021", and 2nd in West Zone.
- As per 'The Week', Institute of Technology is ranked 41st among the all Engineering College of India. Also ranked 16th among the all private engineering colleges of India in year 2021.
- As per the September 2020 issue of "Outlook" Magazine, Institute of Technology is ranked 29th among "The Best Professional Private Colleges of India".
- As per the CSR-GHRDC Engineering Colleges Survey – 2020 of Indian Engineering Colleges, Institute of Technology is ranked 4th among the "Top Leading Engineering Colleges of Super Excellence".

- As per the August 2020 issue of "The Week" Magazine, Institute of Technology is placed at the 46th position among All India Engineering Colleges. Among the private colleges across the country, the Institute ranks 17. The Institute is ranked 4th among the private engineering colleges in the West Zone.
- Institute of Technology is ranked among the top 5 Private Engineering Colleges of West India in the July 2020 issue of India Today Magazine. The Institute is also ranked at 15th position in the list of Top Private Engineering colleges of India.
- Ranked 2nd among engineering institutes in West zone, 10th among engineering institutes across the country and 8th in Engineering Research Rankings – Times of India, 2019
- Nirma University ranked 1st among the Universities in the State of Gujarat – State Institutional Ranking Framework (SIRF), Govt. of Gujarat, 2019
- Ranked 2nd among all Central/Deemed/State Private Universities in Gujarat State and is listed AAAA Category – Careers 360, 2019
- Ranked 10th in Top T-Schools (Private) in India – DataQuest Survey, 2019
- Ranked 23rd in Top T-Schools (Overall) in India – DataQuest Survey, 2019
- Ranked 101st in Best Engineering College in India – Indian Institutional Ranking Framework, 2019
- Ranked 23rd amongst National Ranking by Digital Learning and is listed AAAA category – Digital Learning Engineering Survey, 2019

ACTIVITIES DURING PANDEMIC

In order to contain the spread of Novel Coronavirus (COVID-19), some precautionary In order to contain the spread of Novel Coronavirus (COVID-19), the Government of India has laid some ground measures to be followed by all the citizens of the country.

Abiding by it and to maintain health and hygiene on the campus, the University sanitized the classrooms, offices and the campus area. The first thing the University did after the virus broke was to suspend teaching and made sure that the students staying in the hostels reach home safely. To make sure that the academics are not hampered the faculty members started taking online classes, giving assignments and regular assessment of the work done. The University conducted the examinations in on-line mode and declared the results so that the outgoing final year students did not have to face any delay in their placements or progression for higher studies. The University also contributed one-day salary of all the regular employees to CM Relief Fund.

The University has also initiated online counselling for all its students. In this, if any student is facing any psychological, emotional or mental stress may get in touch with Ms Sapna Bhatt via an email. This counselling is in addition to the regular faculty mentoring that the students receive.

DEPARTMENTS OF SCHOOL OF ENGINEERING & SCHOOL OF TECHNOLOGY

Role of Departments

Departments play a pivotal role in developing and implementing academic programmes. School of Technology constitutes of Computer Science & Engineering (CSE) including the programme of Masters of Computer Application, Electronics & Communication Engineering (EC) and Electronics & Instrumentation Engineering (EI) Departments.

School of Engineering constitutes of Chemical Engineering (CH), Civil Engineering (CL), Electrical Engineering (EE), and Mechanical Engineering (ME) Departments. Each department has different sections according to the programmes/specialties handled by it.

The Institute has evolved a participatory model of administration through which all proposals of budgetary allocation, academic development, curricular reforms, laboratory updates etc. first originate at the section level and then are finalized at the department and higher level. In this context the role of the faculty in the total process of teaching-learning assumes great importance.

Faculty

Through a judicious recruitment policy and enlightened approach, University has ensured that the Institute is staffed by a well-qualified and competent faculty to shoulder the responsibilities of maintaining high standards of education in the Institute. In keeping with the aims outlined in the mission statement, the faculty members remain fully conscious of their dual role both as teachers to impart efficiently technical knowledge to students and counsellors to guide them for their overall development.

The faculty at the Institute comprise of the pool of talented and dedicated faculty members committed to teaching – learning process with diversified wealth, knowledge, experience and academic specialty. In this ever-changing technical world, the faculty members keep themselves updated with the state-of-the-art tools and technologies. They also contribute to the technical fraternity through research and development in their respective domains.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs) & PROGRAMME OUTCOMES (POs)

By understanding that the traditional model of education is getting digressed in its path by giving more importance to teaching than learning, we have focussed upon precise learning outcomes and articulating them as Programme Educational Objectives (PEOs) and Programme Outcomes (POs). Adoption of Outcome Based Education was the pivotal decision to make education delivery learner–centric. We understand that students have diverse learning needs. High impact- high attainment methods such as experiential learning which involves experimentation- experience- reflection-conceptualization in iterative manner; project-based learning are used for hands on experience and cognitive-learning.

The assurance of Learning is well structured. The well-articulated Graduate attribute (as desired by various stakeholders) are mapped with Programme Educational Objectives (PEOs) which in turn percolate down to Course Outcome (CO). The tangible outcomes are attained through various indirect and direct assessment (formative and summative) methods.

Program Educational Objectives (PEOs) are the statements that describe the expected achievements of graduates within first few years of their graduation from the program. The PEOs may be guided by global and local needs, vision of the Institution, long term goals etc.

Programme Outcomes (POs) statements about the knowledge, skills and attitudes (attributes) the graduate of a formal engineering program should have.

The following are the PEOs and POs of B.Tech programme:-

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)	PROGRAMME OUTCOMES (POs)
The Program Educational Objectives of B.Tech. Programme are: • **PEO I:** To prepare graduates who will be successful professionals in industry, government, academia, research, entrepreneurial pursuit and consulting firms.	Undergraduate engineering programme are designed to prepare graduates to attain the following program outcomes: • **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. • **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

• **PEO II:** To prepare graduates who will contribute to society as broadly educated, expressive, ethical and responsible citizens with proven expertise.	• **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. • **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions
• **PEO III:** To prepare graduates who will achieve peer-recognition; as an individual or in a team; through demonstration of good analytical, design and implementation skills.	• **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations. • **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
• **PEO IV:** To prepare graduates who will thrive to pursue life-long learning to fulfill their goals.	• **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. • **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. • **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. • **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective

	presentations, and give and receive clear instructions. • **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. • **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

2. Student Centric Information

ACADEMIC CALENDAR

Term: Odd 2021-2022

• B Tech Semester – I

• Semester commencement	16-10-2021
• Teaching Phase – I	16-10-2021 to 30-11-2021 (2.0)
• Orientation	16-10-2021 to 22-10-2021
• Teaching Phase – II	09-11-2021 to 05-02-2021 (13.0)
• Registration (IR)	29-11-2021 to 04-12-2021
• Class Test (Teaching Continues)	29-11-2020 to 04-12-2021
• Academic / Attendance Review –I	09-12-2021 to 15-12-2021
• Sessional Examination (Teaching Conti.)	06-01-2022 to 12-01-2022
• Academic Review –II	24-01-2022 to 29-01-2022
• Parent's Teachers Meet	29-01-2022
• LPW Examination	07-02-2022 to 14-02-2022 (1.0)
• Semester End	14-02-2022
• Semester End Examination (SEE)	17-02-2022 to 23-02-2022
• Commencement of next semester (proposed)	28-02-2022

Total Week: 16.0 (Including Examination)

HOLIDAYS

• Guru Nanak's Birthday	19-11-2021 (Friday)

Diwali Vacation (Students): 01-11-2021 to 08-11-2021

IMPORTANT CONTACT PLACES

No	Place	Building	Contact Person	Contact Detail	
				Email ID	Ext.
1	Director-ITNU & School of Technology	PG	Dr R.N. Patel	director.it@nirmauni.ac.in	502/503
2	Additional Director-School of Engineering	A	Dr. R.N Patel	addldirector.soeit@nirmauni.ac.in	9110
3	Dy. Registrar	PG	Shri B. J. Patel	dyr.it@nirmauni.ac.in	512
4	Heady-FY Programmes	D	Dr. Dipak M Adhyaru	head_fy.it@nirmauni.ac.in	9411
4	HOD-CH	A	Dr. Sanjay Patel	hod_chem.it@nirmauni.ac.in	9136
5	HOD-ME	A	Dr. K. M Patel	hod_mech.it@nirmauni.ac.in	9102
6	HOD-EE	D	Dr. Santosh Vora	hod_ee.it@nirmauni.ac.in	9401
7	HOD-EC	D	Dr. Dhaval Pujara	hod_ec.it@nirmauni.ac.in	9402
8	HOD-IC	D	Dr. Himanshu Patel	hod_ic.it@nirmauni.ac.in	9405
9	HOD-CL	B	Dr. Urmil Dave	hod_civil.it@nirmauni.ac.in	9211
10	HOD- (CSE)	B	Dr. Madhuri Bhavsar	hod_ce.it@nirmauni.ac.in	9212
11	HOD-M&H	B	Dr. Kunal Pathak	hod_maths.it@nirmauni.ac.in	9216
12	Chief Coordinator Exam, NU	PG	Prof. Anand Patel	examsection.it@nirmauni.ac.in	504 / 9155
13	Librarian	B	Mr. Sujal Soni	sujalsoni@nirmauni.ac.in	231
14	Student Section	K	Shri Praful Saini	prafulsaini@nirmauni.ac.in	9322
15	III Cell	K	Mr. Sunil Pandi	placement.itnu@nirmauni.ac.in	9855
16	Student Welfare	K	Mr. Bhavesh Parekh	studentwelfare@nirmauni.ac.in	9322
17	Bank	K	Branch Manager	kalupurbank@nirmauni.ac.in	152
18	Dy. Registrar (Exam), NU	NIM	Dr. N.M Patel	dy_registrar.exam@nirmauni.ac.in	698
19	Account Section, NU	NIM	Ms. Palak Shah	palak.shah@nirmauni.ac.in	673
20	Academic Section, NU	NIM	Dr. Ravindra Sen	asst_registrar@nirmauni.ac.in	680
21	Health Center	Near DG Set	Dr. Rajesh Patel	healthcentre.nu@nirmauni.ac.in alishaclinic@yahoo.co.in	9222

No	Place	Building	Contact Person	Contact Detail	
				Email ID	Ext.
22	Counsellor	NIM	Ms. Sapna Bhatt	sapna.bhatt@nirmauni.ac.in	617
23	Transport Section	Bus Parking	Shri Shailesh Patel	transport@nirmauni.ac.in	157
24	Anti-Ragging Committee	A	Dr. Amisha Naik	amisha.naik@nirmauni.ac.in	415
25	Anti-Drug Committee	A	Dr. Amisha Naik	amisha.naik@nirmauni.ac.in	415
26	Grievance Redressal Cell	PG	Shri B. J. Patel	dyr.it@nirmauni.ac.in	512
27	Women Development Cell	B	Dr. Neha Patni	neha.patni@nirmauni.ac.in	134
28	Complaints Committee for Prevention of Sexual Harassment	B	Dr. Madhuri Bhavsar	hod_ce.it@nirmauni.ac.in	9212
29	Nirma Institute of Technology Alumni Association (NITAA)	PG	Dr. S.V Jain	sanjay.jain@nirmauni.ac.in	541
30	Centre For Continuing Education	A	Dr. Yogesh N Trivedi	yogesh.trivedi@nirmauni.ac.in	106
31	Equal Opportunity Cell	A	Dr. Milind Joshipura	milind.joshipura@nirmauni.ac.in	137
32	K – Canteen	K	Mohani Caterers	--	289

ABOUT THE UNDERGRADUATE PROGRAMME

The Institute of Technology is a constituent of the Nirma University (hereafter Institute & University). The University has approved the undergraduate degree level Programme offered by the Institute.

The programme is of four years' duration, (eight semesters). The academic schedules provide for a reasonable mix of courses in Humanities, Basic Sciences, Basic and Applied technology, and Advance Electives tracks in interdisciplinary and advanced areas. Professional and project training of short/ long duration, appropriate to the technical discipline of the Programme, is also included.

Special attention is given to develop English and Communication Skills in the students. General development courses that promote self-development and societal and environmental awareness are also being planned. For talented and motivated students, there is a provision of audit courses. These are additional and optional courses to cultivate familiarity with emerging or advanced interdisciplinary topics.

The Institute has also initiated a number of measures to bring the curricula and assessment system of this programme in conformity with international norms. These measures are listed below:

- Regular revision of the curricula for greater relevance to industrial and professional needs.
- The course is taken as the unit of registration. This leads to focused attention on each course and hence leads to a more effective pedagogic effort.
- The course is subdivided into components, each with its characteristic identity. They are designed to develop greater understanding of the subject matter and also to enhance analytical and practical skills, library use, self-study and report writing and presentation abilities. Each course carries certain credits and credits are earned on successful completion of the course.
- Each course consists of one or more components. Each component serves a specific purpose in the total scheme of teaching. Passing standard for each component is the same and the student has to pass in each component separately. This provision ensures that the student becomes fully conversant with all aspects of the course.
- There are maximum three components in a course. Except for semester end examination, other components are assessed continuously during the semester. There is also a semester end overall assessment of the components. The students are kept informed about their performance at every stage. This method encourages the students to study regularly and also provides motivation for progressively better performance.

COMPONENTS OF A COURSE

The academic schedule of the courses may consist of one or more of the following components with their respective scope as described.

LECTURES (LECT) - Teaching learning processes conducted in real and virtual classrooms with various multimedia aids.

CONTINUOUS EVALUATION (CE) - Supplementary to classroom teaching. It consists of one or more of the following teaching strategies.

Tutorial exercises, quizzes, tests, objective questions, term paper.

Each strategy will form a UNIT.

LABORATORY AND/OR PROJECT WORK (LPW) –

This component consists of one or more of the following practical / training exercises or analytical, research, design assignment:

- Laboratory experiments and their reports, fabrication / workshop jobs, study of machine / equipment, tests on materials / components / prototypes, etc.
- Seminar, software development programme of limited size or complexity, industrial training of short duration, etc.
- Long duration project work, either research based or related to industry, or practice oriented problems / topics.

EXAMINATIONS

The examination system is devised to motivate the students for systematic and continuous study. Continuous Evaluation (CE), laboratory and project work (LPW) are continuously assessed. Students must remain regular and complete all assignments, practicals etc. to acceptable standards. If the student fails in CE component and/or LPW components, the students will not be permitted to appear in SEE of that course. The student will have to seek fresh registration as REC and/or RL registration. In REC registration the student has to appear in all examinations concerned for CE component and under RL registration the student has to repeat the LPW component of a course and appearing the concerned examination.

There is one written examination, semester end examination (SEE) being conducted at the end of the semester. This will cover full syllabus. The Institute may hold supplementary examinations (SPE) after SEE for students registered under IR registration in a current semester.

GRADES AND PASSING STANDARDS

A letter grade with a corresponding grade point is assigned to the performance level of the student in an examination. These grades are A+, A, B+, B, C+, C, D and FF on a 10 point scale. Minimum passing grade is C with grade point of 5. Grade FF refers to failure in a course.

A student passes a course if he secures Min C in each component of the course and Min C in the course as a whole. Credits for a course are earned only on passing the course.

Regulations also provide for Graced passing of a course in case the student gets grade D in CE but secures overall course grade of Minimum C.

Maximum six Gracings (D-grade) will be allowed in the entire programme.

PERFORMANCE INDEX

Semester, progressive and Cumulative performance indices (SPI, PPI & CPI) are calculated by the following well-established formula:

$$\text{SPI/PPI/CPI} = \frac{\text{Sum of the products of earned credits and corresponding grade points}}{\text{Total credits of all registered courses up to the stage under consideration.}}$$

A student passes a Programme if he earns the prescribed number of total credits with CPI equal to min.5.

ATTENDANCE AND PROGRESS OF WORK

Great emphasis is laid on regular attendance by students during the semester. Prior permission of the concerned Head of Department, for any leave of absence, is required to be taken. Students must fill up the form for leave in the department office and take permission. However, university norms of attendance are required to be satisfied. Attendance and progress of the students of all years will be constantly under observation right from the very beginning. The student can see the attendance online in the Management Information System (MIS) in day to day process. Regularity and punctuality in attendance and performance at lectures, tutorials, practical work in laboratories, drawing class, workshop, oral and written test, constitute the day-to-day assessment of progress. A student whose attendance is unsatisfactory is liable, under the University and Institute rules, to be prevented from appearing at the Semester End Examination.

The attendance of students on the first day / First Two days after the vacation is compulsory, failing which will result into appropriate punitive action.

The parents, while accompanying their wards for admission or while visiting the Institute on other occasions, are advised to contact the Director or Heads of Departments or Deputy Registrar and express their views, difficulties if any. The parents should also see the results of their wards and obeserve their progress regularly. Institute also arranges a Parent – Teacher meet once in a semester.

GRANTING OF TERM (R.ENG.(UG)12)

- The Term will be granted course-wise
- The granting of Term for all the students (IR, RPR) will depend on the compliance of maintaining minimum 85 % attendance in all components of the course (as applicable) Regular approval for remaining absent up to 15 % is necessary
- The student who has been given category NT (Term not Granted) may appeal to the Appeal Committee giving full reasons for his default. The decision of the Committee in all such cases will be final.
- The student who is given NT category will not be permitted to appear in SEE of the concerned course. He will also be given grade FF in that course.

CANCELLATION OF ADMISSION (R.ENG.(UG)17)

The admission of following categories of students is liable to be cancelled:

(i) Failure to earn credits for all courses of Semester-I within four semesters (except summer semesters) of admission to the programme,

(ii) Failure to earn credits for all courses of Semester-II within five semesters (except summer semesters) of admission to the programme,

(iii) Failure to earn requisite credits and CPI min. 5.00 to pass the programme within a period (after admission to the programme), equal to the stipulated duration of the programme plus, 16 two additional semesters.

The student, whose admission is so cancelled, can appeal to the Appeal Committee. The Committee may grant an extension upto the one additional semester for cases falling under (i) and (ii) and upto two additional semesters for cases falling under (iii) for deserving cases, provided the student gives a viable assurance to make up the shortfall within that period.

Notwithstanding anything contained above, the President may consider the cases of such students failing under category (i), (ii) & (iii), if the student has cleared all the courses and have earned the requisite number of credits except one, on an appeal filed. The President will consider such appeal on the recommendation of the appeal committee prescribed under the regulation for the purpose and after considering the genuineness of the case may give one additional attempt to the student concerned to clear the remaining course.

COUNSELLING

An elaborate system of counseling has been put in place for the benefit of all the students. Under this system, 15 to 20 students are entrusted to one faculty, from the same department, who acts as a faculty counsellor. The counsellor meets these students, individually and in groups, as frequently as possible, and assists them in every possible manner. Apart from this, we have a professional psychological counsellor who looks after the psychological well-being of the students. It is compulsory for the students to attend the meeting called by the counsellors.

STUDENTS' ASSOCIATIONS

The students' associations of the Institute are the pivot around which the co-curricular and extra-curricular activities revolve and play a significant role in the development of the student life. They serve as an important adjunct to the course work. Students' associations are responsible to host numerous and variety of activities including expert lectures of eminent professional, debate and elocution competitions, general knowledge quizzes, essay competitions, sports, music, social to stimulate student interest in the diverse spheres of the life. It provides ample opportunities for the students to develop their well-rounded personality. This encourages emotional integration amongst the students to a very great extent.

The main aims and objectives of the students' societies are as follows:

- To promote disciplined corporate, intellectual, civic and cultural life amongst the students.
- To foster activities to bring out the creative talents of the students.
- To promote the study (including discussion) of subjects of national and international importance.
- To encourage amongst students, the awareness of the responsibilities of an individual in a democratic society.
- To promote social service activities.
- To know the latest technological developments.

The following societies are presently functioning:

1	MESA	:	Mechanical Engineering Students Association
2	CHESA	:	Chemical Engineering Students Association
3	OrCES	:	Organization of Civil Engineering Students
4	ECO	:	Electronics & Communication Students Association
5	EESA	:	Electrical Engineering Students Association
6	ISA	:	The International Society for Automation
7	IEEE	:	International Society of Electrical & Electronics Engineering
8	ACES	:	Association of Computer Engineering Students
9	INFOCRAT	:	Association of Information Technology Engineering Students
10	AMS	:	Association of MCA Students
11	CSI	:	Computer Society of India, Students Chapter, Ahmedabad
12	ISTE	:	Indian Society of Technical Education, Student Chapter

13	iL2	:	Invincible Leader's league
14	ER	:	Enchanted Rhythms
15	SAE	:	Society of Automotive Engineers India, Student Chapter
16	ASHRAE	:	The American Society of Heating, Refrigerating and Air-Conditioning Engineers Western India, Student Chapter
17	IIChE	:	Indian Institute of Chemical Engineers, Student Chapter

Students' associations together organizes a flagship annual technical colloquium of national level at the Institute and become a host of ignited mind of young engineers participating across the nation.

1	NU-TECH	:	National Level Colloquium of Institute of Technology

LOOKING BEYOND CURRICULUM

Student Associations

The Institute makes all possible efforts for all round development of each and every student by way of extra-curricular as well as co-curricular activities. To arrange such activities, there are many student forums. These branch wise student associations are formed to serve as the pivots, around which the diverse activities revolve and play a significant role in the development of the students. Throughout the year, these associations arrange many activities like expert lectures by eminent speakers, different competitions, debates, quiz, etc. Students also organize blood donation camps, "CRY" card sale, Thalassemia awareness programmes, etc. The Institute also encourages students of different departments to organize national / state level technical festivals including a national level mega event NU-Tech. The main aims and objectives of the student associations are as follows:

- To promote disciplined intellectual, professional and cultural life amongst the students.
- To foster activities to bring out the creative talents of the students and to promote the study (including discussion) of subjects of national and international importance.
- To encourage amongst students, awareness of the responsibilities of an individual in a democratic society.
- To promote social service activities and to know the latest developments.

The following associations are presently functioning:-

Student Associations	Faculty Coordinator
ACES Association of Computer Engineering Students	Prof. Pooja Shah (pooja.shah@nirmauni.ac.in)
AMS Association of MCA Students	Prof. Deepika Shukla (deepika.shukla@nirmauni.ac.in)
ChESA Chemical Engineering Student Association	Prof. Narasimha Reddy (narasimhareddy.ravuru@nirmauni.ac.in) Dr. Amita Chaudhary amita.chaudhary@nirmauni.ac.in
CSI Computer Society of India	Prof. Tejal Upadhyay (tejal.upadhyay@nirmauni.ac.in)
ECO Electronics & Communications Organization	Prof. Ami Shukla (ami.vora@nirmauni.ac.in), Prof. Akash Mecwan (akash.mecwan@nirmauni.ac.in)

EESA Electrical Engineering Students' Association	Prof. C. B. Bhatt (chanakya.bhatt@nirmauni.ac.in), Prof. C. R. Mehta (chintan.mehta@nirmauni.ac.in)
CodeAdda Club	Dr. Ankit Thakkar (ankit.thakkar@niramuni.ac.in)
IEEE-SB Institute of Electrical and Electronics Engineering	Prof. Manisha Shah (manisha.shah@nirmauni.ac.in)
iL2 Invincible Leaders' League	Dr. Richa Mishra (richa.mishra@nirmauni.ac.in) Dr. Samir K. Mahajan (samir.mahajan@nirmauni.ac.in)
ISA (The International Society of Automation) **STUDENTS' CHAPTER**	Prof. Ankit Sharma (ankit.sharma@nirmauni.ac.in)
IIChE Student Chapter Indian Institute of Chemical Engineers Student Chapter	Prof. Narasimha Reddy (narasimhareddy.ravuru@nirmauni.ac.in)
ISTE Indian Society for Technical Education	Prof. Ath Singhal (ath.singhal@nirmauni.ac.in)
MESA Mechanical Engineering Student Association	Prof. Mihir Chauhan (mihir.chauhan@nirmauni.ac.in), Prof. Rudresh Makwana (rudresh.makwana@nirmauni.ac.in)
OrCES Organization of Civil Engineering Students	Prof. Tejas Joshi (tejas.joshi@nirmauni.ac.in) Prof Hemang Dalwadi (hemang.dalwadi@nirmauni.ac.in)
Society of Automotive Engineers (SAE Nirma Collegiate Club)	Prof. A.M Lakadawala (absar.lakadawala@nirmauni.ac.in) Dr Dhaval B Shah - dbshah@nirmauni.ac.in Prof P N Kapil - pnkapil@nirmauni.ac.in
ROBOCON Team	Dr. R.N Patel (rnp@nirmauni.ac.in) Dr. Mihir Chauhan (mihir.chauhan@nirmauni.ac.in) Prof. Akash Macwan (akash.mecwan@nirmauni.ac.in)

ROBOCON

Team Nirma Robocon emerged as the National Champion of Robocon 2021. The team will now represent India in the international competition to be held in December this year.

Robocon is an International Robotic Contest organised by ABU every year since 2002 and hosted by various countries of Asia-Pacific region. The host country declares the Theme of the competition a year ahead and based on the same Theme each country first hosts the National level competition in their respective country. The winner of the national competition represents the respective country at international event.

The national competition of 2021 was organized by Doordarshan in association with IIT Delhi through online mode in three stages. Getting through all the stages, Team Nirma Robocon reached the final competition, held online on August 18, 2021, and won the National Championship title for the 9th time A total of 63 teams from various engineering institutes of India participated in the event and Team Nirma stood first amongst all. The team from Nirma University was the only team in India that completed the theme and that too in just 54 seconds of time.

The team will now represent India at the international competition organised by China on December 12, 2021, in online mode. Kudos to the team members Dhrumil Shekhda, Aryan Batra, Kushal Sheth, Harsh Chotalia, Jigar Boda, Vivek Sondagar, Abhay Vasjariya, Dhyey Chavda, Parth Gajara, Dev Bhagat, Arya Kargathara & Prapti Bordoloi.

The team Nirma Robocon is mentored by Dr Mihir Chauhan and Dr Akash Mecwan under the leadership of Dr RN Patel, Director, ITNU.

SAE NIRMA COLLEGIATE CLUB

SAE Nirma Collegiate Club is a platform for young engineering minds to apply their practical skills and explore every single dimension. It involves students from different branches of the Institute working together. SAE includes TEAM STALLIONS and TEAM ARROW where, students work dedicatedly towards building innovative All-Terrain Vehicles and Aero Models for participating in SAE-BAJA and SAE INDIA AERO DESIGN Challenge every year.

OTHER ACTIVITIES

Co-curricular Activities

The Institute also gives equal importance to projects, industrial visits and training during vacations to support their curricular work. Seminars enable students to develop many skills. They develop searching skills through internet, e-journals, books and journals on a specific topic. They also enhance the library reading, writing and presentation skills. Special programmes on humanities, communication skills, computers, foreign languages are offered to students on a regular basis. Two additional courses on career orientation have been added in the curriculum, so that students are sensitized about their potential and can plan their career. National competitions such as ROBOCON, SAE-BAJA, etc. provide the incentive to work beyond classroom hours in interdisciplinary areas.

Fresher's Orientation

The Institute organizes a unique orientation programme of five days for the new entrants. Various lectures on Time Management, Coping with stress, Human relations, Positive attitude, Communication skills, etc. are delivered by eminent speakers to the students. This programme enables the students and faculty to interact with each other, understand each other and it also provides smooth transition from school life to a new environment of professional studies.

Sports

- Sports competitions are organized in two phases.
- In the first phase the Institute level competition is organized. In the second phase the winner of the Institute level competition may participate in inter Institute level – university level competition.
- The Winner and runner ups are awarded trophies and certificates.
- The games of sports competition are,
- Volleyball, Football, Cricket, Table Tennis, Carom, Chess, Tug of War, Athletics.

Events of Athletics:

- 100mtr.,400mtr.,800mtr., 1500mtr. Run, 4 X 100mtr. Relay
- Long Jump, High Jump, Discuss Throw, Shot Put, Javelin Throw

Inter-University Sports Festival

- The first Inter-University Sports Competition 'ABHIMANU' was hosted by Institute of Technology under the flagship of Nirma University with great success.
- The festival consisted of three sporting events: Cricket, Table Tennis and Chess, in which, a total participation of about 250 players was witnessed from 21 colleges and universities all over Gujarat.
- Nirma University teams won all the three team tournaments in the festival and were declared the overall Champion of the event.

Cultural activities bring out the creative side of the students and the participation and organisation of these are the best learning experience a student can have. 'Vaudeville', the annual cultural festival of the Institute, is a rainbow event with dance, theatre, drama, music lending the colours. Planned as a 'for the students, of the students, by the students' event, the festival is the most awaited event of the year.

Additionally, the University level cultural festival 'NUZEAL' and the Ras-Garba Mahotsav (Ramzat) are star attractions planned during the year. The details are as mentioned below:

- **Ramzat:** Ras-Garba is organized after Navratri festival. All students, staff members, faculty members, HODs and HOIs of constituent Institutes of Nirma University and officers of the University join this festival. The winners in different categories are awarded trophies.

- **Cultural Festival:** Cultural Festival is also organized in two phases.

At first phase the Institute level competition is organized. At second phase the winner of the Institute level competition may participate in inter Institute level – university level competition. The Winner and runner ups are awarded trophies and certificates.

The events of the Cultural Festival are,

Drama	Cartooning	Skit
Group Dance	Mime	Solo Dance
Mono Acting/Mimicry	Folk Dance	Debate
Singing – Solo	Elocution	Singing - Duet
Collage	Group Song	Vocal
Rangoli	On the spot painting	Instrumental

Student Welfare Board

The Student's Welfare Board aims to promote the social, cultural and spiritual growth of the students through a host of activities round the year. Annual sports competitions, cultural festivals like Ras-garba, celebration of National days, and social activities such as blood donation drives, Swachh Bharat Abhiyaan, awareness lectures for youth are the recurring features of campus life. Competitions at Institute and inter-Institute level in sports like cricket, football, volleyball, basketball, kho-kho, kabaddi, lawn tennis, badminton, table tennis, carom, chess, and athletics are held all through the year. Moreover, adventure activities, like mountaineering camps in the Himalayas and desert adventure camps, are also arranged from time to time.

Cultural activities conducted under Students Welfare Board

The University emphasises on the overall development of the students and extracurricular activities play a vital role in it. Cultural activities lead to the development of many important soft skills, such as resource management, public speaking, teamwork, leadership, and ethics.

The campus is well equipped with the necessary state-of-the-art infrastructure to facilitate all types of cultural activities, including musical performance, dance, theatre, painting, fashion show, etc. NUZEAL, without doubt, is the biggest and most awaited cultural event, organised every year by the University.

Issues like Gender Equality, Exploitation in Education, Importance of Morals and Ethics, Patriotism, Communal Riots, Need for Global Citizenship, Environmental Issues are covered through different cultural events.

The University encourages participation of the students in various state and national level cultural activities held at different institutions and universities across the country.

Garba, the famous dance form of Gujarat, is loved and enjoyed by people from all sections of the society and across all age groups during the Navratri period. The University organizes its annual Ras-Garba Mahotsav (RAMZAT) on the first Saturday after Navratri.

Celebration of National Days

On the occasion of Independence Day, the University organizes the flag hoisting ceremony at its campus. Renowned dignitaries from the various walks of life are invited as the Chief Guest for the occasion. A patriotic song competition is conducted on this occasion as a mark of respect for our freedom fighters.

The 26th January is observed as the Republic Day in India. On this red-letter day, India was declared as a sovereign nation. On this occasion, the University conducts an array of events, including the flag hoisting ceremony where dignitaries are invited as the Chief Guest, plus an exhibition of photographs shot by University students is opened for all, to name a few.

International Day of Yoga

The United Nations General Assembly declared 21 st June as International Day of Yoga. To mark the occasion, the Government of India celebrates this day in a befitting manner all over the country. In the same vein, the University celebrates International Day of Yoga in its campus every year. All University officers, teaching and non-teaching staff, perform yoga under a trainer in the morning.

Sports activities conducted under Students Welfare Board

The University encourages participation of the students in various state and national level sports activities organised at different institutions and universities across the country.

University Annual Sports event, Institute level sports activities, and Inter-University sports tournaments are organised on a regular basis throughout the year. Training camps for sports, adventure camps, mountaineering, etc are planned for the overall development of the students.

Extension Activities

Social innovation can happen only when students are aware of societal problems and their responsibility towards the society. At the Institute, social commitment forms an important part of university life. A number of extension activities are undertaken in the adopted villages by the students throughout the year. Planned exposure to societal needs and problems helps develop civic sense and is done through the mandatory community service course. National service scheme and students level NGO's are other banners under which students contribute to the society.

The National Service Scheme (NSS) is an Indian government-sponsored public service programme conducted by the Ministry of Youth Affairs and Sports. NSS is a voluntary association of students in colleges, universities and at higher secondary schools working for strengthening a campus-community linkage.

The Institute of Technology offers NSS programme for the students. A strong and vibrant 400 plus students NSS unit organizes a number of activities such as teaching children at the adopted villages of Miroli and Motipura, organizing residential camps, awareness drives on societal issues, mentoring and teaching construction workers children, cleanliness drives and many more.

The National Cadet Corps (NCC) has sanctioned a Boys Battalion and a Girls Battalion in Nirma University since 2016 with an aim to motivate students towards nation building. There has been enthusiastic and committed enrollment of students from the Institute of Technology. Various activities like Combined Annual Training Camp (10 days), Army Attachment Camp (15 days), Disaster Management drills and more are conducted throughout the year. Cadets of the Institute have won various competitions during NCC camps at Ahmedabad group level. Cadets also actively coordinate University level activities like celebration of national festivals, Yoga Day, Sports Day and Convocation.

Extension Activity at Institute of Technology, NU is categorized in the following way:

- By the course Community Services of the Curriculum
- By Student Organizations
- By individual faculty / student / staff / NSS Unit
- Nirma Volun Teaching moment

Following are some of the gymslips of the extension activities conducted during Jan 2020 to till date:

No	Name of Activity	Dates and Duration of Activity	Details of Activity
1	Community Services Course	From April 2021 to August 2021	All the students of BTech have done a course Community Services in which 3 weeks of societal activities are done. The activities are like teaching to underprivilege children nearby residence, Visiting the Old Age home, some online survey work to help the society etc
2	Uttarayan Celebration with slums and workers	9th January 2020	The Festival of Uttarayan was celebrated with the construction worker living besides gate number 3, the festival was celebrated by distributed sweets, kites, firki etc
3	NSS Special Camp at Motipura	27th January – 2nd February 2020 Residential Camp	NSS Unit, School of Technology (SoT), IT NU has organized a special camp of 7 days (27th January 2020 to 2nd February 2020) at Village Motipura, Dist: Gandhinagar with 47 students. Under the guidance of NSS Program officer Prof Tejal Upadhyay and NSS Program Coordinator Dr. Bhavesh Parekh, NU. This residential camp has given exposure to the students about village life and chance to interact with village people and many village development activities were conducted by students.
4	7 day NSS residential camp at Miroli, Village	NSS	NSS Unit, School of Engineering (SoE), IT NU has organized a special camp of 7 days (24th February 2020 to 1st March 2020) at Village Mirolli, Dist: Ahmedabad with 40 students. Under the guidance of NSS Program officer Prof Utsav

			Koshti and NSS Program Coordinator Dr. Bhavesh Parekh, NU. This residential camp has given exposure to the students about village life and chance to interact with village people. Activity like teaching children; awareness campaign about cleanliness, government schemes, literacy and many more were planned.
	Lock Down Activities from Home	24th March – 24th May 2020	In the lock down, volunteers made videos on different topics and posted on Instagram page of NSS. Activities includes, how we can help mom and sister in the home, Some motivational speeches by our volunteers etc.
6	Udaan	5th – 7th June 2020	Due to lock down, children and young ones were feeling boring at home. So, we organized 7 different activities like dancing, singing on online mode. Our aim was to give happiness to the children and young ones. In this week, all participated very enthusiastically. We also posted all the activities on our Instagram page of NSS. The E-Certificates had been given to all the winners and participants.
7	World Environment Day	05th June 2020 (1 day)	Civil Engineering department celebrated World Environment Day on 05 th June 2020 with the NSS Unit School of Engineering (SoE) and Student association of Civil Engineering Department (OrCES) through online mode. Activities like poster and video competitions were planned to spread awareness and show student's contribution towards saving the Environment. The Civil engineering Students participated in activities from their home. The theme of the poster and video was kept as "Impact of COVID-19 on Environment". Recognition of their unique contribution was given through E certificate.
8	MUSAFIR	29th June to 5th July 2020	The participants were writers, graphic designers, artists, dancers, singers, instrumentalists, speakers who expressed their thoughts through essays, logos, drawings, collages, artworks, speeches, and

			an online just-a-minute event. For the tech geeks, we had 'TIME CHANGES' in which they traced the advances in technology over time. But for Sunday we specially had a fun event, 'THE QUESTIVAL' an online treasure hunt. MUSAFIR: THE ONLINE JOURNEY was a success with more than 400 registrations.
9	Celebration of Van Mahotsav	1st -7th July 2020	In this week, post photos on Instagram related to Van Mahotsav. One video of paper bag making, also posted on Instagram page of NSS. There was an expert talk on Environment Impact Assessment by prof. Karshma Hingnekar of Department of Civil Engineering.
10	Logo Making Competition for Student Welfare Board	11th – 18th July 2020	In this week, participants made logos for Student Welfare Board
11	Incredible India-Deshraag	15th August 2020	On the occasion of 74th Independence day, Nirma Volun teaching Movement and National Service Scheme (School of engineering) in association with Student Welfare Board celebrated the INCREDIBLE INDIA by singing patriotic songs.
	Incredible India-Swadesh		On the occasion of 74th Independence day, Nirma Volunteaching Movement and National Service Scheme (School of engineering) in association with Student Welfare Board celebrated the INCREDIBLE INDIA by sharing knowledge and awareness about the long lost or unrecognized traditions of the precious Indian culture. Students prepared videos for hidden culture.
12	Education-de-Evolution as a part of Teacher's Day Celebration	2nd – 6th September 2020	Volunteers of NSS Unit (SoT) came with an idea of Education De Evolution event consisting essay writing, poetry and speech competition on the birth anniversary on Dr. Sarvepalli Radhakrishnan celebrated as teacher's day. In this event students, faculties and staff members of Nirma University participated and show their creative talent. They

			show the importance of teacher in our life through different ways like poem, essay and speech. The E Certificates had been given to all the winners and participants.
13	Capture the Color as a part of Diwali Celebration	12th – 16th November, 2020	Due to pandemic, we have organized an event on virtual platform. Students capture the photos on Diwali Theme like Firecrackers, Lighting and Decoration, Rangoli, and Sweets. We have uploaded on Instagram page of NSS-SoT.
15	Volunteer Teaching	Every Saturday during the year	Nirma VolunTeaching Movement (NVM) has been started from September 2013. Under this activity, students from various departments teach in the village: Miroli (Nr, Bakrol Circle, SP Ring road) in co ordination with All India Rural Empowerment Program (AIREP) group. Every Saturday students are regularly visit the village. The beneficiaries are around 80-100 kids of Standard III to VIII.

SCHEME OF SCHOLARSHIP

The Nirma University provides scholarship to the meritorious students studying in various Institutes under it on the Merit and Merit-cum-Means basis. To encourage the meritorious students and help the meritorious students on the basis of merit –cum-means the University has decided to provide the scholarships as under:

A. Category – I (Based on merit only)

Sr. No.	Details	Amount (p.a.)
1	5 Top students	Rs. 1,00,000/- each
2	Other 20 students	Rs. 90,000/- each
3	Another 25 students	Rs. 50,000/- each

The above scholarships will be renewed every year subject to the following conditions:

1. During the entire previous year the conduct of the student is good
2. The student should maintain merit and get PPI of 7.0 and above and should have passed all courses of study in the first attempt in the previous year, except the conditions narrated below:

   I. For Core courses

   at the time of renewing the scholarship for Semester-III, if a student is having 'IF' in only one course of 1st year, then he/she should be provided 50% scholarship for Semester-III. Further, if the student clears all the courses including backlog at the end of Semester-III, then the scholarship of Semester-IV will be given along with the arrears of Semester-III.

   II. For Supplementary courses

   at the time of renewing the scholarship in the beginning of next semester, if a student is having 'IF' in only one supplementary course, then he/she shall be provided the scholarship. However, the same will be considered only for 2 times during the entire duration of programme.

3. The student is not caught in unfair means in any of the examinations conducted either by the Institution or by the University;
4. The student maintains full attendance except the absence with genuine reasons for which the permission of the HoI is obtained particularly in case of illness.

B. Category – II (Merit cum Means)

Sr. No.	Details	Amount (p.a.)
1	25 Top students whose parents' total annual income is up to Rs. 2.5 lacs	Rs. 90,000/- each
2	Other 25 students whose parents' total annual income is up to Rs. 4.0 lacs	Rs. 50,000/- each
3	Another 25 students whose parents' total annual income is up to 6.0 lacs	Rs. 25,000/- each

The above scholarships will be subject to the following conditions:

1. All the conditions narrated under Category – I above will be made applicable
2. The students should be within top 500 in the merit list of the students admitted.

Two different merit lists will be prepared and the number of scholarships will be distributed proportionately to each category. The merit list will be as under:

1. The list of the students admitted on the basis of the merit of JEE only which is 35%
2. The another merit list will be prepared on the basis of the students admitted through ACPC

The number of scholarships as mentioned above is maximum and may vary from year to year depending upon the number of NRI seats filled – in every year.

The students admitted under the Non Resident Indian (NRI) or Person of Indian Origin (PIO), Foreign Nationals (FN) or Children of Indian Workers in Gulf Countries (CIWGC) categories will not be eligible for such scholarships.

The President will have power to make any exception in the above rules framed. However, in case of doubt, if any, in interpretation of any clause, the decision of the President will be final.

Financial Assistance

Interest Free Loan Scholarship (IFLS)

The Nirma University offers financial assistance, by way of loan, to the needy students of the Institute of Technology. The main purpose of this service is to help the needy meritorious students.

1. Assistance of 100 % interest subsidy on the loan, limited to the amount of tuition fees, obtained from the scheduled bank to a maximum of 5% of the total intake of students, and to the students whose family income does not exceed Rs.3.00 lacs per annum.
2. Assistance of 50% interest subsidy on the loan, limited to the amount of tuition fees, obtained from the schedule bank to a maximum of 5% of the total intake of students, and to the students whose family income does not exceed Rs.5.00 lacs per annum.

Book Bank Service

The Library Resource Center also provides book bank facility to the students of Institute of Technology. The main purpose of this service is to help the needy meritorious students.

NITTA Scholarship

NITAA started free scholarship to the needy students from the NITAA fund since year 2008-09.

AWARD OF MEDALS

NIRMA UNIVERSITY GOLD MEDALS

Nirma University Instituted award of Gold Medals to be awarded for the overall and discipline-wise scholastic performance by the students of different institutions under the University. This medal is awarded for his/her overall scholarship performance in a particular degree by the student and it is awarded during the Convocation of the said degree which will be held by the University. The norms for the same are furnished below:

1. One Gold Medal for each Bachelor's Programme in Technology (B.Tech) being run under the Faculty of Technology & Engineering will be awarded to the student who secures 1st position amongst all the students of the respective programme.

2. One Gold Medal for the entire Bachelor's Programmes (B.Tech) taken together will be awarded to a student who secures 1st position amongst all the programmes taken together.

The overall Cumulative Performance Index (CPI) earned at the end of Final Year of programme will be considered.

Norms for award of medals:

1. Pass and Earn all the Credits of all the courses of all the Semesters including supplementary and prerequisite courses of the programme with first attempt within stipulated time of the programme

2. Securing highest CPI / CGPA (with minimum CPI 7.00)

3. No punitive action of any kind is taken against the students for using unfair means at any examination (except warning) or any indiscipline behavior amounting to the major penalty.

4. Minimum Five Pass out students in a programme will be required for consideration of award of medal.

AWARD OF NERF (Nirma Education and Research Foundation) MEDALS

Every year, NERF medals are awarded to the students of different Institute for their scholastic performance. These medals are awarded to the student who perform well in both the semesters in a year and reached the top position. To achieve these medals, the students are required to meet certain norms as prescribed by the University which is subject to amendment by the competent authority from time. In addition to this, students are also recognized with awards and certificates for their skills in curricular, co-curricular and extra-curricular activities. These medals and certificates are normally given during the Foundation Day Celebrations of the Institute.

GUIDELINES FOR SHOWING THE ASSESSED ANSWER BOOKS

1 The process of showing the assessed answer books after the declaration of results should be completed within the first week of commencement of the next semester as per the announcement of Academic Calendar or in the first week after the declaration of the result whichever is later.

2 Examination Section will prepare a notice of showing the assessed answer books to the student as per Academic Calendar of the concerned Institute and inform the students on the last day of Semester End Examination along with the fee circular and same notice will be put on website and notice board for the information of the students.

3 HOI concerned will appoint the Coordinator of Assessment Cell (not below the level of Associate Professor) with supporting staff.

4 Till the said process gets over, the custody of the assessed answer books will remain with the Institute under the supervision of Coordinator of Assessment Cell.

5 **Modality of showing the assessed answer books in the class room to the interested students should be decided by the concerned HOIs.**

6 The Convener / Co-examiner will take due care while showing the assessed answer books to the students to avoid any Unfair-means used or answer book does not lost for which the person who is assigned the job will take care with the help of Assistant / Laboratory Assistant as a supporting staff can be provided by HOI / HOD.

7 **In any case the reassessment of assessed answer books will not be done.**

8 As per modality decided by the HOI, Coordinator of Assessment Cell with the help of supporting staff of the cell will issue the sealed packet of the assessed answer books to the concerned Convener / Co-examiner for showing the assessed answer books to the interested students and maintain the issue register mentioning number of assessed answer books given and will also the assessed answer books received in the same number. Both issuing authority and receiving authority will sign the register.

9 While showing the assessed answer books to the students if any mistake is found by the person showing the assessed answer book pertaining to totalling of marks, carry forwarding the marks from inside to front page and unassessed answer wilt report in prescribed format to the Coordinator of Assessment Cell along with such answer books and remaining assessed answer books should be kept in the sealed packet and give back to the Coordinator of Assessment Cell. Prescribed format is attached herewith for reporting

All cases of correction should be sent to the Dy. Registrar (Examination) in sealed cover on the same day for further process.

3.
Teaching and Examination Scheme of B Tech Semester I & II (All programmes)

TEACHING AND EXAMINATION SCHEME

B. TECH. SEMESTER – I (Computer Science & Engg., EC Engg. and IC Engg.)

To be made effective for student admitted in 2020-21

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
1	2MA101	Linear Algebra	3	1	-	4	3	0.6	-	0.4
2	2PY101	Physics/Physics	2	1	2	4	3	0.4	0.2	0.4
3	2CL102	Environmental Studies	1	1	-	2	-	1	-	-
4	2CS101	Computer Programming	2	1	2	4	3	0.4	0.2	0.4
5	2EE101	Elements of Electrical and Electronics Engineering	3	-	2	4	3	0.4	0.2	0.4
6	2EE102	Electrical Workshop	-	-	2	1	-	-	1	-
Supplementary Courses										
7	2SP101	Design Thinking	-	2	-	-	-	1	-	-
8	2SP102	ICT Tools and Cyber Security	2	-	-	-	-	1	-	-
		Total	**13**	**6**	**8**	**19**				

* The Syllabus of Physics will be different for Civil Engineering Students offered as 2CL102 Physics (Mechanics of Solids).

B. TECH. SEMESTER – II (Computer Science & Engg., EC Engg. and E&I Engg.)

To be made effective for students admitted in 2020-21

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
1	2MA201	Calculus and Differential Equation	3	1	-	4	3	0.6	-	0.4
2	2CY101	Chemistry	2	-	2	3	3	0.4	0.2	0.4
3	2ME101	Engineering Graphics	2	-	4	4	3	0.4	0.2	0.4
4	2HSB101# /2HSI101#	English Communication	1	1	2	3	3	0.4	0.2	0.4
5	2ME102	Mechanical Workshop	-	-	2	1	-	-	1	-
6	2XX201$	Introduction to XX Engineering	1	-	-	1	-	1	-	-
Supplementary Courses										
7	2SP103	Critical Thinking	-	2	-	-	-	1	-	-
8	2SP104	Yog and Meditation	-	-	2	-	-	-	1	-
		Total	**9**	**4**	**12**	**16**				

2HS101 & 2HS102 English Communication would be offered to Vernacular & English medium students respectively.

$ 2XX2XX Introduction to XXX Engineering (Branch specific course to be offered to respective branches only)

✔ 2Cs201 Introduction to Computer Science & Engineering

✔ 2EC201 Introduction to Electronics & Communication Engineering

✔ 2IC201 Introduction to Instrumentation & Control Engineering

B. TECH. SEMESTER – I (Chemical, Civil, Electrical & Mechanical)

To be made effective for students admitted in 2020-21

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
1	2MA101	Linear Algebra	3	1	-	4	3	0.6	-	0.4
2	2CY101	Chemistry	2	-	2	3	3	0.4	0.2	0.4
3	2ME101	Engineering Graphics	2	-	4	4	3	0.4	0.2	0.4
4	2HSB101# /2HSI101#	English Communication	1	1	2	3	3	0.4	0.2	0.4
5	2ME102	Mechanical Workshop	-	-	2	1	-	-	1	-
Supplementary Courses										
6	2SP103	Critical Thinking	-	2	-	-	-	1	-	-
7	2SP104	Yog and Meditation	-	-	2	-	-	-	1	-
		Total	**8**	**4**	**12**					

2HS101 & 2HS102 English Communication would be offered to Vernacular & English medium students respectively.

B. TECH. SEMESTER – II (Division H to N / / Chemical, Civil, Electrical & Mechanical)

To be made effective for students admitted in 2020-21

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
1	2MA201	Calculus and Differential Equation	3	1	-	4	3	0.6	-	0.4
2	2PY101	Physics	2	1	2	4	3	0.4	0.2	0.4
3	2CL102	Environmental Studies	1	1	-	2	-	1	-	-
4	2CS101	Computer Programming	2	1	2	4	3	0.4	0.2	0.4
5	2EE101	Elements of Electrical and Electronics Engineering	3	-	2	4	3	0.4	0.2	0.4
6	2EE102	Electrical Workshop	-	-	2	1	-	-	1	-
7	2XX201$	Introduction to XX Engineering	1	-	-	1	-	1	-	-
Supplementary Courses										
8	2SP101	Design Thinking	-	2	-	-	-	1	-	-
9	2SP102	ICT Tools and Cyber Security	2	-	-	-	-	1	-	-
		Total	**14**	**6**	**8**	**20**				

$ 2XX2XX Introduction to XXX Engineering (Branch specific course to be offered to respective branches only)

✔ 2CH201 Introduction to Chemical Engineering

✔ 2CL201 Introduction to Civil Engineering

✔ 2ME201 Introduction to Mechanical Engineering

✔ 2EE201 Introduction to Electrical Engineering

4. Teaching and Examination Scheme of B.Tech. Semester III to VIII (All programmes)

** Teaching & Examination Scheme of Sem-VII and VIII (All Programmes) is tentative.*

Teaching & Examination Scheme

B.Tech. in Chemical Engineering

B. TECH. SEMESTER -III

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2CH301	Heat Transfer Operations	2	1	2	4	3	0.4	0.2	0.4
	2CH302	Fluid Flow Operations	2	1	2	4	3	0.4	0.2	0.4
	2CH303	Solid Fluid Operations	3	-	2	4	3	0.4	0.2	0.4
	2CH304	Organic Chemistry	3	-	2	4	3	0.4	0.2	0.4
	2MA301	Applied Mathematics for Chemical Engineering	2	1	-	3	3	0.6	-	0.4
	2HS341	Principles of Management	2	-	-	2	3	0.6	-	0.4
		Total	**14**	**3**	**8**	**21**	**-**	**-**	**-**	**-**
Supplementary Course										
	2SP301	Community Services*	-	-	-	-	-	-	1.0	-

* To be offered for three weeks in summer vacation between Semester II & III.

B. TECH. SEMESTER -IV

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2CH401	Mass Transfer Operations-I	2	1	2	4	3	0.4	0.2	0.4
	2CH402	Chemical Process Industries	3	-	2	4	3	0.4	0.2	0.4
	2CH403	Instrumentation and Process Control	3	-	2	4	3	0.4	0.2	0.4
	2CH404	Chemical Engineering Thermodynamics	3	1	-	4	3	0.6	-	0.4
	2CH405	Process Calculations	3	1	-	4	3	0.6	-	0.4
	2HS342	Principles of Economics	2	-	-	2	3	0.6	-	0.4
		Total	**16**	**3**	**6**	**22**	**-**	**-**	**-**	**-**

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER V

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
1	2CH501	Mass Transfer Operations-II	2	1	2	4	3	-	0.4	0.20.4
2	2CH502	Environmental Pollution Control and Safety Management	3	-	2	4	3	-	0.4	0.20.4
3	2CH503	Modeling and Simulation	2	-	4	4	3	-	0.4	0.20.4
4	2CHDEXX	Department Elective –I	2	-	2	3	3	-	0.4	0.20.4
5	2XXOEXX	Open Elective-I	3	0	0	3	3	-	0.6	-0.4
			2	0	2			-	0.4	0.20.4
			2	1	0			-	0.6	-0.4
			1	0	4		-	-	0.4	0.6-
			0	0	6		-	-	-	1-
6	UEXXXXX	University Elective	3	0	0	3	3	-	0.6	-0.4
			2	1	0			-	0.6	-0.4
Total Credits = 21										

B. TECH. SEMESTER VI

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
1	2CH601	Chemical Reaction Engineering-I	2	1	2	4	3	-	0.4	0.20.4
2	2CH602	Process Equipment Design	3	-	2	4	3	-	0.4	0.20.4
3	2CHDEXX	Department Elective-II	2	-	2	3	3	-	0.4	0.20.4
4	2CHDEXX	Department Elective-III	3	-	-	3	3	-	0.6	-0.4
5	2XXOEXX	Open Elective-II	3	0	0	3	3	-	0.6	-0.4
			2	0	2			-	0.4	0.20.4
			2	1	0			-	0.6	-0.4
			1	0	4		-	-	0.4	0.6-
			0	0	6		-	-	-	1-
6	2HSOEXX	Humanities Elective	3	0	0	3	-	-	1	--
			2	1	0		-	-	1	--
		Total Credits: 20								

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - VII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW/ PW	SEE
1	2CH701	Chemical Reaction Engineering-II	3	-	2	4	3	-	0.4	0.2	0.4
2	2CH702	Plant Design, Economics and Project Management	3	-	-	3	3	-	0.6	-	
3	2CHDEXX	Department Elective-IV	3	-	-	3	3	-	0.4		
4	2CHDEXX	Department Elective-V	3	-	-	3	3	-	0.6	-	0.4
5	2XXOEXX	Open Elective-III	3	-	-	3	3	-	0.6	-	0.4
6	2XXOEXX	Open Elective-IV	3	-	-	3	3	-	0.6	-	0.4
7	2CH703	Minor Project	-	-	4	2	-	-	0.6	-	0.4
8	2CH704	Summer Internship*	-	-	-	1	-		-	1.0	-
		Total	**18**	**-**	**06**	**22**	**-**	**-**	**-**	**1.0**	**-**

*Summer Internship of 4 to 6 weeks in summer break at the end of Sem-VI

B. TECH. SEMESTER - VIII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW/ PW	SEE
1	2CH801	Major Project/ Internship	-	-	22	11	-	-	-	1.0	-
		Total	-	-	22	11	-	-	-	-	-

List of Departmental Electives:

Department Elective - I

No.	Course Code	Course Name	L	T	P	C
1	2CHDE51	Petroleum Refining Engineering	2	0	2	3
2	2CHDE52	Air Pollution Control Engineering	2	0	2	3
3	2CHDE53	Dyes and Dye Intermediates Technology	2	0	2	3
4	2CHDE54	Food Processing Technology	2	0	2	3

Department Elective - II

No.	Course Code	Course Name	L	T	P	C
1	2CHDE55	Nanotechnology in Chemical Sciences	2	0	2	3
2	2CHDE56	Industrial Wastewater Treatment	2	0	2	3
3	2CHDE57	Instrumental Methods in Chemical Sciences	2	0	2	3

Department Elective - III

No.	Course Code	Course Name	L	T	P	C
1	2CHDE01	Advanced Separation Techniques	3	0	0	3
2	2CHDE02	Fertilizer Technology	3	0	0	3
3	2CHDE03	Polymer Technology	3	0	0	3
4	2CHDE04	Renewable Energy Sources	3	0	0	3
5	2CHDE05	Applied Chemical Process Thermodynamics	3	0	0	3
6	2CHDE06	Solid Waste Management	3	0	0	3
7	2CHDE07	Material Science	3	0	0	3

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Department Elective-IV

2CHDE08	Process Integration
2CHDE09	Process Plant Utilities and Energy Efficiency
2CHDE10	Bioprocess and Bioseperation Engineering
2CHDE11	Fundamentals of Piping Design
2CHDE12	Pharmaceutical Technology

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Department Elective-V

2CHDE13	Transport Phenomena
2CHDE14	Environmental Impact Assessment
2CHDE15	Process Optimization
2CHDE16	Advances in Chemical Process Control
2CHDE17	Unit Processes

B. Tech. in Civil Engineering

B. TECH. SEMESTER -III

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2CL301	Structural Mechanics – I	3	0	2	4	3	0.4	0.2	0.4
	2CL302	Surveying	3	0	2	4	3	0.4	0.2	0.4
	2CL303	Construction Materials	2	0	4	4	3	0.4	0.2	0.4
	2MA302	Applied Mathematics for Civil Engineering	3	1	0	4	3	0.6	-	0.4
	2HS341	Principles of Management	2	0	0	2	3	0.6	-	0.4
	2CL304	Civil Engineering Drawing and Building Planning	0	0	4	2	-	-	1	-
		Total	**13**	**1**	**12**	**20**				
Supplementary Course										
	2SP301	Community Services *	-	-	-	-	-	-	-	1-

* To be offered for Three weeks in summer vacation between semester II and III.

B. TECH. SEMESTER -IV

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2CL401	Structural Mechanics – II	3	0	2	4	3	0.4	0.2	0.4
	2CL402	Fluid Mechanics	2	0	2	3	3	0.4	0.2	0.4
	2CL403	Construction Technology	3	0	2	4	3	0.4	0.2	0.4
	2CL404	Geotechnical Engineering	2	0	2	3	3	0.4	0.2	0.4
	2CL405	Transportation Engineering	3	0	2	4	3	0.4	0.2	0.4
	2HS342	Principles of Economics	2	0	0	2	3	0.6	-	0.4
		Total	**15**	**0**	**10**	**20**				

L=Lecture, T=Tutorial, P=LPW/PW, C=Credit, SEE=Semester-End Exam, LPW/PW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER V

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2CL501	Design of Concrete Structures	3	0	2	4	3	0.4	0.2	0.4
	2CL502	Environmental Engineering	3	0	2	4	3	0.4	0.2	0.4
	2CL503	Foundation Engineering	3	0	2	4	3	0.4	0.2	0.4
	2CLDEXX	Department Elective – I	2	1	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2CLOEXX	Open Elective – I	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
			2	1	0			0.6	-	0.4
			1	0	4		-	0.4	0.6	-
			0	0	6		-	-	1	-
	UEXXXXX	University Elective	3	0	0	3	3	0.6	-	0.4
			2	1	0			0.6	-	0.4
	2CL504	Computational Tools and Techniques	0	0	2	1	-	-	1	-
Total Credits = 22										

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER VI

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2CL601	Water Resources and Irrigation Engineering	3	0	2	4	3	0.4	0.2	0.4
	2CL602	Construction Project Management	3	0	2	4	3	0.4	0.2	0.4
	2CLDEXX	Department Elective – II	2	1	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2CLDEXX	Department Elective – III	2	1	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2CLOEXX	Open Elective – II	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
			2	1	0			0.6	-	0.4
			1	0	4		-	0.4	0.6	-
			0	0	6		-	-	1	-
	2HSOEXX	Humanities Elective	3	0	0	3	-	1	-	-
			2	1	0		-	1	-	-
	2CL603	Construction Workshop	0	0	2	1	-	-	1	-
Total Credits = 21										

B. TECH. SEMESTER - VII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	T	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2CL701	Design of Steel Structures	3	0	2	4	3	0.4	0.2	0.4
	2CL702	Professional Practice	3	0	2	4	3	0.4	0.2	0.4
	2CLDEXX	Department Elective – IV	2	1	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2CLDEXX	Department Elective – V	2	1	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2XXOEXX	Open Elective – III	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
			2	1	0			0.6	-	0.4
			1	0	4		-	0.4	0.6	-
			0	0	6		-	-	1	-
	2XXOEXX	Open Elective – IV	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2		
		2	1	0			0.6	-	0.4	
		1	0	4		-	0.4	0.6	-	
		0	0	6		-	-	1	-	
	2CL703	Minor Project	0	0	4	2	-	-	1	-
	2CL704	Summer Internship*	-	-	-	1	-	-	1	-
Total Credits = 22										

*Compulsory Summer Internship of 4 to 6 weeks duration in summer break between Semester VI and VII

B. TECH. SEMESTER - VIII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW	SEE
	2CL801	Major Project/ Internship	0	0	22	11	-	-	1	-	
		Total Credits				**11**					

List of Department Electives

Group	Course Code	Course Name	Teaching Scheme				Possible to be offered in Semester/s		
			L	T	P	C	V	VI	VII
Structural Engineering	2CLDE51	Advanced Concrete Technology	2	0	2	3	√	√	√
	2CLDE01	Advanced Solid Mechanics	2	1	0	3	√	√	√
	2CLDE52	Advanced Structural Mechanics	2	0	2	3	√	√	√
	2CLDE53	Advanced Design of Concrete Structures	2	0	2	3	-	√	√
	2CLDE02	Prestressed Concrete	2	1	0	3	-	√	√
	2CLDE54	Maintenance and Rehabilitation of Structures	2	0	2	3	-	√	√
	2CLDE03	Earthquake Resistant Design of Structures	2	1	0	3	-	-	√
Transportation and Infrastructure Engineering	2CLDE04	Port and Harbour Engineering	2	1	0	3	√	√	√
	2CLDE05	Airport Engineering	2	1	0	3	√	√	√
	2CLDE06	Traffic Engineering and Road Safety	2	1	0	3	√	√	√
	2CLDE07	Pavement Engineering	2	1	0	3	√	√	√
	2CLDE08	Infrastructure Management	2	1	0	3	-	√	√
	2CLDE09	Urban Transportation Planning	2	1	0	3	-	√	√
	2CLDE10	Urban Planning and Management	2	1	0	3	-	√	√
Construction Technology and Management	2CLDE11	Advanced Construction Technologies	2	1	0	3	√	√	√
	2CLDE12	Sustainable Building Technologies	2	1	0	3	√	√	√
	2CLDE13	Building Systems, Safety and Services	2	1	0	3	√	√	√
	2CLDE55	Geomatics	2	0	2	3	√	√	√
	2CLDE14	Advances in Construction Management	2	1	0	3	-	-	√
Geotechnical Engineering	2CLDE15	Advanced Soil Mechanics	2	1	0	3	√	√	√
	2CLDE16	Applied and Engineering Geology	2	1	0	3	√	√	√
	2CLDE56	Advanced Foundation Design	2	0	2	3	-	√	√
	2CLDE17	Geo-environmental Engineering	2	1	0	3	-	√	√
	2CLDE57	Ground Improvement Techniques	2	0	2	3	-	√	√
Environment Engineering	2CLDE18	Air and Noise Pollution	2	1	0	3	-	√	√
	2CLDE19	Solid Waste Management	2	1	0	3	-	√	√
	2CLDE58	Industrial Wastewater Treatment and Management	2	0	2	3	-	√	√
	2CLDE20	Environmental Management System	2	1	0	3	-	√	√
Water Resources Engineering	2CLDE59	Advanced Fluid Mechanics	2	0	2	3	√	√	√
	2CLDE21	Hydraulic Structures	2	1	0	3	-	-	√
	2CLDE22	Irrigation & Water Management	2	1	0	3	-	-	√

B. Tech. in Electrical Engineering

B. TECH. SEMESTER - III

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EE301	Network Analysis and Synthesis	3	1	-	4	3	0.6	-	0.4
2EE302	Signals and Systems	2	1	-	3	3	0.6	-	0.4
2EE303	Electromagnetic Field Theory	3	1	-	4	3	0.6	-	0.4
2EE304	Analog and Digital Electronics	3	-	-	3	3	0.6	-	0.4
2MA303	Applied Mathematics for Electrical Engineering	3	1	-	4	3	0.6	-	0.4
2HS341	Principles of Management	2	-	-	2	3	0.6	-	0.4
2EE305	Analog and Digital Electronics Laboratory	-	-	4	2	-	-	1.0	-
	Total	**16**	**4**	**4**	**22**				
Supplementary Course									
2SP301	Community Services*	-	-	-	-	-	-	1.0	-

* To be offered for Three weeks in summer vacation between semester II and III.

B. TECH. SEMESTER - IV

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EE401	Control Systems Engineering	2	-	2	3	3	0.4	0.2	0.4
2EE402	Electrical Measurements and Transducers	2	-	2	3	3	0.4	0.2	0.4
2EE403	Fundamentals of Power System	3	1	-	4	3	0.6	-	0.4
2EE404	Transformers and DC Machines	3	-	2	4	3	0.4	0.2	0.4
2EE405	Power Electronic Converters and Applications	3	-	-	3	3	0.6	-	0.4
2HS342	Principles of Economics	2	-	-	2	3	0.6	-	0.4
2EE406	Power Electronics Laboratory	-	-	4	2	-	-	1.0	-
	Total	**15**	**1**	**10**	**21**				

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - V

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EE501	Rotating AC Machines	3	-	2	4	3	0.4	0.2	0.4
2EE502	Electrical Power System Analysis	3	-	2	4	3	0.4	0.2	0.4
2EE503	Microprocessor and Microcontrollers	3	-	2	4	3	0.4	0.2	0.4
2EEDEXX	Department Elective-I	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	0.4
2XXOEXX	Open Elective – I	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	0.4
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1	-
UEXXXXX	University Elective	3	0	0	3	3	0.6	-	0.4
		2	1	0			0.6	-	0.4
	Total Credits - 21								

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - VI

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EE601	Power System Protection and Switchgear	3	-	2	4	3	0.4	0.2	0.4
2EE602	Electric Drives	2	-	2	3	3	0.4	0.2	0.4
2EE603	Electronic System Design Laboratory	-	-	2	1	-	-	1.0	-
2EEDEXX	Department Elective-II	3	-	-	3	3	0.6	-	0.4
2EEDEXX	Department Elective-III	2	-	2	3	3	0.4	0.2	0.4
2XXOEXX	Open Elective – II	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	0.4
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1	-
2HSOEXX	Humanities Elective	3	0	0	3	-	1	-	-
		2	1	0		-	1	-	-
	Total Credits - 20								

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - VII

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EE701	Power System Operation and Control	2	0	2	3	3	0.4	0.2	0.4
2EE702	Electrical Machine Design	3	0	2	4	3	0.4	0.2	0.4
2EEDEXX	Department Elective-IV	3	0	0	3	3	0.6	-	0.4
2EEDEXX	Department Elective-V	2	0	2	3	3	0.4	0.2	0.4
2XXOEXX	Open Elective – III	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	0.4
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1.0	-
2XXOEXX	Open Elective – IV	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	0.4
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1.0	-
2EE703	Minor Project	0	0	4	2	-	-	1.0	-
2EE704	Summer Internship*	-	-	-	1	-	-	1.0	-
Total Credits - 21									

B. TECH. SEMESTER - VIII

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EE801	Major Project / Internship	-	-	24	11	-	-	1	-
	Total	**-**	**-**	**-**	**11**				

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

Department Elective – I (Sem. V – EE)

No.	Course Code	Course Name	L	T	P	C
1	2EEDE01	Electrical Power Supply Design	3	0	0	3
2	2EEDE02	Modern Control Theory	3	0	0	3
3	2EEDE03	Utilization of Electric Power	3	0	0	3
4	2EEDE51	DC Drives	2	0	2	3
5	2EEDE52	High Voltage Engineering	2	0	2	3
6	2EEDE53	Data Structures and Algorithms	2	0	2	3

Department Elective – I (Sem. V – EE)

No.	Course Code	Course Name	L	T	P	C
1	2EEDE04	Modelling of Electrical Machines	3	0	0	3
2	2EEDE05	Distributed Generation and Microgrid	3	0	0	3
3	2EEDE06	Analog and Digital Communications	3	0	0	3
4	2EEDE07	Smart Grid	3	0	0	3
5	2EEDE08	Electrical Distribution and Automation	3	0	0	3
6	2EEDE09	Multi – Level Inverters	3	0	0	3

Department Elective – III (Sem. VI-EE)

No.	Course Code	Course Name	L	T	P	C
1	2EEDE54	Special Electrical Machines	2	0	2	3
2	2EEDE55	Advanced Controllers in Power Electronic Systems	2	0	2	3
3	2EEDE56	Testing and Commissioning of Electrical Equipment	2	0	2	3
4	2EEDE57	Power Electronics in Renewable Energy Conversion	2	0	2	3
5	2EEDE58	Advanced Microcontrollers	2	0	2	3

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. Tech. in Mechanical Engineering

B. TECH. SEMESTER - III

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2ME301	Material Science and Engineering	3	0	2	4	3	0.4	0.2	0.4
2ME302	Manufacturing Processes-I	3	0	2	4	3	0.4	0.2	0.4
2ME303	Thermodynamics	3	0	0	3	3	0.6	-	0.4
2ME304	Theory of Machines	3	0	2	4	3	0.4	0.2	0.4
2ME305	Mechanics of Solids	2	1	0	3	3	0.6	-	0.4
2HS341	Principles of Management	2	0	0	2	3	0.6	-	0.4
2ME306	Introduction to Computer Aided Drafting	0	0	2	1	-	-	1	-
	Total	**16**	**1**	**8**	**21**	**-**	**-**	**-**	**-**
Supplementary Course									
2SP301	Community Services *	-	-	-	-	-	-	1	-

* Compulsory community services of three weeks duration in summer break between semester II and III.

B. TECH. SEMESTER - IV

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2ME401	Metrology & Quality Control	3	0	2	4	3	0.4	0.2	0.4
2ME402	Fluid Mechanics & Hydraulic Machines	3	0	2	4	3	0.4	0.2	0.4
2ME403	Manufacturing Processes-II	3	0	2	4	3	0.4	0.2	0.4
2ME404	Dynamics of Machines	3	0	2	4	3	0.4	0.2	0.4
2MA401	Mathematics for Mechanical Engineering	2	1	0	3	3	0.6	-	0.4
2HS342	Principles of Economics	2	0	0	2	3	0.6	-	0.4
2ME405	Introduction to Machine Design	0	0	2	1	-	-	1	-
	Total	**16**	**1**	**10**	**22**	**-**	**-**	**-**	**-**

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER V

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2ME501	Machine Design-I	3	0	2	4	3	0.4	0.2	0.4
	2ME502	Automation and Control	3	0	2	4	3	0.4	0.2	0.4
	2ME503	Heat and Mass Transfer	3	0	2	4	3	0.4	0.2	0.4
	2EE551	Electrical Machines	0	0	2	1	-	-	1	-
	2MEDEXX	Department Elective – I	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2XXOEXX	Open Elective – I	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	0.4
			2	1	0			0.6	-	0.4
			1	0	4		-	0.4	0.6	-
			0	0	6		-	-	1	-
	UEXXXXX	University Elective	3	0	0	3	3	0.6	-	0.4
			2	1	0			0.6	-	0.4
		Total Credits = 22								

B. TECH. SEMESTER VI

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2ME601	Energy Systems – I	3	0	2	4	3	0.4	0.2	0.4
	2ME602	Machine Design – II	3	0	0	3	3	0.6	-	0.4
	2MEDEXX	Department Elective – II	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2MEDEXX	Department Elective – III	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	
	2XXOEXX	Open Elective – II	3	0	0	3	3	0.6	-	0.4
			2	0	2			0.4	0.2	0.4
			2	1	0			0.6	-	0.4
			1	0	4		-	0.4	0.6	-
			0	0	6		-	-	1	-
	2HSOEXX	Humanities Elective	3	0	0	3	-	1	-	-
			2	1	0		-	1	-	-
		Total Credits=19								

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER VII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2MEXXX	Manufacturing Technology and Management	3	0	2	4	3	0.4	0.2	0.4
	2MEXXX	Energy Systems-II	3	0	0	3	3	0.6	-	0.4
	2MEDEXX	Department Elective – IV	3/2	0	0/2	3	3	0.6	-	0.4
								0.4	0.2	
	2MEDEXX	Department Elective – V	3/2	0	0/2	3	3	0.6	-	0.4
								0.4	0.2	
	2XXOEXX	Open Elective – III	3/2	0	0/2	3	3	0.6	-	0.4
	2XXOEXX	Open Elective - IV	3/2	0	0/2	3	3	0.6	-	0.4
	2MEXXX	Minor Project	0	0	4	2	-	-	1	-
		Total	**-**	**0**	**-**	**21**	**-**	**-**	**-**	**-**

B. TECH. SEMESTER VI

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	CE	LPW	SEE
	2MEXXX	Major Project/Internship	-		24	12	-	-	1.00	-
		Total	**-**		**24**	**12**				

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

List of Department Elective Courses

Department Elective - I

No.	Course Code	Course Name	L	T	P	C
1.	2MEDE01	Advanced Thermodynamics	3	0	0	3
2.	2MEDE02	Basics of Flight and Aerodynamics	3	0	0	3
3.	2MEDE03	Stress Analysis	3	0	0	3
4.	2MEDE04	Process Planning & Cost Estimation	3	0	0	3
5.	2MEDE05	Composite Materials	3	0	0	3
6.	2MEDE06	Foundry Technology	3	0	0	3
7.	2MEDE51	Experimental Methods	2	0	2	3
8.	2MEDE52	Robotic Engineering	2	0	2	3
9.	2MEDE53	Industrial Design	2	0	2	3
10.	2MEDE54	Mechanism Analysis and Design	2	0	2	3
11.	2MEDE55	Maintenance Engineering and Asset Management	2	0	2	3

Department Elective - II

No.	Course Code	Course Name	L	T	P	C
1.	2MEDE07	Gas Dynamics	3	0	0	3
2.	2MEDE08	Micro Electro Mechanical Systems	3	0	0	3
3.	2MEDE09	Machine Tool Design	3	0	0	3
4.	2MEDE10	Fatigue Creep Fracture	3	0	0	3
5.	2MEDE11	Advanced Metal Forming	3	0	0	3
6.	2MEDE12	Advanced Welding Technology	3	0	0	3
7.	2MEDE13	Quality And Reliability Engineering	3	0	0	3
8.	2MEDE14	Surface Engineering	3	0	0	3
9.	2MEDE56	Fundamentals of Computational Fluid Dynamics	2	0	2	3
10.	2MEDE57	Heat Exchangers	2	0	2	3
11.	2MEDE58	Refrigeration Engineering	2	0	2	3
12.	2MEDE59	Automobile Engineering	2	0	2	3
13.	2MEDE60	Condition Monitoring of Mechanical Equipment	2	0	2	3
14.	2MEDE61	Basics of Machine Learning	2	0	2	3
15.	2MEDE62	Mobile Robotics	2	0	2	3
16.	2MEDE63	Tribology	2	0	2	3
17.	2MEDE64	Failure Analysis	2	0	2	3
18.	2MEDE65	CNC Technology And Programming	2	0	2	3
19.	2MEDE66	Hydraulics and Pneumatics	2	0	2	3
20.	2MEDE67	Work Study	2	0	2	3

B. Tech. in Computer Science and Engineering

B. TECH. SEMESTER - III

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2CS301	Data Structures and Algorithms	3	-	2	4	3	0.4	0.2	0.4
2CS302	Object Oriented Programming	2	-	4	4	3	0.4	0.2	0.4
2CS303	Digital Electronics	2	-	2	3	3	0.4	0.2	0.4
2CS304	Digital Communications	2	1	-	3	3	0.6	-	0.4
2CS305	Discrete Mathematics	2	1	-	3	3	0.6	-	0.4
2HS342	Principles of Economics	2	-		2	3	0.6	-	0.4
	Total	**13**	**2**	**8**	**19**				
2SP301	Community Services*	-	-	1	-	-	-	-	-

*To be offered for three weeks in summer vacation between semester II & III

B. TECH. SEMESTER - IV

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2CS401	Computer Architecture	3	1	-	4	3	0.6	-	0.4
2CS402	Database Management Systems	3	-	2	4	3	0.4	0.2	0.4
2CS403	Operating Systems	3	-	2	4	3	0.4	0.2	0.4
2CS404	Programming for Scientific Computing	2	-	2	3	3	0.4	0.2	0.4
2MA402	Probability and Statistics	2	-	2	3	3	0.4	0.2	0.4
2HS341	Principles of Management	2	-	-	2	3	0.6	-	0.4
2CS405	Web Technologies	-	-	4	2	-	-	1.0	-
	Total	**15**	**1**	**12**	**22**				

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - V

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW	SEE
1	2CS501	Machine Learning	3	-	2	4	3	2	0.4	0.2	0.4
2	2CS502	Computer Networks	3	-	2	4	3	2	0.4	0.2	0.4
3 0.4	2CS503	Design and Analysis of Algorithms	2	1	2		4	3	2	0.4	0.2
4	2CS504	Software Engineering	3	-	2	4	3	2	0.4	0.2	0.4
5	2XXOEXX	Open Elective-I	3	-	-	3	3	-	0.6	-	0.4
			2	-	2		3	2	0.4	0.2	0.4
			2	1	-		3	-	0.6	-	0.4
			1	-	4		3	2	0.4	0.6	-
			0	-	6		-	2	-	1	-
6	2HSOEXX	Humanities Elective	3	-	-	3	3	-	0.6	-	0.4
			2	1	-		3	-	0.6	-	0.4
		Total Credits=22									

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - VI

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW	SEE
1	2CS501	Machine Learning	3	-	2	4	3	2	0.4	0.2	0.4
2	2CS502	Computer Networks	3	-	2	4	3	2	0.4	0.2	0.4
3	2CS503	Design and Analysis of Algorithms	2	1	2	4	3	2	0.4	0.2	0.4
4	2CS504	Software Engineering	3	-	2	4	3	2	0.4	0.2	0.4
	2XXOEXX	Open Elective-I	3	-	-	3	3	-	0.6	-	0.4
			2	-	2		3	2	0.4	0.2	0.4
			2	1	-		3	-	0.6	-	0.4
			1	-	4		3	2	0.4	0.6	-
			0	-	6		-	2	-	1	-
6	2HSOEXX	Humanities Elective	3	-	-	3	3	-	0.6	-	0.4
			2	1	-		3	-	0.6	-	0.4
Total Credits=22											

B. TECH. SEMESTER - VII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW	SEE
1	2CS701	Compiler Construction	3	-	2	4	3	2	0.4	0.2	0.4
2	2CS702	Big Data Analytics	2	-	2	3	3	2	0.4	0.2	0.4
3	2CSDEXX	Department Elective –IV	3	-	2	4	3	2	0.4	0.2	0.4
4	2CSDEXX	Department Elective –V	2	-	2	3	3	2	0.4	0.2	0.4
5	2XXOEXX	Open Elective-III	3	-	-	3	3	-	0.6	-	0.4
			2	-	2		3	2	0.4	0.2	0.4
			2	1	-		3	-	0.6	-	0.4
			1	-	4		-	2	0.4	0.6	-
			0	-	6		-	2	-	1	-
6	2XXOEXX	Open Elective-IV	3	-	-	3	3	-	0.6	-	0.4
			2	-	2		3	2	0.4	0.2	0.4
			2	1	-		3	-	0.6	-	0.4
			1	-	4		-	2	0.4	0.6	-
			0	-	6		-	2	-	1	-
7	2CS703	Minor Project	-	-	4	2	-	2	-	1.0	-
8	2CS704	Summer Internship	-	-	-	1	-	-	-	1.0	-
Total Credits - 23											

B. TECH. SEMESTER - VII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW	SEE
1		Major Project	-	-	-	11	-		-	1.0	-
		Total	**-**	**-**	**-**	**11**					

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

List of Department Elective Courses

Department Elective - I

No.	Course Code	Course Name	L	T	P	C
1	2CSDE51	Mobile Communications	2	-	2	3
2	2CSDE52	Optimization Techniques	2	-	2	3
3	2CSDE53	Information Retrieval Systems	2	-	2	3
4	2CSDE54	Information and Network Security	2	-	2	3
5	2CSDE55	Agile Software Development	2	-	2	3
6	2CSDE56	Graph Theory	2	-	2	3
7	2CSDE57	Embedded Systems	2	-	2	3
8	2CSDE58	High Performance Computing	2	-	2	3
9	2CSDE59	Complexity Theory	2	-	2	3

Department Elective - II

No.	Course Code	Course Name	L	T	P	C
1	2CSDE69	LAMP Technology	2	-	2	3
2	2CSDE70	Natural Language Processing	2	-	2	3
3	2CSDE71	Data Mining	2	-	2	3
4	2CSDE72	Secure Software Engineering	2	-	2	3
5	2CSDE73	Stochastic Processes and Simulation	2	-	2	3
6	2CSDE74	Design of Operating Systems	2	-	2	3
7	2CSDE75	Advanced Data structures	2	-	2	3

B. Tech. in Electronics & Communication Engineering

B. TECH. SEMESTER - III

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EC301	Electronic Devices and Circuits	3	-	2	4	3	0.4	0.2	0.4
2EC302	Signals and Systems	3	-	-	3	3	0.6	-	0.4
2EC303	Digital Logic Design	4	-	-	4	3	0.6	-	0.4
2EC304	Network Theory	3	-	-	3	3	0.6	-	0.4
2MA304	Vector Calculus, Complex Variable and Probability Distribution	3	1	-	4	3	0.6	-	0.4
2HS342	Principles of Economics	2	-	-	2	3	0.6	-	0.4
2EC305	Digital Design Laboratory	-	-	2	1	-	-	1	-
	Total	**18**	**1**	**4**	**21**	**-**	**-**	**-**	**-**
Supplementary Course									
2SP301	Community Services*	-	-	-	-	-	-	1.0	-

* To be offered for three weeks in summer vacation between Semester II & III.

B. TECH. SEMESTER - IV

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EC401	Electromagnetics and Wave Propagation	3	-	-	3	3	0.6	-	0.4
2EC402	Analog Circuits	3	-	2	4	3	0.4	0.2	0.4
2EC403	Communication Systems	3	-	2	4	3	0.4	0.2	0.4
2EC404	Microprocessors and Microcontrollers	3	-	2	4	3	0.4	0.2	0.4
2IC421	Control Systems	2	-	2	3	3	0.4	0.2	0.4
2HS341	Principles of Management	2	-	-	2	3	0.6	-	0.4
	Total	**16**	**-**	**08**	**20**	**-**	**-**	**-**	**-**

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - V

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EC501	VLSI Design	3	0	2	4	3	0.4	0.2	0.4
2EC502	Digital Signal Processing	3	0	2	4	3	0.4	0.2	0.4
2EC503	Digital Communication	3	0	2	4	3	0.4	0.2	0.4
2ECDEXX	Department Elective – I (with lab)	3	0	2	4	3	0.4	0.2	0.4
2XXOEXX	Open Elective – I	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1	-
2HSOEXX	Humanities Elective	3	0	0	3	-	1	-	-
		2	1	0		-	1	-	-
	Total Credits = 22								

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - VI

w.e.f. 2020-21

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2EC601	Computer Architecture	3	0	2	4	3	0.4	0.2	0.4
2EC602	Machine Learning	2	0	2	3	3	0.4	0.2	0.4
2ECDEXX	Department Elective–II (without Lab)	3	0	0	3	3	0.6	-	0.4
2ECDEXX	Department Elective-III (with Lab)	3	0	2	4	3	0.4	0.2	0.4
2XXOEXX	Open Elective – II	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1	-
UEXXXXX	University Elective	3	0	0	3	3	0.6	-	0.4
		2	1	0			0.6	-	0.4
	Total Credits = 20								

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - VII

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2ECXXX	Microwave and Antenna Engineering	3	0	2	4	3	0.4	0.2	0.4
2ECXXX	Computer Networks	3	0	0	3	3	0.6	-	0.4
2ECDEXX	Department Elective – IV (without Lab)	3	0	0	3	3	0.6	-	0.4
2ECDEXX	Department Elective – V (with lab)	3	0	2	4	3	0.4	0.2	0.4
2XXOEXX	Open Elective – III	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1	-
2XXOEXX	Open Elective – IV	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	0.4
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1	-
2ECXXX	Minor Project*	0	0	4	2	-	-	1	-
	Total Credits = 22								

* The Mini Project will start during summer vacation (3 weeks) between Semester VI and VII.

B. TECH. SEMESTER - VIII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	LPW/ PW	T	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW	SEE
	2EC801	Major Project / Internship	0	0	24	12	-	-	-	1	-
		Total Credits				**12**					

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

List of Department Elective Courses

Department Elective - I (Sem. – V)

No.	Course Code	Course Name	L	T	P	C
1	2ECDE51	Image Processing	3	0	2	4
2	2ECDE52	Fiber Optic Communication	3	0	2	4
3	2ECDE53	Mobile Programming	3	0	2	4
4	2ECDE54	System on Chip Design	3	0	2	4
5	2ECDE55	Scripting Language	3	0	2	4

Department Elective - II (Sem. – VI)

No.	Course Code	Course Name	L	T	P	C
1	2ECDE01	Speech and Audio Processing	3	0	0	3
2	2ECDE02	Satellite Communication	3	0	0	3
3	2ECDE03	Optical Devices and Networks	3	0	0	3
4	2ECDE04	Analog CMOS Integrated Circuits	3	0	0	3
5	2ECDE05	Electronic System Design	3	0	0	3

Department Elective - III (Sem. – VI)

No.	Course Code	Course Name	L	T	P	C
1	2ECDE56	Multimedia System	3	0	2	4
2	2ECDE57	Wireless Communication	3	0	2	4
3	2ECDE58	Information and Coding Theory	3	0	2	4
4	2ECDE59	Testing and Verification of Digital Circuits	3	0	2	4
5	2ECDE60	Embedded Systems	3	0	2	4

B. Tech. in Electronics & Control Engineering

B. TECH. SEMESTER - III

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2IC301	Control Theory	3	1	0	4	3	0.6	-	0.4
2IC302	Microprocessors and Micro Controllers	3	0	2	4	3	0.4	0.2	0.4
2IC303	Basic Electronics3	0	2	4	3	0.4	0.2	0.4	
2IC304	Circuit Theory	3	0	2	4	3	0.4	0.2	0.4
2MA305	Applied Mathematics for Instrumentation and Control Engineering	3	1	0	4	3	0.6	-	0.4
2HS342	Principles of Economics	2	0	0	2	3	0.6	-	0.4
	Total	**17**	**2**	**6**	**22**	**-**	**-**	**-**	**-**
Supplementary Course									
2SP301	Community Services*	-	-	-	-	-	-	1.0	-

* To be offered for three weeks in summer vacation between Semester II & III.

B. TECH. SEMESTER - IV

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2IC401	Signals and Systems	3	0	0	3	3	0.6	-	0.4
2IC402	Industrial Electronics	3	0	2	4	3	0.4	0.2	0.4
2IC403	Electrical and Electronics Measurement	3	0	2	4	3	0.4	0.2	0.4
2IC404	Control System Design	3	0	2	4	3	0.4	0.2	0.4
2IC405	Linear Integrated Circuits	3	0	2	4	3	0.4	0.2	0.4
2HS341	Principles of Management	2	0	0	2	3	0.6	-	0.4
	Total	**17**	**0**	**8**	**21**	**-**	**-**	**-**	**-**

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - V

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2IC501	Process Control	3	0	2	4	3	0.4	0.2	0.4
2IC502	Transducers and Measurement	3	0	2	4	3	0.4	0.2	0.4
2IC503	Machine Learning	2	0	2	3	3	0.4	0.2	0.4
2ICDExx	Department Elective-I (with laboratory)	2	0	2	3	3	0.4	0.2	0.4
2xxOExx	Open Elective – I	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1	-
2HSOEXX	Humanities Elective	3	0	0	3	-	1	-	-
		2	1	0		-	1	-	-
	Total Credits = 20								

B. TECH. SEMESTER - VI

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2IC601	Industrial Drives and Control	3	0	2	4	3	0.4	0.2	0.4
2IC602	Industrial Instrumentation	3	0	2	4	3	0.4	0.2	0.4
2IC603	Instrumentation Laboratory	0	0	2	1	-	-	1.0	-
2ICDEXX	Department Elective-II (without lab.)	3	0	0	3	3	0.6	-	0.4
2ICDEXX	Department Elective-III (with lab)	2	0	2	3	3	0.4	0.2	0.4
2XXOEXX	Open Elective-II	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	
		1	0	4			0.4	0.6	
		0	0	6			-	1	
UEXXXXX	University Elective	3	0	0	3	3	0.6	-	0.4
		2	1	0			0.6	-	0.4
	Total Credits = 21								

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

B. TECH. SEMESTER - VII

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	CE	LPW	SEE
2IC701	Process Automation	3	0	2	4	3	0.4	0.2	0.4
2IC702	Nonlinear and Digital Control	2	0	2	3	3	0.4	0.2	0.4
2IC703	Minor Project	0	0	4	2	-	-	1.0	-
2IC704	Summer Internship*	0	0	0	1	-	-	1.0	-
2XXOEXX	Open Elective – III	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1.0	-
2XXOEXX	Open Elective – IV	3	0	0	3	3	0.6	-	0.4
		2	0	2			0.4	0.2	
		2	1	0			0.6	-	
		1	0	4		-	0.4	0.6	-
		0	0	6		-	-	1.0	-
2ICDEXX	Department Elective IV (with Laboratory)	2	0	2	3	3	0.4	0.2	0.4
2ICDEXX	Department Elective V (without Laboratory)	3	0	0	3	3	0.6	-	0.4
Total Credits: 22									

B. TECH. SEMESTER - VIII

Sr No.	Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme				
			L	T	P	C	Duration Hours		Component Weightage		
							SEE	LPW/ PW	CE	LPW	SEE
	2IC801	Major Project/Internship	-	-	22	11	-	-	-	1.00	-
		Total	**-**	**-**	**22**	**11**					

L=Lecture, T=Tutorial, P=LPW, C=Credit, SEE=Semester-End Exam, LPW = Lab/Project Work, CE=Continuous Evaluation

List of Department Elective Courses

Department Elective - I

No.	Course Code	Course Name	L	T	P	C
1.	2ICDE51	Embedded Controller based Design	2	0	2	3
2.	2ICDE52	Advanced Microprocessor and its Application	2	0	2	3
3.	2ICDE53	Advanced Microcontrollers and its Applications	2	0	2	3
4.	2ICDE54	Mechatronics	2	0	2	3
5.	2ICDE55	Advanced Process Control	2	0	2	3
6.	2ICDE56	Biomedical Instrumentation	2	0	2	3
7.	2ICDE57	Digital Design for Instrumentation	2	0	2	3
8.	2ICDE58	Digital Signal Processing	2	0	2	3
9.	2ICDE59	Image Processing and its Applications	2	0	2	3
10.	2ICDE60	Factory Automation	2	0	2	3

Department Elective - II

No.	Course Code	Course Name	L	T	P	C
1.	2ICDE01	Advanced Sensors	3	0	0	3
2.	2ICDE02	Robot Dynamics and Control	3	0	0	3
3.	2ICDE03	Data Communication and Industrial Networking	3	0	0	3

Department Elective - III

No.	Course Code	Course Name	L	T	P	C
1.	2ICDE51	Embedded Controller based Design	2	0	2	3
2.	2ICDE52	Advanced Microprocessor and its Application	2	0	2	3
3.	2ICDE53	Advanced Microcontrollers and its Applications	2	0	2	3
4.	2ICDE54	Mechatronics	2	0	2	3
5.	2ICDE55	Advanced Process Control	2	0	2	3
6.	2ICDE56	Biomedical Instrumentation	2	0	2	3
7.	2ICDE57	Digital Design for Instrumentation	2	0	2	3
8.	2ICDE58	Digital Signal Processing	2	0	2	3
9.	2ICDE59	Image Processing and its Applications	2	0	2	3
10.	2ICDE60	Factory Automation	2	0	2	3

OPEN ELECTIVE COURSES

Open Elective Course (Technical Pool)

Sr. No.	Course Code	Course Name	Department, which offers the course	Eligible students, who can opt the course
1	2CHOE01	Chemical Analytical Techniques	Chemical Engg.	Other than Chemical Engg. Students
2	2CHOE02	Air Pollution Control Techniques	Chemical Engg.	Other than Chemical Engg. Students
3	2CLOE01	Intelligent Transportation System	Civil Engg.	All Engg. Students
4	2CLOE02	Remote Sensing, GIS and GPS	Civil Engg.	Other than Civil Engg. Students and except the B. Tech. students, who have opted for University Elective course on "*GIS and Remote Sensing*" offered by IAP-NU
5	2CLOE03	Composite Materials	Civil Engg.	Other than Mechanical Engg. Students
6	2CLOE04	Finite Element Method	Civil Engg.	Other than Mechanical Engg. Students
7	2EEOE01	Electrical Machines and Applications	Electrical Engg.	Other than Electrical Engg. Students
8	2EEOE02	Electrical Power Utilisation and Safety	Electrical Engg.	Other than Electrical Engg. Students
9	2MEOE01	Introduction to Robotics	Mechanical Engg.	Other than Mechanical Engg. Students
10	2MEOE04	Introduction to Automobile Engineering	Mechanical Engg.	Other than Mechanical Engg. Students
11	2CSOE51	Machine Learning	Computer Science & Engg.	Other than Computer Science & Engg., EC and IC Engg. Students
12	2CSOE01	IoT Analytics	Computer Science & Engg.	Other than Computer Science & Engg. Students
13	2CSOE02	Cloud Computing	Computer Science & Engg.	Other than Computer Science & Engg. Students

14	2CSOE52	Data Structures	Computer Science & Engg.	Other than Computer Science & Engg. Students
15	2CSOE53	Operating Systems	Computer Science & Engg.	Other than Computer Science & Engg. Students
16	2CSOE03	Data Analytics	Computer Science & Engg.	Other than Computer Science & Engg. Students
17	2ICOE26	Building Automation	Instrumentation & Control	All Engg. Students
18	2ICOE51	Programmable Logic Controller	Instrumentation & Control	Other than IC Engg. Students

Open Elective Course (Mixed Pool)

Sr. No.	Course Code	Course Name	Department, which offers the course	Eligible students, who can opt the course
1	2CLOE26	Disaster Management	Civil Engg.	All Engg. Students
2	2CLOE27	Environmental Pollution and Legislation	Civil Engg.	Other than Civil and Chemical Engg. Students
3	2CLOE28	Road Safety and Management	Civil Engg.	Other than Civil Engg. Students
4	2CLOE29	Project Management	Civil Engg.	Other than Civil Engg. Students
5	2EEOE51	Energy Management and Audit	Electrical Engg.	All Engg. Students
6	2EEOE52	Design, Estimation and Costing of Electrical Systems	Electrical Engg.	All Engg. Students
7	2MEOE02	Renewable Energy Sources	Mechanical Engg.	Other than Mechanical, Chemical & Electrical Engg. Students
8	2MEOE03	Basics of Quality Management	Mechanical Engg.	Other than Mechanical Engg. Students
9	2CSOE76	Object Oriented Programming	Computer Science & Engg.	Other than Computer Science & Engg. Students

10	2CSOE77	Web Technology	Computer Science & Engg.	Other than Computer Science & Engg. Students
11	2CSOE78	Scientific Programming	Computer Science & Engg.	Other than Computer Science & Engg. Students
12	2CSOE79	Mobile Application Development	Computer Science & Engg.	Other than Computer Science & Engg. Students
13	2HSOE51	Entrepreneurship Development	Maths & Humanities Department	All Engg. Students
14	2HSOE52	Introduction to Econometrics	Maths & Humanities Department	All Engg. Students
15	2HSOE53	Organizational Behaviour	Maths & Humanities Department	All Engg. Students
16	2HSOE54	Introduction to Accounting	Maths & Humanities Department	All Engg. Students
17	2HSOE55	Elements of Marketing Management	Maths & Humanities Department	All Engg. Students
18	2HSOE56	Banking and Finance	Maths & Humanities Department	All Engg. Students
19	2MAOE26	Operations Research	Maths & Humanities Department	Other than Mechanical Engg. And Civil Engg. Students
20	2MAOE27	Applied Statistics	Maths & Humanities Department	Other than Computer Science & Engg. Students
21	2MAOE28	Introduction to Research Methodology	Maths & Humanities Department	All Engg. Students
22	2MAOE29	General Biology	Maths & Humanities Department	All Engg. Students

23	2MAOE76	Introduction to Moving Images: Animation	Maths & Humanities Department	All Engg. Students
24	2MAOE77	UI/UX Design	Maths & Humanities Department	All Engg. Students

Open Elective Course (Humanities Pool)

Sr. No.	Course Code	Course Name	Department, which offers the course	Eligible students, who can opt the course
1	2HSOE01	Personality Development	Maths & Humanities Department	All Engg. Students
2	2HSOE02	Introduction to Literature		
3	2HSOE03	Media, Culture and Society		
4	2HSOE04	Technical Writing		
5	2HSOE05	Ethics and Values		
6	2HSOE06	Gender Communication		
7	2HSOE07	Modern Indian History		
8	2HSOE08	Indian Society		
9	2HSOE09	History of Science and Technology in India		

UNIVERSITY ELECTIVES

Sr. No.	Course Code	Course Name	Offered by
1.	UEIT001	Applied Literature	**Institute of Technology** (Noti.No. NU-52 dated 08.05.2015)
2.	UEIT002	Technical Writing	
3.	UEIT003	Critical and Creative Thinking	
4.	UEIT004	Information and Communication Technology	
5.	UEIT005	Cyber Security	
6.	UEIT006	Mobile Application Development	
7.	UEIT007	Data Analytics	
8.	UEIT008	Introduction to Renewable Energy Sources	
9.	UEIT009	Environmental Conservation for Sustainable Development	
10.	UEIM001	Indian Economy	**Institute of Management** (Noti.No. NU-68 dated 11.05.2015 and NU-21 dated 07.03.2017)
11.	UEIM002	Introduction to Strategic Management	
12.	UEIM003	Fundamentals of International Business	
13.	UEIM004	Elements of Management	
14.	UEIM005	Managerial Skills	
15.	UEIM006	Human Resource Management	
16.	UEIM007	Financial Management	
17.	UEIP001	Cosmetic Technology	**Institute of Pharmacy** (Noti. Nos. NU-53 dated 17.05.2011, NU-61 dated 09.05.2015, NU-40 dated 05.05.2017, NU-30 dated 27.07.2020)
18.	UEIP002	Drug Laws	
19.	UEIP004	Green Chemistry	
20.	UEIP005	Methods in Drug Evaluation	
21.	UEIP006	Pharmaceutical Jurisprudence	
22.	UEIP007	Advanced Instrumental Techniques	
23.	UEIP008	Drug Discovery and Development	
24.	UEIP013	Health and Nutrition	
25.	UEIP014	Fundamentals of Biomolecules	
26.	UEIP015	Life Style Disorders and their Management–Theory	
27.	UEIP016	Good Manufacturing Practices and Technology Transfer-Theory	
28.	UEIP017	Fundamentals of Experimental Design for Optimization-Theory	

29	UEIP018	Global Regulations on Medical Devices	
30.	UEIP019	Complementary and Alternative systems of Medicine–Theory	
31	UEIP020	Functional Foods and Health Supplements–Theory	
32.	UEIL001	Biotechnology and Law	**Institute of Law** (Noti.No. NU-68 dated 19.05.2011, NU-73 dated 11.05.2015, NU-232 dated 22.04.2016 and NU-066 dated 11.05.2017)
33	UEIL002	Information Technology and Cyber Law	
34	UEIL003	Air and Space Law	
35	UEIL004	Maritime Law	
36	UEIL005	Nanotechnology and Law	
37	UEIL006	Health and Law	
38	UEIL007	Forensic Science and Law	
39	UEIL008	Energy and Law	
40	UEIL009	Cyber Law	
40	UEIL010	Patent Law	
42	UEIL011	Introduction to the Indian Constitution	
43	UEIL012	Introduction to Human Rights	
44	UEIL013	Rights to Information	
45	UEIL014	Intellectual Property Rights	
46.	UEIA001	GIS and Remote Sensing	**Institute of Architecture & Planning** (Noti. No. Nu – 101 dated 15.07.2017)

INSTITUTE ELECTIVES

The Institute Elective / University Elective courses are meant to provide exposure to management, humanities, science, Law, interdisciplinary / inter- Institute courses of their interest offered by the other departments in case of Institute Elective and other Institutes in case of University Elective courses.

For the students admitted in 2018-19, list of Institute/ University Elective courses are under revision and it will be updated on Institute website after finalizing those courses.

INSTITUTE ELECTIVES

The Institute Elective / University Elective courses are meant to provide exposure to management, humanities, science, Law, interdisciplinary / inter- Institute courses of their interest offered by the other departments in case of Institute Elective and other Institutes in case of University Elective courses.

No.	Course Code	Course Name	Offered by	Offered to
i.	EC001	Satellite Communication	E.C. Engg.	Other than EC Engg.
ii.	EC002	Embedded System		
iii.	EC003	Wireless Sensor Network		
iv.	EC004	Fiber Optic Communication		
v.	EC005	Applied Nanoscience		
vi.	EC006	Optoelectronics		
i.	IC001	Introduction to Biomedical Instrumentation	I.C. Engg.	Other than IC Engg.
ii.	IC002	Programmable Logic Controller		
iii.	IC003	Building Automation		
iv.	IC004	Microcontroller and its Applications		
v.	IC005	Process Control Technologies		
vi.	IC006	Industrial Instrumentation		
vii.	IC007	Modeling and Simulation		
i.	EE001	Energy Management and Audit	EE Engg.	Other than EE / CH Engg.
ii.	EE002	Electrical Power Utilization and Safety	EE Engg. Dept.	Other than EE Engg.
i.	CH001	Air Pollution Control Techniques	CH Engg.	Other than CH Engg.
i.	CE001/CE007*	Fundamentals of Computer Networks	CE / IT Engg.	Other than CE/ IT Engg.
ii.	CE002/CE008*	Internet and Web Technologies		
iii.	CE003/CE009*	Data Structures		
iv.	CE004/CE010*	Computer Engineering Concepts		
v.	CE005/CE011*	Embedded System Software		
vi.	CE006*	Operating Systems		

i.	ME001	Introduction to Robotics	ME Engg.	Other than ME Engg.
ii.	ME002	Mechatronics		
iii.	ME003	Introduction to Hydraulics and Pneumatics		
iv.	ME004	Cryogenics		
v.	ME005	Value Engineering		
vi.	ME006	Supply Chain Management		
vii.	ME007	Total Quality Management		
viii.	ME008	Production Management		
ix.	ME009	Elements of Micro Electro Mechanical Systems		
x.	ME010	Quality Management		
xi.	ME011	Renewable Energy Sources		Other than ME / EE/CH Engg.
xii	ME012	Basics of Quality Management		Other than ME Engg.
xiii	ME013	Introduction to Automobile Engineering		

* w.e.f from 2017-18 , for the students admitted in year 2015-16 and onward

No.	Course Code	List of Institute Elective	Offered by Branch	Offered to B.Tech. Progs.
i.	CL001	Disaster Risk Management	Civil Engg.	Other than Civil Engg.
ii.	CL002	Project Management		
iii.	CL003	Remote Sensing, GIS and GPS Technology		
iv.	CL004	Earthquake Engineering		
v.	CL005	Finite Element Methods for Engineers		
i.	HS001	Entrepreneurship Development	Humanities Department	All Department
ii.	HS003	Introduction to Accounting		
iii.	HS005	Technical Writing		
iv.	HS006	Elements of Marketing Management		
v.	HS014	Banking and Finance		
vi.	HS016	Applied Literature		

MINOR IN CONCERNED AREA

Institute also offers Minor Specialization in various areas of Engineering, Humanities and Management to the interested Students. This specialization is offered during Semester V to VII of the programme. In this students will have to study minimum 5 (Five) subjects and have to obtain minimum 15 credits.

A. Students who will take Minor in other than core courses like Interdisciplinary, Management, Humanities etc.

i. They will have to study at least 1 (One) Institute Elective and 1 (One) University Elective in the area in which minor is offered as a part of their regular curriculum

ii. Over and above regular curriculum, they will have to study 3 (three) additional courses as notified and offered for respective specialization.

iii. If the students opt further subject for Minor Specialization from the list other than core engineering courses or institute electives or university electives then such students will be required to study for the courses of 15 credits.

The list of Minor & Additional Courses:

1. Minor in Robotics and Automation (for All programmes)

Course Code	Course Name	Teaching Scheme (hours/week)				Examination Scheme			
		L	T	P	C	Duration Hours	Component Weightage		
						SEE	SEE	CE	LPW
ME643/ ME001	Robotics Engineering* / Introduction to Robotics**	VI	3	0	0	3	3	0.6	00.4
MEM251	Fundamentals of Mechatronics	V	3	0	0	3	3	0.6	00.4
MEM252	Mobile Robotics	V	3	1	0	4	3	0.6	00.4
MEM253	Industrial Automation	VII	4	0	0	4	3	0.6	00.4
MEM254	Robotics & Automation Laboratory	VII	0	2	0	1	0	0	1.00

2. Inter Disciplinary Minor in Computer Engineering (Except CSE)

Course Code	Course Name	Offered in Semester	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	SEE	CE	LPW
CEM251	Object Oriented Programming with C++	IV	2	0	2	3	3	0.4	0.40	.20
CEM252	Internet and Web Development	V	0	-	6	3	3	0	0	1.00
CEM253	Data Structures	VI	2	0-	2	3	3	0.4	0.40	.20
CEM254	Database Management Systems	VII	2	-	2	3	3	0.4	0.40	.20
CE007 OR CE006	(Institute Elective)** Fundamentals of Computer Networks OR Operation Systems	VI/VII	2	0	2	3	3	0.4	0.40	.20

**any one of these two Institute Electives to be chosen.

3. Minor in Marketing (for All programmes)

Course Code	Course Name	Offered in Semester	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	SEE	CE	LPW
IMM151	Marketing Management	3	-	-	3	3	0.4	0.60	0	
IMM152	Integrated Marketing Communication	3	-	-	3	3	0.4	0.60	0	
IMM153	Consumer Behaviour	3	-	-	3	3	0.4	0.60	0	
IMM154	Sales & Distribution Management	3	-	-	3	3	0.4	0.60	0	

* Any three

4. Minor in Finance (for All programmes)

Course Code	Course Name	Offered in Semester	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	SEE	CE	LPW
IMM251	Financial and Cost Accounting	3	-	-	3	3	0.4	0.60	0	
IMM252	Corporate Finance	3	-	-	3	3	0.4	0.60	0	
IMM253	Project Planning and Control	3	-	-	3	3	0.4	0.60	0	
IMM254	Direct and Indirect Taxes	3	-	-	3	3	0.4	0.60	0	

* Any three

** Offered by Institute of Management

5. Minor in Entrepreneurship (for All programmes)

Course Code	Course Name	Offered in Semester	Teaching Scheme (hours/week)				Examination Scheme			
			L	T	P	C	Duration Hours	Component Weightage		
							SEE	SEE	CE	LPW
ED401	Introduction to Entrepreneurship	IV	3	0	0	3	3	.60	0	0.4
ED501	Business Opportunity & Customer Validation	V	3	0	0	3	3	.60	0	0.4
ED601	Entrepreneurial Venture Creation	VI	3	0	0	3	3	.60	0	0.4
ED701	Business Models – Plan & Execution	VII	3	0	0	3	3	.60	0	0.4
	Elective Course*	VI/VII	3	0	0	3	3	.60	0	0.4

5. Academic Rules and Regulations

ACADEMIC RULES AND REGULATIONS

* ACADEMIC REGULATIONS FOR UNDER GRADUATE DEGREE LEVEL (B. TECH.) [FULL TIME AND[1] PART TIME] PROGRAMMES UNDER FACULTY OF TECHNOLOGY AND ENGINEERING

DEFINITIONS

PROGRAMME	—	B. Tech. (Programmes as per Annexure I)
COURSE	—	One of the constituent subjects of the Programme
SEMESTER	—	Duration for studying a course
TERM	—	A portion of an academic year, normally coinciding with a semester. The words "Term" and "Semester" are generally used synonymously.
REGISTRATION	—	Procedure for getting enrolment in a course.
LETTER GRADE	—	A letter associated with a particular performance level of the student. A qualitative meaning and a numerical index are attached to each grade. A+ to C are Passing grades, D — Conditional pass, FF – Fail, IF – Interim fail
CREDIT	—	A numerical figure associated with a course. On passing the course, the student earns this "credit"
[2] GRANTING A TERM	—	This expression is used to indicate whether the in-semester performance of the student is up to acceptable standards. GT – Term granted, NT – Term not granted
REGULAR APPROVAL	—	If a student is unable to attend the Institute or appear in an examination on account of unavoidable reasons like illness, accident or unforeseen circumstances, prior / prompt intimation and request to HOD is necessary for seeking approval for the absence. The approval of HOD so obtained will be referred as Regular Approval.

SHORT FORMS

Institute	—	Institute of Technology
Director	—	Director of Institute of Technology
Dean	—	Dean of the Faculty of Technology and Engineering
HOD	—	Head of concerned Department
Appeal Committee	—	Appeal Committee consisting of Director, Dean and Three Professors nominated by Director

IR	—	Initial Registration
RPR	—	Repeat Registration
RL	—	Repeat Registration for LPW
RS	—	Repeat Registration for Studying all components of course
NT	—	Term Not Granted
RER	—	Re - examination Registration
REC	—	Re-examination Registration for CE component of a course
RES	—	Re-Examination Registration for SEE component of a course
CE	—	Continuous Evaluation
LPW	—	Laboratory/Project work
SEE	—	Semester end examination
SPE	—	Supplementary examination
R.	—	R. Eng. (UG)

R.ENG(UG). 1. PROGRAMMES - Annexure 1

a) B. Tech. (Full-Time)

The Under Graduate Degree Programmes in Technology and Engineering, leading to the degree of B. Tech., are offered by the Institute of Technology. All Programmes are full time, of four years duration and are approved by Nirma University. The Programmes offered are listed in Annexure 1.

R.ENG. (UG) 2. ELIGIBILITY FOR ADMISSION – Annexure 2

The eligibility criteria for admission to the Programmes are given in Annexure 2.

R.ENG. (UG) 3. CATEGORIES OF COURSES

The following categories of courses are offered in the programmes.

CREDIT COURSES

These are compulsory courses. They are included in the schedules of various semesters. Credits earned for these courses will be considered for evaluating the academic performance levels of the student.

SUPPLEMENTARY COURSES

These are compulsory courses. They are not included in the schedules of the semesters, but are shown as additional courses, wherever applicable. No credits are assigned to these.

The student shall have to pass a supplementary course(s) in maximum of four consecutively available attempts. Failure to satisfy this criterion at any stage will disqualify the student from registering in any

higher semester. Such student can appeal to the Appeal Committee. The Committee may grant an extension up to one additional attempt in genuine cases.

AUDIT COURSES

These are optional courses. No credits are assigned to them. They will be separately notified in each semester.

NOTE**:** Hereafter, the Credit Courses will be referred to simply as "courses". Supplementary and Audit courses will be specifically mentioned as such.

R.ENG. (UG) 4. COMPONENTS OF A COURSE

The academic schedule of the courses may consist of one or more of the following components with their respective scope as described.

- **LECTURES (LECT) -** Teaching learning processes conducted in real and virtual classrooms with various multimedia aids.
- **TERM ASSIGNMENTS (TA) -** Supplementary to classroom teaching. It consists of one or more of the following teaching strategies. Each strategy will form a UNIT.

  Tutorial exercises, quizzes, tests, objective questions, term paper
- **LABORATORY WORK / PROJECT WORK (LPW) -** This component consists of one or more of the following practical exercises/ projects.

  Each set of practical exercises / project will form a UNIT.

  Laboratory experiments and their reports, fabrication / workshop jobs, study of machine/equipment, tests on materials/components/prototypes etc.

  Seminar, software development, industrial / professional training, analysis, design, research problems etc.

R.ENG. (UG) 5. EXAMINATIONS

For assessment of the course, each component corresponds to certain examination/s. These examinations are as follows.

LECTURES	—	Semester End Examination (SEE)
[3]CONTINUOUS EVALUATION	—	CE examination CE may include written examination/s and Term Assignments (TA) Examination
LABORATORY/PROJECT WORK	—	LPW examination
***** Practical Work	—	PW examination

R.ENG. (UG) 6. COURSE COORDINATOR, ADVISOR

The Dean will appoint faculty members for the following designations. The main functions of each designation are also mentioned.

COURSE COORDINATOR (to be appointed for each course) **–** to coordinate all matters related to the conduct and assessment of a course.

FACULTY ADVISOR (to be appointed for each semester) – to look after all matters, at the department level, regarding Registrations and Re-Registrations of courses and also to provide guidance and counseling to students regarding these issues.

R.ENG. (UG)7. TEACHING SCHEME — Annexure 3

The teaching scheme for the course as a whole will be referred simply as Teaching Scheme.

The teaching scheme of the Units of TA and LPW will be referred as Supplementary Teaching Scheme.

The courses offered in each programme (semester- wise) and their teaching schemes are given in the Semester schedules (Annexure 3). The schemes show the various courses, distribution of teaching hours, course component/s, examinations, component weights and credits allotted to each course.

In certain Programmes, the teaching scheme will include, if necessary, summer vacation training in industry / professional / research organizations.

The Supplementary Teaching Schemes of various Units of TA and LPW together with their *inter se* weights, (within the overall weights of TA and LPW), shall be formulated by the course coordinator in consultation with HOD. These schemes will be approved by the Dean of the Faculty of Technology and Engineering before being notified to the students in the beginning of each semester.

R.ENG. (UG) 8. SEMESTER AND TERM

Normally courses will be offered semester-wise as given in the teaching scheme. However the Institute may offer certain course/s of a semester in both terms of an academic year in order to help students to pursue their study more expeditiously.

SUMMER SEMESTER refers to the academic session scheduled in the summer vacation for supplementary/remedial teaching and examinations. Normally, selected courses of only the first two semesters will be offered in the Summer Semester.

For regulations related to Summer Semester Courses and Examinations, see R-19.

R.ENG. (UG) 9. REGISTRATION IN COURSES

9.1 There will be five categories of Registrations. All five categories will be collectively referred to simply as Registration. Individual categories will be referred to by their symbols.

9.2 All Registrations, wherever applicable, will be subject to availability of courses.

9.3 Registration will be done course-wise.

9.4 CATEGORIES OF REGISTRATION

9.4.1 The Five categories of Registration are:

IR – Initial Registration

RPR – Repeat registration with two sub categories RL (Repeat registration for studying LPW component of a course) and RS (Repeat registration for studying all components of a course)

RER – Re-examination registration with two sub categories REC (Re-examination registration of CE component of a course) and RES (Re-examination registration of SEE component of a course.)

9.4.2 **Initial Registration (IR)** - In order to study a course for the first time, the student will register under the IR category. This will imply regular attendance for study of all components of that course and appearing at all examinations thereof.

IR registrations for courses of a semester are to be done for ALL courses of that

Semester as shown in the Teaching Scheme; IR registration will not be permitted for lesser number of courses. The student who so registers (IR) for all courses of a semester will be considered as having been registered in that semester.

New entrants admitted to the programme on the basis of HSCE or equivalent will register (IR) for the first semester. Diploma students admitted to the Degree programme will register (IR) for the semester as notified by Nirma University.

9.4.3 **Repeat Registration (RS)**

The student whose Term is not granted for any registered course (R.12) will have to repeat the study of that course. He will have to seek fresh registration for this purpose. The category of such registration will be as follows:

Term not granted Category	Registration Category
NT	RS

RS - This category will imply regular attendance to study all components (i.e. LECT, CE, LPW as applicable) and appearing at all examinations thereof.

9.4.4 **RE-Registration (RER) -** This registration is necessary for appearing again in a particular examination of a course. It will not involve regular attendance for studying that course.

9.4.5 **RPR Registration -** This term will be used where necessary to include registrations of both categories RL and RS.

9.5 APPROVAL OF REGISTRATION

Every student must apply in the prescribed form for registrations, as applicable. The decision on the student's request will be based on the availability of courses and applicable Regulations. The Director will issue appropriate orders for processing the application, including scrutiny, verification and final orders.

9.6 SIMULTANEOUS REGISTRATION IN DIFFERENT CATEGORIES

9.6.1 Semesters will be registered in chronological order.

9.6.2 A student will not be permitted to register (IR) in the next higher semester if the total number of courses with RER and/or RPR as applicable in his case exceeds Three.

9.6.3 The student who becomes eligible for IR registration in a higher semester must first register for all RER and RPR registrations as applicable in his case.

9.6.4 The student who is not eligible to register in a higher semester in any term must register in that term, for all RER and RPR registrations applicable in his case.

R.ENG. (UG) 10. GRADES

PERFORMANCE LEVELS

The Performance level of the student in any examination will be adjudged in terms of the letter grades given in Table 1.

Table-1

Grade	Qualitative Meaning	Equivalent Grade Point
(G)	(GQ)	(g)
A+	Excellent	10
A	Creditable	9
B+	Very Good	8
B	Good	7
C+	Satisfactory	6
C	Average	5
D	Conditional Pass	4
FF	Fail	0
IF	Interim Fail	0

R.ENG. (UG) 11. SCOPE OF EXAMINATIONS AND ASSESSMENT

In order to pass a course, the students will have to pass all examinations of that course. The scope of the examinations and the method of assessment will be as follows.

11.1 In all mark-based assessment, the overall percentage marks, if fractional, will be rounded off to the next higher integer value.

11.2 CE EXAMINATION (IR and REC/RS registration)

All exercises in CE will be continuously assessed during the semester and given marks. Oral examination may be included in the assessment at all possible stages. The total marks of all Units of CE will be aggregated based on their *inter se* weights to give the overall percentage of marks in the CE examination.

If the student fails in CE examination, the student will not be permitted to appear in SEE of that course and the student will have to seek fresh registration as REC in subsequent semester, if the student is otherwise eligible.

11.3 LPW EXAMINATION (IR and RL/RS)

All assignments in Laboratory work and Project Work will be continuously / periodically assessed (as applicable) during the semester. In addition there will be an overall assessment at the end of the semester. Oral examination will be included in the assessment at all possible stages. Each assessment will be given marks. The total marks of all Units of LPW will be aggregated based on their inter se weights to give the overall percentage of marks in the LPW examination. The course coordinator will notify the procedure for assessment, review, viva voce etc to the students in advance

If the student fails in LPW examination, the student will not be permitted to appear in SEE of that course and the student will have to seek fresh registration as RL in subsequent semester, if the student fulfills the condition of granting the term (R-12)"

The course coordinator will notify the procedure for assessment, review, viva voce etc to the students in advance.

11.5 SEMESTER END EXAMINATION (SEE) (IR and RPR)

The expression "Semester End Examination" refers to the written examination of a course taken at the end of a semester. This will cover the full syllabus.

The assessment will be mark based as per normal practice in written examinations.

11.6 SUPPLEMENTARY EXAMINATION (SPE)

(RER registration, grade IF in SEE)

The Institute may decide to hold a Supplementary Examination after SEE for students who have obtained grade IF in SEE. Such students will have to seek RER registration.

11.7 SCHEDULES OF SEE AND SPE

SEEs of all courses of the programme, as per the teaching scheme, will be held at the end of both terms.

The term end Supplementary Examinations (SPE), if held, will be for only those courses that are offered in the semesters of that term**.**

11.8 Absence in any examination with or without Regular Approval will be assigned zero mark.

R.ENG. (UG) 12. GRANTING OF TERM

12.1 The Term will be granted course-wise

12.2 The granting of Term for all the students (IR, RPR) will depend on the compliance of maintaining minimum 85 % attendance in all components of the course (as applicable) Regular approval for remaining absent up to 15 % is necessary

Note: In the case of long duration training or project work, where final examination is not possible before the Term ends, a certificate by the course coordinator that the student's progress is satisfactory will be acceptable.

12.3 The student who has been given category NT may appeal to the Appeal Committee giving full reasons for his default. The decision of the Committee in all such cases will be final.

12.4 The student who is given NT category will not be permitted to appear in SEE of the concerned course. He will also be given grade FF in that course

R.ENG. (UG) 13. GRADES IN EXAMINATIONS

13.1 CE and LPW EXAMINATIONS

Grades for the [3]CE and LPW examinations will be given on the basis of the percentage marks obtained by the student in the respective examinations.

Table 2 (a) shall be referred for converting percentage marks into corresponding Grades (G) for all examinations except CE and Table 2 (b) for CE

Table 2 (a)

All examinations except CE	
% marks	Grade(G)
90 and above	A+
80-89	A
70-79	B+
60-69	B
50-59	C+
40-49	C
Less than 40	**IF**

Table 2 (b)

for CE	
% marks	Grade(G)
90 and above	A+
80-89	A
70-79	B+
60-69	B
50-59	C+
40-49	C
35-39	D
Less than 35	**IF**

13.2 GRADE IN SEE

In the normal course, a student (IR, RPR) and category GT will appear for SEE after his CE and LPW examination, in the same semester. Grade for the performance in SEE will be given on the basis of the percentage marks obtained by the student. Table 2(a) shall be referred to for converting percentage marks into corresponding grades (G) except that for categories - (i) and (ii) given below, grade IF will be given:

Performance	**Grade**
(i) Fail	IF
(ii) Absence	IF

Notwithstanding anything contained in terms of giving 'IF' grade as shown in (ii) in the table above, the Director of Institute will scrutinize the genuineness about remaining absence in Semester End Examination through Appeal Committee and if the Director, after said scrutiny, decides to show 'Ab' instead 'IF' in (ii) of above table then in the grade sheet, instead of 'IF', 'Ab(S)' shall be mentioned in such cases only.

13.3 GRADE IN SPE

The student of category (i) or (ii) of R. 13.2 (with grade IF) will be eligible to appear in the SPE (with RER registration) of that course at the end of that term. The criteria for giving grade in SPE will be the same as given in R.13.2

13.4 The student who obtains grade IF in SPE will be allowed to appear in Three consecutively available subsequent SEE/s of the concerned course. The criteria for giving grades in these three attempts will be the same as given in R.13.2. However, grade IF in the final attempt will be converted into grade FF.

13.5 COURSE GRADE

Course grade will be given only when the student passes all component examinations.

Marks of SEE/ SPE, CE and LPW (as applicable) examinations shall first be aggregated on the basis of the component / *inter se* weights given in the Teaching Scheme. After the aggregate marks of the entire group are so calculated, the performance of each student in the course as a whole will be assigned a grade based on his aggregate percentage viewed in relation to the overall performance of the group.

In giving relative grades, the number and designation of various grades (G) shall be kept the same as shown in Table 2 (a). [13]The course coordinator will decide the cut off percentages of relative grading subject to the guidelines prescribed by the Academic Council.

The Transcript will show only the Course Grade and not the Component Grades.

13.6 The provisions of R. 13.4 are subject to the maximum permissible duration to pass courses of first two semesters and the entire Programme given in R.17.

R.ENG. (UG) 14. INTERPRETATION OF GRADES

(a) Grade A+ should be given with great care and discretion. Normally it should be reserved for a very distinguished performance, with respect to both marks and quality of output.

(b) Grade C is the minimum for passing. A student getting grade D in CE can improve his performance (at his option) by repeating CE in subsequent semester. Better of the grades obtained in the two examinations will be considered.

(c) Grade FF

i) If this grade is given because of NT (R.12), the student will have to seek RS registration for repeat study of the course.

ii) If the grade FF is given due to failure in the final admissible attempt in SEE, the student will have to seek RS registration for repeat study.

(d) Grade IF - This is an interim fail grade given in CE, LPW & SEE/SPE as under :

Performance	**Grade**
Fail in CE	IF(C)
Fail in LPW	IF (L)
Fail in SEE/SPE	IF (S)
Fail in Overall Course	IF(O)

Note: If a student getting IF(O) in a course, then he/she can improve his/her performance by repeating CE (all components of CE) of the course in the subsequent semester depending upon his/her choice. In such case, he/she will also reappear in SEE.

R.ENG. (UG) 15. PASSING STANDARDS

15.1 PASSING A COMPONENT: The standards of passing a component / course / Programme are given below. (Min C means grade C or a better grade)

COMPONENT	—	Min C in each component examinations i.e., CE, LPW & SEE /SPE
CONTINUOUS EVALUATION	—	Min C (in case of grade D, refer regulation for Gracing)
LPW	—	Min C
SEE/SPE	—	Min C
COURSE	—	Min C

15.2 GRACING — A student not satisfying condition given in R 15.1 for passing a given course will be deemed to have been "Graced for passing" the course if ³ the student fulfils the following two conditions:

(i) Grade D in CE

(ii) Min C in LPW and SEE/SPE (as applicable) and Min C in a course.

A student will be allowed a total of six Gracing in the entire programme of

U.G programmes respectively.

No special mention about Gracing will be made in the Transcript.

15.3 PROGRAMME — Total credits of all credit courses of the Programme with CPI min 5.0

15.4 FAILURE - Student not satisfying the criteria of Passing / Gracing will be considered as having Failed in the Examination/ Component / Course / Programme.

15.5 The student who has once passed an examination will not be allowed to appear at it again.

15.6 Grades/marks obtained by the student in examinations passed by him will be carried forward as necessary.

R.ENG. (UG) 16. PERFORMANCE LEVELS

16.1 INDICES

The performance level of the student in credit courses at different stages of his study is given by the following indices. All index values will be rounded off to the second place of decimal.

PIC — Performance index for the course

PPI — Progressive Performance Index

SPI — Semester Performance index

CPI — Cumulative Performance index

PIC = Equivalent grade point (g) corresponding to the course grade (R. 10 and 13.5)

PPI = (Up to any stage under consideration)

= (i1 c1 + i2 c2 + i3 c3 .....) / (sum of credits of all courses registered up to that stage) where:

i1, i2, i3.... are PIC values of CREDIT COURSES passed and

c1, c2, c3..... are the credit values of the respective courses.

SPI — This index is similar to PPI except that the stage to be considered is the end of a semester.

CPI — This index refers to the entire programme. It is calculated when the student passes the programme. The method of calculation is the same as for PPI or SPI but the summation is for the courses of all semesters of the programme.

16.2 CLASS AND PERRCENTAGE (%) MARKS

In case an equivalence between CPI values and Class / % marks is desired, the same can be obtained as given below:

% marks = (CPI – 0.5)* 10

CLASS

CPI Value	Equivalent Class
5.00 to 6.49	Second
6.50 to 7.49	First
7.5 and above	First – with distinction

R.ENG. (UG) 17. CANCELLATION OF ADMISSION

The admission of following categories of students is liable to be cancelled:

(i) Failure to earn credits for all courses of Semester-I within four semesters (except summer semesters) of admission to the programme,

(ii) Failure to earn credits for all courses of Semester-II within five semesters (except summer semesters) of admission to the programme,

(iii) Failure to earn requisite credits and CPI min. 5.00 to pass the programme within a period (after admission to the programme), equal to the stipulated duration of the programme plus, [15] two additional semesters.

The student, whose admission is so cancelled, can appeal to the Appeal Committee. The Committee may grant an extension upto the one additional semester for cases falling under (i) and (ii) and upto two additional semesters for cases falling under (iii) for deserving cases, provided the student gives a viable assurance to make up the shortfall within that period.

Notwithstanding anything contained above, the President may consider the cases of such students falling under category (i), (ii) & (iii), if the student has cleared all the courses and have earned the requisite number of credits except one course, on an appeal filed. The President will consider such appeal on the recommendation of the appeal committee prescribed under the regulations for the purpose and after considering the genuineness of the case may give one additional attempt to the student concerned to clear the remaining course.

R.ENG. (UG) 18. EXAMINERS

All continuous assessments will be carried out by the faculty concerned. All other assessments / examinations will be carried out by a panel of at least two examiners. The extent of associating external experts with the examination, selection and appointment of all examiners will be decided by the Dean in consultation with a committee appointed for this purpose.

R.ENG. (UG) 19. SUMMER SEMESTER COURSES AND EXAMINATIONS

R

19.1 The Institute may offer the following two types of courses in the Summer Semester. No separate registration is necessary to attend a course in summer semester.

(i) For students with RER registration — Courses in which only the LECT component will be taught.

(ii) For students with RPR registration — Courses in which all applicable components will be taught.

A course will be offered if a minimum number of Eight students apply for enrolment. The Director is empowered to relax this condition as he deems fit.

19.2 For type (i) courses, the Summer Semester end examination will be considered as SEE or SPE as applicable to each student. If the student gets passing grade in the examination, he will be given the appropriate grade, otherwise the status of his registration before Summer Semester will remain unchanged.

19.3 For type (ii) courses, all Regulations applicable to IR and RPR registrations will apply. Examinations i.e. CE, LPW and SEE as applicable will be taken. No Block, Supplementary or additional examination will be taken.

If the student passes in the course, he will be given the appropriate grade, otherwise the status of his registration before Summer Semester will remain unchanged.

19.4 The maximum number of enrolments allowed to a student will be as follows:

Only RER — 3

Only RPR — 2

RPR + RER — 1 + 1

R.ENG. (UG) 20. SUPPLEMENTARY COURSES

This category includes courses in General Development, Language and Communication Skills, Entrepreneurship etc. It also includes NCC & NSS courses.

Except in the case of NCC or NSS Training, the structure of these courses will be decided by Dean, Faculty of Technology and Engineering. The Course Structure of NCC/NSS will be prepared as and when they are introduced.

The teaching schemes for these courses will be shown separately in Annexure 3. Components of the courses will in general be the same as for credit courses, except in courses like NCC, NSC etc.

Except in the case of NCC or NSS training, the regulations for registration, ([18]) granting of terms, examinations, assessment, grading and passing will be the same as those for the credit courses. However no Gracing will be allowed.

The students will have to pass these course/s in a total of Four consecutively available attempts. Cases of students who do not still pass these course/s will be referred to the Appeal Committee. Its decision in such cases will be final.

The Transcript will contain an appropriate reference to these courses. Since no credits are allotted to them, they will not affect Performance Indices.

R.ENG. (UG) 21. AUDIT COURSES

Courses in this category are technology oriented but not necessarily focused on the discipline under study. Mostly they may be limited to class room teaching and related assignments but if necessary, they may include laboratory work also.

These courses are optional and there will be no examination for them.

In each semester, the Institute will notify the audit courses likely to be offered along with their teaching schemes. Students who desire to study any of the notified course/s can decide their choice in consultation with the Advisor. The Institute will decide the courses to be actually offered after ascertaining the choice of the students. Normally a course will be offered if at least 8 students opt for its registration.

Registration will be done course wise. A student will be allowed to register for only one Audit course per semester. The Advisor will recommend the registration to HOD, only if in his opinion, the academic record of the student is satisfactory.

HOD will forward the proposal with his remarks to the Director for final orders.

The student will be deemed to have completed the course satisfactorily if he shows good conduct and behaviour, maintains minimum 85% attendance and submits all assignments diligently and regularly.

On satisfactory completion of the course, a suitable mention will be made in the Transcript of the student.

The structure of these courses will be decided by the Dean of the Faculty

R.ENG.(UG) 22. PRE-REQUISITE COURSES AS CREDIT COURSES

22.1 The students who are admitted in the higher semesters as per provisions of Annexure-2 under Regulation R.ENG.(UG)-2 shall be required to complete the pre-requisite courses as defined under the said regulation.

22.2 The syllabi and teaching and examination schemes for pre-requisite courses will be approved by the Director General on the recommendation of the Dean concerned.

The Regulations for examinations, assessment, grading and passing etc., will be the same as those for credit courses.

22.3 The student shall have to pass a pre-requisite course in a maximum of four consecutively available attempts. Failure to satisfy this criterion at any stage will disqualify the student from registering in any higher semester.

22.4 On passing all scheduled pre-requisite courses, the student will be deemed to have earned all credits allotted to the first/ first two semesters, as the case may be. The credits earned for pre-requisite courses will not be counted for calculating any performance index.

Annexure – 1

[Refer: R.ENG. (UG) .1]

LIST OF PROGRAMMES

a) B. Tech. (Full-Time)

1. B. Tech. in Civil Engineering
2. B. Tech. in Chemical Engineering
3. B. Tech. in Mechanical Engineering
4. B. Tech. in Electrical Engineering
5. B. Tech. in Instrumentation & Control Engineering
6. B. Tech. in Electronics & Communication Engineering
7. B. Tech. in Computer Science & Engineering
8. B.Tech CSE + MBA Integrated

Annexure – 2

[Refer: R.ENG. (UG) .2]

Eligibility Criteria for Candidates seeking Admission in the First Year B. Tech. Programme under Nirma University

(A) The students seeking admission in the 1st year of Degree Programme leading to Bachelor of Technology (B.Tech) shall have passed the Qualifying Examination with minimum eligibility criteria of percentage of marks in the subjects as prescribed by the Government of Gujarat from time to time.

(B.1) The student holding diploma in engineering (after passing Std. 10th or 12th), from the Gujarat State Technical Examination Board or Nirma University or any Recognized Examinations considered equivalent by the Nirma University, will be eligible for admission in Semester-III of respective B. Tech. Programme,

(B.2) Such students will be required to pass following pre-requisite courses, to be offered during 2nd year of B. Tech. Programme as per R.ENG.(UG)-22:

a) Foundation Mathematics – I

b) Foundation Mathematics – II

c) Computer Programming (for CE, IT, IC & EC)

d) Programming Languages (for ME, CH, CL & EE)

DISCLAIMER

This regulations are the content of the original notifications issued in pursuance to the Board of Governors meetings and hence, in any dispute or doubt under this document will be verified with the original notification and the same would be final.

6.
Forms
&
Undertakings / Declaration
(For reference purpose only)

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

Acknowledgement

I have received following undertaking at the time of admission (A.Y. 2020-21):

1. Anti ragging
2. Conduct and Discipline rules
3. Anti drug
4. Granting of Term
5. Cancellation of admission
6. Eligibility Certificate / Migration Certificate

Further, I assure you that I will go through all contents of the Information Booklet (Volume – I & II) thoroughly related to the programme to which I have been granted admission and thoroughly understand them. I will not show any excuse of my ignorance of the same especially rule R. Eng (UG) 17 – cancellation of admission.

I further give assurance that I will abide by the rules and regulations and any further modification thereof, if any, **during entire period of my study at Nirma University.**

_____ _____

Name of the student Signature of the Student

_____ _____

Name of the Parent / Guardian Signature of the Parent / Guardian

Date:- ____/____/_____ Place:- Ahmedabad

Undertaking – I
(A.Y. 2021-22)

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

UNDERTAKING BY STUDENT (Anti – Ragging)

I, _____

(Roll No. _____) hereby declare that I had submitted an Affidavit (as per UGC regulation) stating that I have read the relevant instructions against ragging as punishment and that if I have been found guilty of ragging, I am aware that action will be taken accordingly.

I give an undertaking to the Institute that I will not indulge in any behaviour or act that may be constituted as ragging. I will not participate in or abet or propagate through any act of commission or omission that may be constituted as ragging **during entire period of my study at Nirma University.**

Signature of Student: _____

UNDERTAKING BY PARENT

I, _____ (Parent / Guardian) of _____) hereby declare that I had submitted an Affidavit (as per UGC regulation) stating that I have read the relevant instructions against ragging as punishment and that if my ward have been found guilty of ragging, I am aware that action will be taken accordingly against him.

I give an undertaking to the Institute that my ward will not indulge in any behaviour or act that may be constituted as ragging. He / She will not participate in or abet or propagate through any act of commission or omission that may be constituted as ragging **during entire period of his / her study at Nirma University.**

Relation with Student: _____

Signature of Parent/Guardian: _____

Date:- ____/____/_____ Place: Ahmedabad

Undertaking – II
(A.Y. 2021-22)

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

UNDERTAKING (Conduct and Discipline rules for the Students)

1. Every student must carry his / her identity card which should be produced when demanded.
2. It is mandatory for the students to attend the classes, prayer sessions etc. on all working days from the start to the end of the term/semester. Absence due to illness or unavoidable circumstances shall be considered only if application is supported with medical certificates and/or leave application from the parents is submitted to the Director.
3. Students are expected to be polite individually or in groups and show respect to the Faculty (teachers) as well as to the staff of the Institute. Instructions in connection with academic or other matters as may be given by the teachers from time to time must be followed scrupulously by the students. Students must not participate in activities that may cause harm to the academic environment or which harm the teacher-student relation.
4. The action of any individual, group or wing which amounts to interference in the regular administration of the college is prohibited. Disciplinary action will be taken against such students.
5. Causing disfiguration or damage to the property of the Institute or belongings of staff members or students is forbidden. In case of any such damage, the same will be recovered from the students, the parents or the guardians.
6. No student shall indulge in any activity in the college campus that might be illegal or may lead to disorderliness.
7. Neither student should be in possession of any intoxicant or intoxicating materials nor consume such things. If anyone is found to have violated this instruction, the admission of such student will be cancelled.
8. Use of all types and makes of mobile phones; whether ordinary, camera phone or smart phone in the academic areas during academic activities, is prohibited.

   If a student is caught using mobile phone in any of the academic areas during any academic activities, his / her instrument will be immediately confiscated alongwith I-card and a penalty of Rs. 5,000/- (Rs. Five thousand only) will be imposed on that student.

   The instrument will be returned only after the student produces receipt of payment of penalty amount in the Account Section within seven working days, failing to which, the appropriate disciplinary action will be taken against the student.

   Whenever any student is found to be guilty or violating the instructions specified above or other specific instructions issued by the center or the Institute, he / she will be liable to disciplinary actions such as fine, suspension or rustication as may be imposed by the Director. The disciplinary action taken by the Director in this regard shall be final and binding.

I have read above conduct and discipline rules and I shall abide by these rules.

Name of the Student _____

Roll No. _____ Signature of Student _____

Date: _____ Signature of Parent/Guardian _____

Undertaking – III
(A.Y. 2021-22)

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

UNDERTAKING
[to refrain from consumption of Drug and Alcohol]

I; _____, bearing Roll No. _____ admitted in

_____ of Institute of Technology, Nirma University, do hereby declare and undertake that I will refrain myself from consumption of Drug and Alcohol.

I have read the relevant instruction against the use of drugs & alcohol. I know that the use/possession of narcotics drugs and Alcohol is a punishable offence under the law of the Government of Gujarat and if I am found guilty of using such thing, then it will amount to a criminal offence and I am liable for the appropriate penalty as per laws. I hereby give an undertaking to the Institute that I will refrain myself from consumption of Drug and Alcohol.

Date: _____ _____

Place: _____ Signature of student

Name of Parent/Guardian: _____

I undertake that I will take utmost care to see that my ward does not get involved in any such incident.

Signature of Parent/Guardian: _____

Address of Parent/Guardian with contact nos.: _____

_____

_____

_____

Undertaking – IV
(A.Y. 2021-22)

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

UNDERTAKING
(Granting of Term)

I; _____, bearing Roll No. _____ admitted in

_____ at Institute of Technology, Nirma University, Ahmedabad give an undertaking that I have read and understood all the Rules & Regulation of the Examination at the Institute of Technology particularly the R.ENG (UG/PG) 12 and R.ENG (UG/PG) 17 and I shall observe, follow & abide all these Rules. if not, Institute of Technology, Nirma University can take necessary action as per the said provisions.

R.ENG. (UG/PG) 12. GRANTING OF TERM

(i) The Term will be granted course-wise

(ii) The granting of Term for all the students (IR, RPR) will depend on the compliance of maintaining minimum 85 % attendance in all components of the course (as applicable) Regular approval for remaining absent up to 15 % is necessary

(iii) The student who has been given category NT may appeal to the Appeal Committee giving full reasons for his default. The decision of the Committee in all such cases will be final

(iv) The student who is given NT category will not be permitted to appear in SEE of the concerned course. He will also be given grade FF in that course.

Note: In the case of long duration training or project work, where final examination is not possible before the Term ends, a certificate by the course coordinator that the student's progress is satisfactory will be acceptable.

_____ _____

Name of the student | Signature of the Student

_____ _____

Name of the Parent / Guardian | Signature of the Parent / Guardian

Undertaking – V (UG)
(A.Y. 2021-22)

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

UNDERTAKING
(Cancellation of Admission)

R.ENG. (UG) 17. CANCELLATION OF ADMISSION

The admission of following categories of students is liable to be cancelled:

(i) Failure to earn credits for all courses of Semester-I within four semesters (except summer semesters) of admission to the programme,

(ii) Failure to earn credits for all courses of Semester-II within five semesters (except summer semesters) of admission to the programme,

(iii) Failure to earn requisite credits and CPI min. 5.00 to pass the programme within a period (after admission to the programme), equal to the stipulated duration of the programme plus, two additional semesters.

The student, whose admission is so cancelled, can appeal to the Appeal Committee. The Committee may grant an extension upto the one additional semester for cases falling under (i) and (ii) and upto two additional semesters for cases falling under (iii) for deserving cases, provided the student gives a viable assurance to make up the shortfall within that period.

Notwithstanding anything contained above, the President may consider the cases of such students failing under category (i), (ii) & (iii), if the student has cleared all the courses and have earned the requisite number of credits except one, on an appeal filed. The President will consider such appeal on the recommendation of the appeal committee prescribed under the regulation for the purpose and after considering the genuineness of the case may give one additional attempt to the student concerned to clear the remaining course.

_____ _____

Name of the student | Signature of the Student

_____ _____

Name of the Parent / Guardian | Signature of the Parent / Guardian

Undertaking – VI
(A.Y. 2021-22)

NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY
NAAC ACCREDITED 'A' GRADE

UNDERTAKING
(Eligibility Certificate/Migration Certificate)

***A.** I,_____, Roll No. _____

admitted in _____ at Institute of Technology, Nirma University,

Ahmedabad hereby, declare that my final result for the qualifying examination, namely _____ of _____ Board / University is not declared as yet and therefore, I am not in a position to submit the same at the time of admission. This has also resulted in not producing the Provisional Eligibility Certificate.

***B.** I,_____, Roll No. _____

admitted in _____ at Institute of Technology, Nirma University,

Ahmedabad hereby, declare that the Migration Certificate of _____ Board / University is not issued by them as yet and therefore, I am not in a position to submit the same at the time of admission. This has resulted also in not producing the Final Eligibility Certificate.

(A) Due to non-compliance of above circumstance(s), I am aware that I am admitted in the said Programme provisionally with a condition that I will produce the Mark sheet or any evidence of passing the qualifying exam / Migration certificate **within 30 days from the date of commencement of First Semester, in failure of the same, my provisional admission may also liable to be cancelled from the Institute.**

(* Strike out, if whichever is not applicable)

_____ _____
Name of the student Signature of the Student

_____ _____
Name of the Parent / Guardian Signature of the Parent / Guardian

NIRMA UNIVERSITY - INFORMATION TECHNOLOGY POLICY

Preamble:

The Nirma University Information Technology (IT) Policy sets forth the central policies that govern the responsible usage of all users of the University's information technology resources. This comprises the IT facilities allocated centrally or by individual departments. Every member of the University is expected to be familiar with and adhere to this policy. Users of the campus network and computer resources ("users") are responsible to properly use and protect information resources and to respect the rights of others.

Applicability:

The IT Policy applies to all University faculty, staff and students and all others using the IT resources, whether personally or of University owned, which access, transmit or store various types of related information.

1. Objectives

Each user of the University Information Resources must ensure that it is used for promoting the mission of the University towards teaching, learning, research, and administration. In particular, the major objectives of this document are:

1.1 To ensure the integrity, reliability, availability, and superior performance of the University IT Systems

1.2 To ensure that the IT resources protects the official e-identity (allocated by the University) of an individual

1.3 To ensure that all the users of the University are responsible for adhering to the procedures governing the implementation of this Policy document and any other matter incidental to those rules

2. Areas:

2.1 IT usage and Prohibitions

2.1.1 The users of the University shall make effective usage of campus collaboration systems, internet, wireless resources, official websites (including university website, conference website, journal portals, online admission systems, and course website), and Management Information Systems (MIS) and ERP solutions, Learning Management System, Remote Login based facilities of the University and e-Library resources.

2.1.1 The University shall stress upon the users to comply with University policies and legal obligations (including licenses and contracts).

2.1.2 The University shall strive to arrange for awareness programmes to acquaint the users with the effective usage of IT resources.

2.1.3 Prohibited Use - The users shall not send, view or download fraudulent, harassing, obscene, threatening, or other messages or material that are a violation of applicable law or University

policy. In particular, contributing to the creation of a hostile academic or work environment is prohibited.

2.1.4 Copyrights and Licenses - Users must not violate copyright law and must respect licenses to copyrighted materials. For the avoidance of doubt, unlawful file-sharing using the University's information resources is a violation of this policy.

2.1.5 Social Media - Users must abide by the rules of the University towards the usage of social networking sites, mailing lists, news rooms, chat rooms and blogs.

2.1.6 Commercial Use - The University IT resources shall not be used for any commercial and promotional purposes, through advertisements, solicitations or any other message passing medium, except as permitted under University rules.

2.2 Security and Integrity

2.2.1 Personal Use - The University IT resources should not be used for activities violating the basic functionality and mission of the University, except in a purely incidental manner.

2.2.2 The users must refrain from making any unauthorised access of information in order to promote secure access of Network and Computers.

2.2.3 The competent system administrator may access the information resources for a legitimate purpose.

2.2.4 Firewall - Additional procedures to maintain a secured flow of internet and intranet based traffic in the campus shall be managed through the use of Unified Threat management (firewall).

2.2.5 Anti-virus and security updates - The regular updation of the anti-virus policy and security updates should be done for the protection of computing resources.

2.3 IT Asset Management

2.3.1 Asset Management: The University shall lay down business processes for the management of hardware and software assets that facilitates the usage of IT resources in the University. This shall include procedures for managing the purchase, deployment, maintenance, utilization, energy audit, and disposal of software and hardware applications within the University.

2.3.2 Copying and Distribution: The University shall ensure that there is no violation in the copying and distribution of proprietary and licensed softwares.

2.3.3 Risks: The University shall emphasize on managing the risks involved for the usage of IT resources. This shall include standard procedures for identification, minimization and monitoring of risk impact by preventive and corrective measures. This should also include procedures for timely data backup, replication and restoring policies, power backups, audit policies, alternate internet connectivity for a fail-safe internet access.

2.3.4 Open Source Asset: The University shall endeavour towards the promotion and effective usage of open source softwares.

3. Operating Aspects:

3.1 University Governance - The University shall endeavour to ensure fair implementation of this policy

so as to meet with the objectives of its formation. The responsibility of the management of operational aspects of IT resources is as per the hierarchical flow of the University governance structure.

3.2 The respective Heads of the Institutions shall be responsible for compliance with all University policies relating to the use/ownership of information resources, keeping in mind the Vision and Mission of the University.

3.3 Chief Technical Officer working at University Level shall coordinate various activities related to the adherence of the IT Policy in association with the IT Administrator of the respective Institute.

3.4 Individual Users - The users are solely responsible for the activities they perform on Institute/University servers with their "UserName/Password" pairs and IP (Internet Protocol) addresses assigned to them.

4. Violation of Policy:

Any violation of the basic objectives and areas mentioned under the IT Policy of the University shall be considered as a violation and as a misconduct and gross misconduct under University Rules.

5. Implementation of Policy:

For implementation of this policy, the University will decide necessary rules from time to time.

6. Review and Monitoring:

The Policy document needs to be reviewed at least once in two years and updated if required, so as to meet the pace of the advancements in the IT related development in the industry.

Review of this policy document shall be done by a committee chaired by Director General of the University. The other members of the committee shall comprise of the Chief Operating Officer, Director (Academic and General Administration), Head of Institutions, Executive Registrar and other members as nominated by the Chair.

Acknowledgement:

Nirma University wishes to acknowledge the following institutions whose related policies and procedure provided background and foundation in the preparation of this policy document:

Stanford University, Princeton University, Yale University, University of Michigan, Northern Caribbean University, Thapar University.

NIRMA UNIVERSITY- WI-FI POLICY

Wireless Network Resources:- Rules and Regulations for wireless Access of NU

The use of wireless network resources (wireless network connection etc.), which are allocated to students, faculty and staff members of Nirma University, are subject to the rules and conditions set forth within **"NU Computing and Networking Access Rules"** which are as below.

1. While using Institute/Nirma University (NU) IT Resources, the users should respect the copyright and intellectual property rights for all the resources created using Institute/Nirma University resources such as software, hardware, network resources. Users can use such resources by carefully observing such rules and procedures as obtaining permission/approval, adhering to licensing terms, complying with networking ethics etc...

2. Authorization and responsibilities

- The CSE Department of IT-NU makes available IT Resources to the users and maintains the operation and connectivity of the services in campus. CSE department will assign user name and password to the users for wireless access. For wireless access user must contact administrator, wireless network at A-104 computer centre with his/her laptop with duly filled registration form to complete registration process.
- The users of Institute/University are themselves solely responsible from the activities they perform on Institute/University servers with the "User name/Password" pairs and IP (Internet Protocol) addresses those are assigned to them.
- The Institute/University administration reserves all the rights to take appropriate action in the issues causing disputes amongst Institute/University Users/Special Users and the third parties.
- The Director IT-NU or committee appointed by Director, IT-NU is authorized and entitled to specify the all encompassing rules, regulations and policies about usage of IT Resources, review and revise them regularly according to the demands of the emerging new technologies, implement and enforce the amendments as and when required. The changes committed shall be announced publicly via web site on URL: http://www.nirmauni.ac.in/it/download/WIFIRR.pdf

3. General guide line for wireless users:

- This wireless access facility will be available during working hours of the Institute/ University.
- Use of the wireless/computing facilities/services must comply with the law of Institute/University, Government and all other concern regulatory authorities.
- Use of the Institute/University computing facilities/services must not interfere with any other user's usage. Detection of any such incident will lead to disciplinary action.
- User is not entitled to use computing facilities/services those he/she has not been authorised to use.
- User must not access any program or data which he/she has not been specifically authorised for the use.

- User must not use or copy any data or program belonging to other users without their explicit and specific permission.
- User must not use Institute/University computing facilities/services to harass, defame, libel, slander, intimidate, impersonate or otherwise abuse another person. In such cases legal action will be taken against user(s).
- User must not use Institute/University computing facilities/services for the creation, collection, storage, downloading or displaying of any offensive, obscene, indecent or menacing images, data or material capable of being resolved into such. (There may be certain legitimate exceptions for academic purposes which would require the fullest disclosure and special authorisations)
- Users must not use the Institute/University computing facilities/services to conduct any form of commercial activity without explicit permission. Use of "computing services" for commercial work may be governed by software licence constraints and users should verify that the intended use is permissible under the terms of those licences with their local IT Support Staff.
- Users must not use the Institute/University computing facilities/services to disseminate mass (unsolicited) mailings.
- Users must not install, use or distribute software on his/her laptop for which he/she has not had a licence or permission.
- In general, use of Institute/University "computing services" is available to users for study, research, academic work and administrative purpose of the Institute.

4. The personal use of the wireless network facilities by the users should in no way disrupt access priorities of those users that use the network for such **instructional, academic, research and administrative objectives.** In this respect, users must comply following points:

a. Peer-to-peer (P2P) file sharing programs, as well as violating copyright and licensing rules, use up an excessive amount of bandwidth that consequently hinders the use of network resources for purposes of priority. For this reason, it is strictly forbidden to use the **"peer-to-peer"** file sharing programs - even if they are used inside the campus network. Such usage includes, **but is not limited to,** the following programs:

KaZaA, iMesh, eDonkey2000, Gnutella, Napster, Aimster, Madster, FastTrack, Audiogalaxy, MFTP, eMule, Overnet, NeoModus, Direct Connect, Acquisition, BearShare, Gnucleus, GTK-Gnutella, LimeWire, Mactella, Morpheus, Phex, Qtella, Shareaza, XoLoX, OpenNap, WinMX, DC++, BitTorrent etc..

b. It is forbidden to use wireless network resources for **mass mailing, mail bombing, sending spam** and users are not allowed to provide the means to the third parties to perform similar acts.

c. It is prohibited to keep possession of server computers that **provide internet service** (web hosting service, e-mail service etc.) via wireless network.

d. Wireless network facilities of the Institute/University (network connection, user name, local/off-campus access etc.), which are granted as a privilege to the Institute faculty member, staff member or as a student, will be used by every user in an appropriate, legal, ethical and considerate manner

in accordance with the codes of behaviour and the regulations. It is the sole responsibility of all users that they are not endangering the safety of the resources by providing intentionally or unintentionally the means to **the third parties to access to network resources in other words, users must not pave the way for others to exploit privileges and act as if they are authorized to own the legitimate rights of the Institute/University users.** (proxy, relay, IP sharer, NAT etc., username/password). The user alone is answerable and accountable for every unlawful and unwanted consequence that may result from this act.

f. It is forbidden to commit **activities that threaten the security of the network** (DoS attack, port-network scan etc.)

g. Users are definitely not allowed to **change the any settings which are provided** by administrator of wireless network interface. These settings are to be handled and verified to the authentication system of the IT-NU. If due to hardware failure (as in the cases of breakdown or failure of wireless network access card etc.) users must certainly report it to administrator of wireless network at A-104 computer centre to carry out the proper procedure for desired change. (The new computer/wireless network card will not gain access to the wireless network, unless it is not authenticated by the authentication system).

5. If the use of the computing and networking facilities is proven to be incompatible with the educational and scholarly missions of the Institute/University and law of Government, and if the user has been proven to behave irresponsibly, inappropriately and illegally in a manner displaying disruptive and inappropriate conduct that endanger the efficiency, integrity, safety and continuity of networking services; and if the user breaches the rules and regulations set forth in this document, one or more of the following disciplinary actions may be taken as a reasonable response to eliminate threatening and abusive behaviour;

- The user may be warned verbally or with a written notification.
- Local and/or off-campus network access privileges may be restricted, for a specified term or indefinitely.
- Local and/or off-campus network access privileges may be suspended, modified or withheld for a specified term or indefinitely.
- The user codes and user accounts on the central server systems may be terminated for a specified term or indefinitely.
- Disciplinary mechanism of Institute/University such as investigation or prosecution may be initiated by the academic or administrative disciplinary proceedings/committee.
- judicial proceedings may be started,
- Any suitable disciplinary action as decided by the authority.

depending on

- the severity misconduct
- the magnitude of the resulting damage (on the resources and persons/organizations),
- recurrence of the misconduct

6. The wireless user, who has been proven to have disregarded or violated the rules and regulations, will be forewarned by the discipline committee. If one or more of the provisions of this policy are violated and IT Resources are inappropriately used, this may result in one or more disciplinary action(s) as stated above.

   These rules and regulations become effective as soon as they are publicized. The Institute reserves **the right to amend these Rules and Regulations** at any time without prior notice. The **updated version of the rules and regulations** is available on web site on URL: http://www.nirmauni.ac.in/it/download/WIFIRR.pdf.

LEGEND:

1 - SECURITY MAIN GATE - 80 mt. FROM HERE
2 - PARKING SPACE - 160 mt.
2-A - PARKING SPACE - 495 mt.
3 - TRANSPORT OFFICE - [T] -175 mt.
4 - CAR GARAGE - 225 mt.
5 - PETROL PUMP - 380 mt.
6 - POLICE STATION - 190 mt.
7 - SECURITY GATE 1 - 150 mt.
8 - SEWAGE TREATMENT PLANT - 110 mt.
9 - BLOCK-A MECHANICAL & CHEMICAL ENGG. DEPARTMENT - [A] - 140 mt.
10 - POST GRADUATE AND RESEARCH CENTER - [PG] - INSTITUTE OF TECH. DIRECTOR OFFICE - 215 mt.
11 - BLOCK-C INSTITUTE OF ARCHITECTURE - AUDITORIUM [C] - 330 mt.
12 - SPORT GROUND, HOCKEY & FOOTBALL - 130 mt.
13 - CONVOCATION STAGE - 130 mt.
14 - OPEN AIR THEATRE - 110 mt.
15 - WORK SHOP - [W] - 195 mt.
16 - HEALTH CENTER,DIESEL GENERATOR ROOM & ELEC. SUB STATION - 390 mt.
17 - BLOCK-B CIVIL ENGG. DEPT. , IT & COMP., M.C.A. DEPARTMENT, LIBRARY (INST. OF TECH.) - [B] - 175 mt.
18 - CANTEEN BUILDING, III CELL, STUDENT STORE, STUDENT SECTION, ATM & BANK - [K] - 270 mt.
19 - BLOCK-D ELECTRICAL ENGG., EC & IC DEPT. - [D] - 360 mt.
20 - SECURITY GATE 2 - 315 mt.
21 - WATER FALL STRUCTURE - 205 mt.
22 - UNIVERSITY BUILDING, AUDITORIUM, CENTRAL LIBRARY & CLASS ROOMS (WORK IN PROGRESS) - 355 mt.
23 - INSTITUTE OF LAW - [L] - 906 mt.
24 - FOOD COURT 2 - [F] - 996 mt.
25 - BOY'S HOSTEL - [H] - 630 mt.
26 - GIRL'S HOSTEL - [H] - 806 mt.
27 - STUDENT ACTIVITY CENTER (DINING HALL, CANTEEN, GYMNASIUM, ROBOTIC LAB, YOGA HALL, INDOOR GAMES ROOM) - 685 mt.
28 - UNDER GROUND WATER TANK (5 LACS LITER) - 680 mt.
29 - OVER HEAD WATER TANK (2 LACS LITER) - 715 mt.
30 - BOY'S HOSTEL - [H] - 880 mt.
30-A - GUEST HOUSE - [G] - 715 mt.
31 - SECURITY GATE 3 - 485 mt.
32 - INSTITUTE OF MANAGEMENT, AUDITORIUM - [M] - 575 mt.
32-A - UNIVERSITY OFFICE - 575 mt.
33 - FOOD COURT 1 - [F] - 758 mt.
33-A - MULTI PURPOSE ACTIVITY LAWN
34 - CRICKET GROUND - 760 mt.
35 - BADMINTON COURT - 700 mt.
36 - TENNIS COURT, BASKET BALL COURT, VOLLEY BALL COURT & CRICKET PITCH FOR PRACTICE - 780 mt.
37 - INSTITUTE OF PHARMACY - [P] - 670 mt.
38 - ANIMAL HOUSE - [AH] - 670 mt.
39 - ELECTRICAL SUBSTATION BUILDING & A.C. PLANT ROOM - 780 mt.
40 - INSTITUTE OF SCIENCE - [S] - 825 mt.
41 - HERBAL GARDEN - 630 mt.
42 - PROPOSED GIRL'S HOSTEL (15 STOREY) - [H] - 538 mt.
43 - NIRMA VIDHYAVIHAR (SCHOOL BUILDING)

0 10 30 60 100 150 Mt.

LAYOUT FOR NIRMA UNIVERSITY CAMPUS, AHMEDABAD.

N

NIRMA UNIVERSITY

INSTITUTE OF TECHNOLOGY

NAAC ACCREDITED 'A' GRADE

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https://twitter.com/ITNUOfficial