STUDENTS’ INFORMATION BOOKLET

B.Tech CSE + MBA Integrated Programme

2020-21

Volume – 2

(General Information about the Institute, Academic Rules & Regulations, Teaching and Examination Scheme)

Note: This is a Draft Copy
या कुंदेन्दुताषारहरधवला या शुभ्रवस्त्रावृता
या वीणावरदण्डमण्डितकरा या श्वेतपद्माः
या ब्रह्माच्युत शंकरप्रभृण्भदेव ैः
सदा वण्न्दता
सा मां पातु सरस्वती भगवती
निःशेषजाड्यापहा॥१॥

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.
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 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 25 years, 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 success in your academic pursuit.

Dr Rajesh Patel

Director (i/c)
Institute of Technology
Additional Director, School of Engineering
## INDEX

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Details</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>GENERAL INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- About the Institute</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Networking Initiatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Salient features about the Institute</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Departments of School of Engineering &amp; School of Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Programme Outcomes (POs)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- About the Programme</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td><strong>STUDENT CENTRIC INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Academic Calendar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Important Contact Places</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Philosophy of UG Programmes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Counselling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Student Societies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Looking beyond curriculum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Other Activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Information about Alumni Association</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Scheme of Scholarships</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Award of Medals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Award of NERF Medals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Guidelines for showing assessed answer-books</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td><strong>Teaching and Examination Scheme of B Tech CSE + Integrated Programme</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Term-I, II, III</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td><strong>Teaching and Examination Scheme of B Tech CSE + Integrated Programme</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Term-IV, V (Proposed)</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td><strong>ACADEMIC RULES &amp; REGULATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td><strong>FORMS, UNDERTAKING &amp; DECLARATIONS, Policies</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Acknowledgement Form</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Undertaking-I: Undertaking by Student (Anti-Ragging)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Undertaking-II: Conduct &amp; Discipline Rules for the Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Undertaking-III: to refrain from consumption of Drug and Alcohol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Undertaking-IV: Granting of Term</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Undertaking-V: Cancellation of Admission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Undertaking-VI: Eligibility Certificate/Migration Certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Nirma University- Information Technology Policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Nirma University- Wi-Fi Policy</td>
<td></td>
</tr>
</tbody>
</table>
1. General Information
ABOUT THE INSTITUTE

Founded with 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 celebrating its Silver jubilee year with a host of events and activities.

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. Discipline, an ethical and professional work culture, and commitment to providing quality education are the hallmarks that define the Institute.

The Institute is ranked 131 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 proves in the field of Robotics 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 25 years, 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
NETWORKING INITIATIVES

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.

<table>
<thead>
<tr>
<th>MoU with Foreign Universities/ Organizations</th>
<th>MoU with Educational Institutions / Research Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ITER, France</td>
<td>• Institute of Plasma Research</td>
</tr>
<tr>
<td>• University of Southern California</td>
<td>• Satellite Application Centre, Indian Space Research Organization</td>
</tr>
<tr>
<td>• Iowa state University, USA</td>
<td>• Central Building Research Institute, Roorkee</td>
</tr>
<tr>
<td>• Florida Atlantic University</td>
<td>• Ahmedabad Textile Industry’s Research Association</td>
</tr>
<tr>
<td>• Columbia University</td>
<td>• Physical Research Laboratory</td>
</tr>
<tr>
<td>• Binghamton University, Newyork</td>
<td>• Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar</td>
</tr>
<tr>
<td>• Carleton University, Canada</td>
<td>• Advanced Materials and Processes Research Institute (AMPRI), Bhopal</td>
</tr>
<tr>
<td>• University of Wyoming, USA</td>
<td>• National Chemical Laboratory (NCL), Pune</td>
</tr>
<tr>
<td>• Changwon National University, South Korea</td>
<td></td>
</tr>
<tr>
<td>• Coventry University, UK</td>
<td></td>
</tr>
<tr>
<td>• University of Newcastle, Australia</td>
<td></td>
</tr>
<tr>
<td>• University of Georgia, Athens, Atlanta</td>
<td></td>
</tr>
<tr>
<td>• Wadhwni Operating Foundation, USA</td>
<td></td>
</tr>
<tr>
<td>• Memorial University of Newfoundland, Canada</td>
<td></td>
</tr>
<tr>
<td>• Saxion University of Applied Sciences, Netherlands</td>
<td></td>
</tr>
<tr>
<td>• Royal Melbourne Institute of Technology, Australia</td>
<td></td>
</tr>
</tbody>
</table>
MoU with Industries

- INS Valsura, Jamnagar, Gujarat
- Tata Motors Limited, Mumbai
- J K Lakshmi Cement Limited
- Building Energy Efficiency Project (BEEP)
- INFOSYS Technologies, Bangalore (Renewed)
- enti INNOVATIONS Pvt Ltd.
- Mitsubishi Electric India Pvt. Ltd.
- NORD Drive Systems Pvt. Ltd.
- Tata Consultancy Services iON
- Gujarat Industrial Development Corporation
- IBM Technologies
- Secure Meters Ltd. Udaipur
- Dr. Fixit Institute of Structural Protection & Rehabilitation
- InspriOn Engineering Pvt Limited
- Confederation of Indian Industries (CII)

SALIENT FEATURES ABOUT THE INSTITUTE

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 environment that facilitates self-learning and life-long learning.

Keeping in mind the graduate skill set desire has shifted, the Institute focuses 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 and 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 multimedia.

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.

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 Instrumentation & Control Engineering (IC) 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 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 focused upon precise learning outcomes and articulating them as 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. Programme Outcomes (POs) statements about the knowledge, skills and attitudes (attributes) the graduate of a formal engineering program should have.

The following are the POs of B.Tech CSE + MBA integrated programme:-

**After undergoing this programme, the student shall be able to:**

1. apply knowledge of mathematics, science and engineering in practice
2. identify, critically analyse, formulate and solve engineering problems with comprehensive knowledge in the area of specialization
3. design a system and process to meet desired needs within realistic constraints such as health, safety, security and manufacturability
4. select modern engineering tools and techniques and use them with appropriate skills
5. to understand the impact of engineering solutions in a contemporary, global, economic, environmental, and societal context for sustainable development.
6. evaluate different business issues using an integrative approach
7. communicate effectively in different contexts
8. demonstrate leadership, teamwork, creativity and social skills
9. analyse global business environment for effective decision making
10. act as an ethical & socially responsible management professional
11. to appreciate the importance of goal setting and to recognize the need for life-long reflective learning
12. to develop solutions to engineering and management problems with cross cultural understanding in global context

ABOUT THE PROGRAMME

With an intake of 60 students, Integrated B.Tech (Computer Science and Engineering) - Masters in Business Administration, under the Faculty of Management, is a five year programme incorporating the latest Computer Engineering curriculum. This programme is also blended with Advanced Management courses with a variety of specializations in Management stream.

Computer Engineering curriculum includes courses related to advanced programming skills, Data structures, Algorithms, Computer Organization, Database Management System, Operating Systems, Web Technology, Data Analytics, Computer Networks, IoT, Cloud Computing etc. 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.

This programme aims to develop a techno-management profile of the candidates. Students will study engineering related courses for the first three years of the programme at the Institute of Technology and for later two years Management curriculum will be studied by them at the Institute of Management.

Specializations available:

- Marketing
- Finance
- Human Resource Development
- Operations Management
- International Business
- Information Management
- Business Analytics
- Economics and Finance

2

Student Centric
Information

STUDENT CENTRIC INFORMATION
NIRMA UNIVERSITY
INSTITUTE OF TECHNOLOGY

Integrated B. Tech. CSE – MBA
Academic Year: 2020-2021
Trimester - I

- Orientation Programme 22-10-2020 to 31-10-2020 (1.5)
- Commencement of Teaching Phase – I 02-11-2020 to 11-11-2020 (1.5)
- Teaching Phase – II 19-11-2020 to 16-01-2021 (8.5)
- Class Test (Teaching continue) 30-11-2020 to 05-12-2020
- Sessional (Teaching continue) 28-12-2020 to 02-01-2021
- LPW Examination 18-01-2021 to 22-01-2021 (1.0)
- Trimester End 22-01-2021
- Term End Examination 27-01-2021 to 30-01-2021
- Commencement of Trimester – II 01-02-2021

Total Weeks: 11.0 (Including LPW Examination)

HOLIDAYS
- Dussehra 25-10-2020 (Sunday)
- Guru Nanak’s Birthday 30-11-2020 (Monday)
• Christmas 25-12-2020 (Friday)
• Maker Sankranti 14-01-2021 (Thursday)
• Republic Day 26-01-2021 (Tuesday)

Diwali Vacation (Students): 12-11-2020 to 18-11-2020

Trimester - II

- Commencement of Teaching Phase 01-02-2021 to 10-04-2021 (10)
- Class Test (Teaching continue) 25-02-2021 to 03-03-2021
- Sessional (Teaching continue) 25-03-2021 to 31-03-2021
- LPW Examination 12-04-2021 to 17-04-2021 (1)
- Trimester End 17-04-2021
- Term End Examination 19-04-2021 to 23-04-2021
- Commencement of Trimester – III 26-04-2021

Total Weeks: 11.0 (Including LPW Examination)

Trimester - III

- Commencement of Teaching Phase 26-04-2021 to 03-07-2021 (10)
- Class Test (Teaching continue) 20-05-2021 to 26-05-2021
- Sessional (Teaching continue) 10-6-2021 to 15-06-2021
- LPW Examination 05-07-2021 to 10-07-2021 (1)
- Trimester End 10-07-2021
- Term End Examination 12-07-2021 to 17-07-2021
- Commencement of Trimester – IV 16-08-2021
- Summer Training / Vacation 19-07-2021 to 14-08-2021 (4 weeks)

Total Weeks: 11.0 (Including LPW Examination)

Note: List of Holidays for Trimester II and III will be declared later on

IMPORTANT CONTACT PLACES

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Place</th>
<th>Building</th>
<th>Contact Person</th>
<th>Contact Detail</th>
<th>Ext.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Director-ITNU &amp; School of Technology</td>
<td>PG</td>
<td>Dr R.N. Patel</td>
<td><a href="mailto:director.it@nirmauni.ac.in">director.it@nirmauni.ac.in</a></td>
<td>502/503</td>
</tr>
<tr>
<td>2</td>
<td>Additional Director- School of Engineering</td>
<td>A</td>
<td>Dr. R.N Patel</td>
<td><a href="mailto:addldirector.soeit@nirmauni.ac.in">addldirector.soeit@nirmauni.ac.in</a></td>
<td>9110</td>
</tr>
<tr>
<td>3</td>
<td>Dy. Registrar</td>
<td>PG</td>
<td>Shri B. J. Patel</td>
<td><a href="mailto:dyr.it@nirmauni.ac.in">dyr.it@nirmauni.ac.in</a></td>
<td>512</td>
</tr>
<tr>
<td>4</td>
<td>HOD-CH</td>
<td>A</td>
<td>Dr. Sanjay Patel</td>
<td><a href="mailto:hod_chem.it@nirmauni.ac.in">hod_chem.it@nirmauni.ac.in</a></td>
<td>9136</td>
</tr>
<tr>
<td>5</td>
<td>HOD-ME</td>
<td>A</td>
<td>Dr. K. M Patel</td>
<td><a href="mailto:hod_mech.it@nirmauni.ac.in">hod_mech.it@nirmauni.ac.in</a></td>
<td>102</td>
</tr>
<tr>
<td>6</td>
<td>HOD-EE</td>
<td>D</td>
<td>Dr. Santosh Vora</td>
<td><a href="mailto:hod_ee.it@nirmauni.ac.in">hod_ee.it@nirmauni.ac.in</a></td>
<td>9590</td>
</tr>
<tr>
<td>7</td>
<td>HOD-EC</td>
<td>D</td>
<td>Dr. Dhaval Pujara</td>
<td><a href="mailto:hod_ec.it@nirmauni.ac.in">hod_ec.it@nirmauni.ac.in</a></td>
<td>402</td>
</tr>
<tr>
<td>8</td>
<td>HOD-IC</td>
<td>D</td>
<td>Dr. J. B Patel</td>
<td><a href="mailto:hod_ic.it@nirmauni.ac.in">hod_ic.it@nirmauni.ac.in</a></td>
<td>405</td>
</tr>
<tr>
<td>9</td>
<td>HOD-CL</td>
<td>B</td>
<td>Dr. Urmil Dave</td>
<td><a href="mailto:hod_civil.it@nirmauni.ac.in">hod_civil.it@nirmauni.ac.in</a></td>
<td>211</td>
</tr>
<tr>
<td>10</td>
<td>HOD- (CSE)</td>
<td>B</td>
<td>Dr. Madhuri</td>
<td><a href="mailto:hod_ce.it@nirmauni.ac.in">hod_ce.it@nirmauni.ac.in</a></td>
<td>212</td>
</tr>
<tr>
<td>No.</td>
<td>Position</td>
<td>Type</td>
<td>Name</td>
<td>Email</td>
<td>Contact No.</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>-------------------------------</td>
<td>---------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>11</td>
<td>HOD-M&amp;H</td>
<td>B</td>
<td>Dr. Kunal Pathak</td>
<td><a href="mailto:hod_maths.it@nirmauni.ac.in">hod_maths.it@nirmauni.ac.in</a></td>
<td>9216</td>
</tr>
<tr>
<td>12</td>
<td>B.Tech CSE + MBA Integrated Programme Coordinator</td>
<td>PG</td>
<td>Dr. Sanjay Garg</td>
<td><a href="mailto:sgarg@nirmauni.ac.in">sgarg@nirmauni.ac.in</a></td>
<td>554</td>
</tr>
<tr>
<td>13</td>
<td>Chief Coordinator Exam, NU</td>
<td>PG</td>
<td>Prof. Anand Patel</td>
<td><a href="mailto:examsection.it@nirmauni.ac.in">examsection.it@nirmauni.ac.in</a></td>
<td>504</td>
</tr>
<tr>
<td>14</td>
<td>Librarian</td>
<td>B</td>
<td>Mr. Sujal Soni</td>
<td><a href="mailto:sujalsoni@nirmauni.ac.in">sujalsoni@nirmauni.ac.in</a></td>
<td>231</td>
</tr>
<tr>
<td>15</td>
<td>Student Section</td>
<td>K</td>
<td>Shri Praful Saini</td>
<td><a href="mailto:prafulsaini@nirmauni.ac.in">prafulsaini@nirmauni.ac.in</a></td>
<td>9322</td>
</tr>
<tr>
<td>16</td>
<td>III Cell</td>
<td>K</td>
<td>Mr. Nilang Vayeda</td>
<td><a href="mailto:placement.itnu@nirmauni.ac.in">placement.itnu@nirmauni.ac.in</a></td>
<td>141</td>
</tr>
<tr>
<td>17</td>
<td>Student Welfare</td>
<td>K</td>
<td>Mr. Bhavesh Parekh</td>
<td><a href="mailto:studentwelfare@nirmauni.ac.in">studentwelfare@nirmauni.ac.in</a></td>
<td>321</td>
</tr>
<tr>
<td>18</td>
<td>Bank</td>
<td>K</td>
<td>Branch Manager</td>
<td><a href="mailto:kalupurbank@nirmauni.ac.in">kalupurbank@nirmauni.ac.in</a></td>
<td>152</td>
</tr>
<tr>
<td>19</td>
<td>Dy. Registrar (Exam), NU</td>
<td>NIM</td>
<td>Dr. N.M Patel</td>
<td><a href="mailto:dy_registrar.exam@nirmauni.ac.in">dy_registrar.exam@nirmauni.ac.in</a></td>
<td>698</td>
</tr>
<tr>
<td>20</td>
<td>Account Section, NU</td>
<td>NIM</td>
<td>Ms. Palak Shah</td>
<td><a href="mailto:palak.shah@nirmauni.ac.in">palak.shah@nirmauni.ac.in</a></td>
<td>673</td>
</tr>
<tr>
<td>21</td>
<td>Academic Section, NU</td>
<td>NIM</td>
<td>Dr. Ravindra Sen</td>
<td><a href="mailto:asst_registrar@nirmauni.ac.in">asst_registrar@nirmauni.ac.in</a></td>
<td>680</td>
</tr>
<tr>
<td>22</td>
<td>Health Center</td>
<td>Near DG Set</td>
<td>Dr. Rajesh Patel</td>
<td><a href="mailto:healthcentre.nu@nirmauni.ac.in">healthcentre.nu@nirmauni.ac.in</a></td>
<td>222</td>
</tr>
<tr>
<td>23</td>
<td>Counsellor</td>
<td>NIM</td>
<td>Ms. Sapna Bhatt</td>
<td><a href="mailto:sapna.bhatt@nirmauni.ac.in">sapna.bhatt@nirmauni.ac.in</a></td>
<td>617</td>
</tr>
<tr>
<td>24</td>
<td>Transport Section</td>
<td>Bus Parking</td>
<td>Shri Shailesh Patel</td>
<td><a href="mailto:transport@nirmauni.ac.in">transport@nirmauni.ac.in</a></td>
<td>157</td>
</tr>
<tr>
<td>25</td>
<td>Anti-Ragging Committee</td>
<td>A</td>
<td>Dr. Amisha Naik</td>
<td><a href="mailto:amisha.naik@nirmauni.ac.in">amisha.naik@nirmauni.ac.in</a></td>
<td>415</td>
</tr>
<tr>
<td>26</td>
<td>Anti-Drug Committee</td>
<td>A</td>
<td>Dr. Amisha Naik</td>
<td><a href="mailto:amisha.naik@nirmauni.ac.in">amisha.naik@nirmauni.ac.in</a></td>
<td>415</td>
</tr>
<tr>
<td>27</td>
<td>Grievance Redressal Cell</td>
<td>PG</td>
<td>Shri B. J. Patel</td>
<td><a href="mailto:dyr.it@nirmauni.ac.in">dyr.it@nirmauni.ac.in</a></td>
<td>512</td>
</tr>
<tr>
<td>28</td>
<td>Women Development Cell</td>
<td>B</td>
<td>Dr. Neha Patni</td>
<td><a href="mailto:neha.patni@nirmauni.ac.in">neha.patni@nirmauni.ac.in</a></td>
<td>134</td>
</tr>
<tr>
<td>29</td>
<td>Complaints Committee for Prevention of Sexual Harassment</td>
<td>B</td>
<td>Dr. Madhuri Bhavsar</td>
<td><a href="mailto:hod_ce.it@nirmauni.ac.in">hod_ce.it@nirmauni.ac.in</a></td>
<td>212</td>
</tr>
<tr>
<td>30</td>
<td>Nirma Institute of Technology Alumni Association (NITAA)</td>
<td>PG</td>
<td>Dr. Priyanka Sharma</td>
<td><a href="mailto:priyanka.sharma@nirmauni.ac.in">priyanka.sharma@nirmauni.ac.in</a></td>
<td>525</td>
</tr>
<tr>
<td>31</td>
<td>Centre For Continuing Education</td>
<td>A</td>
<td>Dr. Yogesh N Trivedi</td>
<td><a href="mailto:yogesh.trivedi@nirmauni.ac.in">yogesh.trivedi@nirmauni.ac.in</a></td>
<td>404 106</td>
</tr>
</tbody>
</table>
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 objectives of the students’ associations 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 associations are actively functioning on the campus of the institute.

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:

<table>
<thead>
<tr>
<th>Student Associations</th>
<th>Faculty Coordinator/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACES Association of Computer Engineering Students</td>
<td>Prof. Pooja Shah (<a href="mailto:pooja.shah@nirmauni.ac.in">pooja.shah@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>AMS Association of MCA Students</td>
<td>Prof. Deepika Shukla (<a href="mailto:deepika.shukla@nirmauni.ac.in">deepika.shukla@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>ChESA Chemical Engineering Student Association</td>
<td>Prof. Narasimha Reddy (<a href="mailto:narasimhareddy.ravuru@nirmauni.ac.in">narasimhareddy.ravuru@nirmauni.ac.in</a>) Dr. Amita Chaudhary <a href="mailto:amita.chaudhary@nirmauni.ac.in">amita.chaudhary@nirmauni.ac.in</a></td>
</tr>
<tr>
<td>CSI Computer Society of India</td>
<td>Prof. Tejal Upadhyay (<a href="mailto:tejal.upadhyay@nirmauni.ac.in">tejal.upadhyay@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>ECO Electronics &amp; Communications Organization</td>
<td>Prof. Ami Shukla (<a href="mailto:ami.vora@nirmauni.ac.in">ami.vora@nirmauni.ac.in</a>), Prof. Akash Mecwan (<a href="mailto:akash.mecwan@nirmauni.ac.in">akash.mecwan@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>EESA Electrical Engineering Students' Association</td>
<td>Prof. C. B. Bhatt (<a href="mailto:chanakya.bhatt@nirmauni.ac.in">chanakya.bhatt@nirmauni.ac.in</a>), Prof. C. R. Mehta (<a href="mailto:chintan.mehta@nirmauni.ac.in">chintan.mehta@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>CodeAdda Club</td>
<td>Dr. Ankit Thakkar (<a href="mailto:ankit.thakkar@niramuni.ac.in">ankit.thakkar@niramuni.ac.in</a>)</td>
</tr>
<tr>
<td>IEEE-SB Institute of Electrical and Electronics Engineering</td>
<td>Prof. Manisha Shah (<a href="mailto:manisha.shah@nirmauni.ac.in">manisha.shah@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>iL² Invincible Leaders' League</td>
<td>Dr. Richa Mishra (<a href="mailto:richa.mishra@nirmauni.ac.in">richa.mishra@nirmauni.ac.in</a>), Dr. Samir K. Mahajan (<a href="mailto:samir.mahajan@nirmauni.ac.in">samir.mahajan@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>INFOCRATS</td>
<td>Prof. Sapan Mankad (<a href="mailto:sapanmankad@nirmauni.ac.in">sapanmankad@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>ISA (The International Society of Automation) STUDENTS' CHAPTER</td>
<td>Prof. Ankit Sharma (<a href="mailto:ankit.sharma@nirmauni.ac.in">ankit.sharma@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>IIChE Student Chapter Indian Institute of Chemical Engineers Student Chapter</td>
<td>Prof. Narasimha Reddy (<a href="mailto:narasimhareddy.ravuru@nirmauni.ac.in">narasimhareddy.ravuru@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>ISTE Indian Society for Technical Education</td>
<td>Prof. Ath Singhal (<a href="mailto:ath.singhal@nirmauni.ac.in">ath.singhal@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>MESA</td>
<td>Prof. Mihir Chauhan</td>
</tr>
<tr>
<td>Association</td>
<td>Contact Information</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mechanical Engineering Student</td>
<td>(<a href="mailto:mihir.chauhan@nirmauni.ac.in">mihir.chauhan@nirmauni.ac.in</a>), Prof. Rudresh Makwana (<a href="mailto:rudresh.makwana@nirmauni.ac.in">rudresh.makwana@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>Organization</td>
<td></td>
</tr>
<tr>
<td>OrCES</td>
<td>Prof. Tejas Joshi (<a href="mailto:tejas.joshi@nirmauni.ac.in">tejas.joshi@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>Organization of Civil Engineering</td>
<td>Prof Hemang Dalwadi (<a href="mailto:hemang.dalwadi@nirmauni.ac.in">hemang.dalwadi@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Society of Automotive Engineers</td>
<td>Prof. A.M Lakadawala (<a href="mailto:absar.lakadawala@nirmauni.ac.in">absar.lakadawala@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td>(SAE Nirma Collegiate Club)</td>
<td>Dr. Dhaval B Shah - <a href="mailto:dbshah@nirmauni.ac.in">dbshah@nirmauni.ac.in</a></td>
</tr>
<tr>
<td></td>
<td>Prof P N Kapil - <a href="mailto:pnkapil@nirmauni.ac.in">pnkapil@nirmauni.ac.in</a></td>
</tr>
<tr>
<td>ROBOCON Team</td>
<td>Dr. R.N Patel (<a href="mailto:rnp@nirmauni.ac.in">rnp@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td></td>
<td>Dr. Mihir Chauhan (<a href="mailto:mihir.chauhan@nirmauni.ac.in">mihir.chauhan@nirmauni.ac.in</a>)</td>
</tr>
<tr>
<td></td>
<td>Prof. Akash Macwan (<a href="mailto:akash.mecwan@nirmauni.ac.in">akash.mecwan@nirmauni.ac.in</a>)</td>
</tr>
</tbody>
</table>

**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 Competition ‘ABHIMANU’:**
- The first Inter-University Sports Competition ‘ABHIMANU’ was hosted by Institute of Technology under the flagship of Nirma University with great success.
- The festival spanning from April 10-13 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.

Nirma University Table Tennis team beat GTU with a 3-0 straight margin, while the Cricket team defeated Ahmedabad University by 4 wickets. The Chess team tied their breath-taking finals against St. Xavier’s College, Ahmedabad, and later won the tiebreaker blitz to take home the trophy.
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 Students 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 organises its annual Ras-Garba Mahotsav (RAMZAT) on the first Saturday after Navratri.

**Celebration of National Days**

On the occasion of Independence Day, the University organises 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 21st 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.
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.

Representatives of NITAA are as mentioned below:

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name</th>
<th>Role</th>
<th>Department</th>
<th>Email</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Rajesh Patel</td>
<td>President</td>
<td>-</td>
<td><a href="mailto:director.it@nirmauni.ac.in">director.it@nirmauni.ac.in</a></td>
<td>079-71652503</td>
</tr>
<tr>
<td>2</td>
<td>N P Gajjar</td>
<td>Sr. Vice President</td>
<td>EC</td>
<td><a href="mailto:nagendra.gajjar@nirmauni.ac.in">nagendra.gajjar@nirmauni.ac.in</a></td>
<td>079-71652537</td>
</tr>
<tr>
<td>3</td>
<td>Ketan Patel</td>
<td>Vice President</td>
<td>CE</td>
<td><a href="mailto:ketanpatel.rcap@gmail.com">ketanpatel.rcap@gmail.com</a></td>
<td>9898016908</td>
</tr>
<tr>
<td>4</td>
<td>Priyanka Sharma</td>
<td>Secretary</td>
<td>CE</td>
<td><a href="mailto:priyanka.sharma@nirmauni.ac.in">priyanka.sharma@nirmauni.ac.in</a></td>
<td>079-71652525</td>
</tr>
<tr>
<td>5</td>
<td>S V Jain</td>
<td>Jt. Secretary</td>
<td>ME</td>
<td><a href="mailto:sanjay.jain@nirmauni.ac.in">sanjay.jain@nirmauni.ac.in</a></td>
<td>079-71652541</td>
</tr>
<tr>
<td>6</td>
<td>Tejas Joshi</td>
<td>Treasurer</td>
<td>CL</td>
<td><a href="mailto:tejas.joshi@nirmauni.ac.in">tejas.joshi@nirmauni.ac.in</a></td>
<td>079-71652552</td>
</tr>
<tr>
<td>7</td>
<td>Vidita Tilva</td>
<td>Board Member</td>
<td>IC</td>
<td><a href="mailto:vidita.tilva@nirmauni.ac.in">vidita.tilva@nirmauni.ac.in</a></td>
<td>079-71652424</td>
</tr>
<tr>
<td>8</td>
<td>Parita Oza</td>
<td>Board Member</td>
<td>IT</td>
<td><a href="mailto:parita.prajapati@nirmauni.ac.in">parita.prajapati@nirmauni.ac.in</a></td>
<td>079-71652561</td>
</tr>
<tr>
<td>9</td>
<td>Kruti Lavingia</td>
<td>Board Member</td>
<td>CE</td>
<td><a href="mailto:kruti.lavingia@nirmauni.ac.in">kruti.lavingia@nirmauni.ac.in</a></td>
<td>079-71652572</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Position</td>
<td>Department</td>
<td>Email</td>
<td>Contact</td>
</tr>
<tr>
<td>---</td>
<td>--------------------</td>
<td>------------</td>
<td>------------</td>
<td>------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>10</td>
<td>Bhupendra Fataniya</td>
<td>Board Member</td>
<td>EC</td>
<td><a href="mailto:bdfataniya@nirmauni.ac.in">bdfataniya@nirmauni.ac.in</a></td>
<td>079-71652422</td>
</tr>
<tr>
<td>11</td>
<td>Amit Patel</td>
<td>Board Member</td>
<td>EE</td>
<td><a href="mailto:amit.patel@nirmauni.ac.in">amit.patel@nirmauni.ac.in</a></td>
<td>079-71652423</td>
</tr>
<tr>
<td>12</td>
<td>Tejas Raval</td>
<td>Board Member</td>
<td>ME</td>
<td><a href="mailto:tejas.raval@nirmauni.ac.in">tejas.raval@nirmauni.ac.in</a></td>
<td>079-71652109</td>
</tr>
<tr>
<td>13</td>
<td>Rushabh Shah</td>
<td>Board Member</td>
<td>MCA</td>
<td><a href="mailto:rushabh.shah@nirmauni.ac.in">rushabh.shah@nirmauni.ac.in</a></td>
<td>079-71652562</td>
</tr>
<tr>
<td>14</td>
<td>Nikita Choksi</td>
<td>Board Member</td>
<td>CH</td>
<td><a href="mailto:nikita.chokshi@nirmauni.ac.in">nikita.chokshi@nirmauni.ac.in</a></td>
<td>079-71652163</td>
</tr>
<tr>
<td>15</td>
<td>Dhaval Shah</td>
<td>Board Member</td>
<td>EC</td>
<td><a href="mailto:dhaval@nessa.in">dhaval@nessa.in</a></td>
<td>9825650354</td>
</tr>
<tr>
<td>16</td>
<td>Neeraj Shah</td>
<td>Board Member</td>
<td>IC</td>
<td><a href="mailto:ner.niraj.shah@gmail.com">ner.niraj.shah@gmail.com</a></td>
<td>9426543489</td>
</tr>
<tr>
<td>17</td>
<td>Rachit Oza</td>
<td>Board Member</td>
<td>CH</td>
<td><a href="mailto:rachitoza@gmail.com">rachitoza@gmail.com</a></td>
<td>9998341165</td>
</tr>
<tr>
<td>18</td>
<td>Sharang Parnerkar</td>
<td>Board Member</td>
<td>EE</td>
<td><a href="mailto:parnerkarsharang@gmail.com">parnerkarsharang@gmail.com</a></td>
<td>(+49)176 64296347</td>
</tr>
<tr>
<td>19</td>
<td>Anushrav Bhatt</td>
<td>Board Member</td>
<td>Civil</td>
<td><a href="mailto:anushrav@nirantargroup.com">anushrav@nirantargroup.com</a></td>
<td>8866772233</td>
</tr>
<tr>
<td>20</td>
<td>Kuntal Shah</td>
<td>Board Member</td>
<td>CSE</td>
<td><a href="mailto:kantal.shah@cricheroes.in">kantal.shah@cricheroes.in</a></td>
<td>9825068759</td>
</tr>
<tr>
<td>21</td>
<td>Nachiket Patel</td>
<td>Board Member</td>
<td>CSE</td>
<td><a href="mailto:nachiket.patel@digi-corp.com">nachiket.patel@digi-corp.com</a></td>
<td>9978948855</td>
</tr>
<tr>
<td>22</td>
<td>Sanket Thakkar</td>
<td>Board Member</td>
<td>CSE</td>
<td><a href="mailto:sanket@iconflux.com">sanket@iconflux.com</a></td>
<td>9825087877</td>
</tr>
<tr>
<td>23</td>
<td>Manan Thakkar</td>
<td>Board Member</td>
<td>CSE</td>
<td><a href="mailto:MThakkar@synoptek.com">MThakkar@synoptek.com</a></td>
<td>9898210786</td>
</tr>
<tr>
<td>24</td>
<td>Ravish Bhatt</td>
<td>Board Member</td>
<td>Mech</td>
<td><a href="mailto:rvbhatt86@gmail.com">rvbhatt86@gmail.com</a></td>
<td>7065153608</td>
</tr>
</tbody>
</table>

**OBJECTIVES OF NITAA**

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

1. To establish and maintain contact between the past students, present students and the Nirma Institute of Technology.
2. To pursue and sustain excellence in Education by interaction between the alumni, faculty and present students of Nirma Institute of Technology.
3. To strengthen Industry-Institute-Interaction and operate related activities for the benefit of students of Nirma Institute of Technology.
4. 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.
5. To institute scholarships and awards for deserving past and present students of the Nirma Institute of Technology for educational and research purposes as per the terms and conditions to be laid down by the board of Management.
6. To encourage and assist the students of the Nirma Institute of Technology in various academics and culture activities.

7. To establish endowments by donation to extend financial and other assistance to deserving past and present students of the Nirma Institute of Technology for educational and research purposes as per the terms and conditions mutually decided with Board of Management.

8. To establish endowments by donation to create Chair/s of Professor/s Emeritus in Nirma Institute of Technology in professional and related areas.

9. To generate funds through donation for conducting activities for achieving the objectives of the association.

10. To create followership for the Alumni to pursue post graduate studies or research.

11. To project constructive activities of Nirma Institute of Technology in India and abroad.

12. To provide common platform for exchange of ideas and disseminating knowledge in professional areas.

13. 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.
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)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Details</th>
<th>Amount (p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 Top students</td>
<td>Rs. 1,00,000/- each</td>
</tr>
<tr>
<td>2</td>
<td>Other 20 students</td>
<td>Rs. 90,000/- each</td>
</tr>
<tr>
<td>3</td>
<td>Another 25 students</td>
<td>Rs. 50,000/- each</td>
</tr>
</tbody>
</table>

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;
1. 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)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Details</th>
<th>Amount (p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25 Top students whose parents’ total annual income is up to Rs. 2.5 lacs</td>
<td>Rs. 90,000/- each</td>
</tr>
<tr>
<td>2</td>
<td>Other 25 students whose parents’ total annual income is up to Rs. 4.0 lacs</td>
<td>Rs. 50,000/- each</td>
</tr>
<tr>
<td>3</td>
<td>Another 25 students whose parents’ total annual income is up to 6.0 lacs</td>
<td>Rs. 25,000/- each</td>
</tr>
</tbody>
</table>

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 **The re-evaluation is permitted in the Semester End Examination / Supplementary Examination for Theory courses as per university norms on chargeable basis.**
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 CSE +
Integrated Programme
Term-I, II, III
NIRMA UNIVERSITY
Integrated B. Tech. (CSE)-MBA programme
Term - I

Course Code | CS10101
Course Title | Linear Algebra

Course Outcomes:
At the end of the course, students will be able to-
1. acquire basic knowledge of matrix theory
2. comprehend basic concept of vector space and linear transformation
3. apply the knowledge of linear algebra in engineering problems

Syllabus: Teaching hours: 30

Unit I


Unit II

Vector Space and Linear Transformation: Vector space, subspaces, linear combination, Wronskian, Basis of a vector space, Dimension, Rank-Nullity theorem (statement and verification by examples), Definition of linear transformation, types of linear transformations (Rotation, Reflection, Expansion, Contraction, Projection), Matrix of linear transformations, Change of a basis.
**Tutorials:**
This shall consist 8 tutorials based on the syllabus.

**Self-Study:**
Self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from the self-study contents.

**Suggested Readings:**

1. D C Lay, Linear Algebra and its Application; Pearson Publication.
3. H Anton, Elementary linear algebra with applications; John Wiley Publication.
5. S Kumaresan, Linear algebra - A Geometric approach; PHI Publication.

L=Lecture, T=Tutorial, P=Practical, C=Credit

^this is not an exhaustive list
Course Code | CSI0102
Course Title | English I

Course Outcomes:
At the end of the course, students will be able to-
1. develop their vocabulary
2. determine the use of correct spellings
3. assess, review and recompose different pieces of writing
4. construct grammatically correct English

Syllabus:

Unit I
Grammar: Overview of English Grammar, Tenses and Verb Structure, Articles, Prepositions, Voices (Passive and Active), Direct and Indirect Speech, Punctuations and Capitalization, Typical Mistakes by Non-English Speaking Individuals

Unit II
Vocabulary and Orthography: Confusable Words, One Word Substitute, Synonyms & Antonyms, Homophones, Idioms & Phrases, Plurals, Prefix & Suffix

Unit III
Comprehension and Usage: Unseen Passages, Precise & Summarizing, Expansion of Ideas

Laboratory Work:
The Term work and Exercises will be based on the topics covered in the syllabus. Minimum 8 exercise should carried out.

**Self-Study:**
Self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from the self-study contents.

**Suggested Readings**:  

L=Lecture, T=Tutorial, P=Practical, C=Credit  
^this is not an exhaustive list
NIRMA UNIVERSITY
Integrated B. Tech. (CSE)-MBA programme
Term - I

Course Code  |  CSI0103
Course Title  |  Physics

Course Outcomes:
At the end of the course, students will be able to -
1. Acquire the knowledge of fundamental principles of physics and relate to the engineering science,
2. Apply the concepts of Physics for solving Engineering problems,
3. Relate principles of Physics for solving new and challenging problems of technology.

Syllabus:
Teaching hours: 20

Unit I
Elementary Quantum Physics: Introduction to Quantum Physics: Particle in a three dimensional box,

Unit II


Unit III

Introduction to Fiber Optics: Introduction of fiber-optic system, Principle and construction of fiber cable, Acceptance angle and numerical aperture, Types of Optical fiber: Based on material & based on mode of propagation, Index profile, Fiber optic communication link, Fiber optic sensor, Advantages of fiber optic system.

Self-Study:
Self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from the self-study contents.

Suggested Readings:
3. B. L. Theraja, Physics for Engineers, S Chand Publication

Experiments:
1. To estimate the solar energy in terms of solar power and V-I characteristics, Power load characteristics of the solar cell.
2. To evaluate the charge to mass ratio for electron by applying perpendicular magnetic field on the electron beam in CRT.
3. To measure the resistivity of semiconductor by four point probe method at different temperature.
4. Determination of forbidden energy band gap in a semiconductor using a junction diode.
5. To measure electrical resistivity by Hall Effect for semiconductor chip.
6. To measure the wavelength of light from sodium vapor lamp and find the thickness of thin film using Newton’s rings method.
7. Curie Temperature measurement of ferromagnetic materials.
NIRMA UNIVERSITY
Integrated B. Tech. (CSE)-MBA programme
Term - 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>CSI0104</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Fundamentals of Programming</td>
</tr>
</tbody>
</table>

Course Outcomes:
After successful completion of the course, a student will be able to –
1. explain the fundamental programming concepts and methodologies essential to build programs
2. analyze given problem and apply appropriate operator/control construct for programming the same
3. apply array structure and manipulate strings in programming

Syllabus

Unit I

Unit II
Basic structure of C program: Character set, Tokens, Identifiers in C, Variables and Data Types, Constants, Console I/O Operations. Operators and Expressions: Expressions and Arithmetic Operators, Relational and Logical Operators, Conditional operator, size of operator, Assignment operators and Bitwise Operators. 5
Unit III
Decision Making and Control Statements: If Statement, Switch Statement, Unconditional Branching using go to statement, While Loop, Do While Loop, For Loop, Break and Continue statements.

Unit IV
Arrays: Defining Arrays, Sorting and Searching Arrays, Multidimensional Arrays, Variable-Length Arrays.

Self-Study:
The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

Laboratory Work:
Laboratory work will be based on above syllabus with minimum 8 experiments to be incorporated.

Tutorial Work:
The tutorial work will be based on the topics covered in the syllabus. Minimum 8 tutorials should be carried out.

Suggested Readings^:
1. Deitel and Deitel, ‘C How to program’, Pearson.

L=Lecture, T=Tutorial, P=Practical, C=Credit
^this is not an exhaustive list
Course Code | CSI0105
---|---
Course Title | Elements of Electrical Engineering

Course Outcomes:
At the end of the course, students will be able to –
1. interpret the electrical energy terms and relate its usage in various applications
2. illustrate the role of circuit elements in different system conditions
3. distinguish the operational aspects of ac-dc systems

Syllabus

**Unit I**
Review of DC Circuits: Kirchhoff's laws, solution of star-delta circuits, charging and discharging of capacitor, series-parallel magnetic circuits, fringing effect, comparison between electric and magnetic circuit, concept of induced emfs, series-parallel connection of inductors, rise and decay of current in inductive circuit.

**Unit II**
Single-phase AC Circuits
Generation of alternating emf, instantaneous, rms, peak, average values and related other terms, vector representation of AC quantities, Steady state analysis of R, L, C series circuits, power triangle, resonance in series circuits.

Teaching hours: 20
Unit III

Three-phase AC Circuits: Generation of three-phase emf, star connection, delta connection, relationship between line and phase quantities, power measurement in three-phase circuit, variation in wattmeter reading with power factor.

Self-Study:
The self-study contents will be decided at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

Laboratory Work:
This shall consist of at least 8 experiments based on the above syllabus.

Suggested Readings^:

L=Lecture, T=Tutorial, P=Practical, C=Credit
^this is not an exhaustive list
Course Code  | CS10201  
---|---
Course Title  | Calculus

Course Outcomes:
At the end of the course, students will be able to-
1. apply differential and integral calculus to solve engineering problems
2. apply convergence of infinite series in engineering field
3. deal with functions of several variables that are essential in engineering

Syllabus:  
Teaching hours: 30

Unit I  
**Integral Calculus**: Evaluation of definite and improper integrals, Beta and Gamma functions and their properties, Applications of definite integrals to evaluate surface areas and volumes of revolutions, Multiple Integration: double and triple integrals (Cartesian and polar), change of order of integration in double integrals, Change of variables (Cartesian to polar), Applications: areas and volumes by (double integration) Center of mass and Gravity (constant and variable densities).

Unit II  
7
Differential Calculus: Limit, continuity and partial derivatives, total derivative and chain rule, Euler’s theorem, Taylor’s series in two variables, Tangent plane and normal line, Maxima, minima and saddle points Method of Lagrange multipliers.

Unit III

Infinite Series: Convergence of series, tests for convergence, power series, Taylor’s and Maclaurin’s series. Series for exponential, trigonometric and logarithmic functions.

Tutorials:
This shall consist 10 tutorials based on the syllabus.

Self-Study:
Self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from the self-study contents.

Suggested Readings^:
1. G B Thomas and R L Finney, Calculus and Analytic geometry; Pearson.

^this is not an exhaustive list
Course Code | CS10202
---|---
Course Title | Engineering Graphics

**Course Outcomes:**
At the end of the course, students will be able to-
1. interpret the fundamental principles of engineering graphics and related drawing standards,
2. construct profiles of various engineering curves,
3. apply the principles of orthographic and isometric projection for various solid geometries,
4. construct engineering drawing using computer aided drafting tools.

**Syllabus:**

**Unit I**

*Introduction to Engineering Drawing:* Importance and applications of engineering drawing for various branches of engineering, drawing instruments, BIS Code of Practice, Lines, Lettering and Dimensioning, Scales, basic geometrical construction, Sheet Layout.

**Unit II**

*Engineering Curves:* Construction of Conics by different methods, construction of cycloid, epicycloids and hypocycloid, construction of involutes, constructions of archimedean spiral and helix.

**Unit III**

*Solid Geometry:* Principle of Orthographic Projections, projections of points, projections of straight lines, projections of planes.

**Unit IV**

Teaching hours: 20
Orthographic Projections and Isometric Projections: Conversion of pictorial views into orthographic projections including sectional orthographic projection. Conversion of orthographic views into isometric projections / views.

Unit V

Computer Aided Drafting: Understanding of GUI (Graphical User Interface) of drafting software, demonstration of use of available Drawing Commands, Modifying / Editing commands, Annotation and Dimensioning Commands, Concepts of Layers, demonstration of various line styles and construction of drawings in soft form using drafting software.

Self-Study:
The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

Laboratory Work:
Laboratory work will be based on the above syllabus with minimum 8 experiments.

Suggested Readings^:
- Bhatt, N. D., Engineering Drawing, Charotar publication.
- Bethune, J. D. Engineering Graphics with AutoCAD®, PHI Publication.

L=Lecture, T=Tutorial, P=Practical, C=Credit
^this is not an exhaustive list
NIRMA UNIVERSITY
Integrated B. Tech. (CSE)-MBA programme
Term – II

Course Code | CSi0203
Course Title | English II

Course Outcomes:
At the end of the course, students will be able to-
1. appraise written business communication and evaluate its relevance
2. create, examine, and structure project reports, business proposals, recommendations, and evaluation reports etc. employing effective strategies of persuasion
3. construct effective and persuasive written communication for diverse business and audiences
4. practice business communication for effectively

Syllabus:

Unit I 4
Introduction and Paragraph Writing: Introduction to business writing, Structuring a paragraph, Construction of a paragraph and types of content, Techniques of paragraph writing.

Unit II 3
Essay Writing: Introduction and types of essays, Characteristic features of an essay, Components of an essay, Essay writing and editing, Guiding principles.

Unit III 4
Business Letters and Email Writing: Business letters- structure and layout, Business letters- elements of style, Types of business letters, Email writing basics, Email writing etiquette.

Unit IV 2

Unit V

Proposal Writing: Purpose of proposal writing, Types of proposals, Structure of proposals, Developing a proposal

Unit VI

Creative Writing: Types of creative writing, Writing for advertising, Writing reviews.

Unit VII

Cover Letter and Resume Writing: Application and cover letters, Types of resumes, Features of a resume, Preparing a resume.

Unit VIII

Other Types of Business Writing: Inter-office memos, Circulars, Notice, agenda and minutes.

Laboratory Work:
The Term work and exercises will be based on the topics covered in the syllabus. Minimum 8 exercises should carried out.

Self-Study:
Self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from the self-study contents.

Suggested Readings^:

L=Lecture, T=Tutorial, P=Practical, C=Credit

^this is not an exhaustive list
Course Code | CSI0204
---|---
Course Title | Basic Electronics

**Course Outcomes:**
At the end of the course, students will be able to –
1. recognize the functions of electronic devices and basic circuits
2. design circuits based on operational amplifier
3. apply the concepts of number system conversion and Boolean algebra for digital logic design

**Syllabus:**

**Teaching hours:** 20

**Unit I** 6

*Analog Electronics:* Physics of semiconductors, half and full wave rectifiers, special purpose diodes, clipping and clamping circuits, BJT and its biasing circuits, FET and its biasing circuits, applications such as amplifiers and oscillators, overview of opto-electronics devices.

**Unit II** 7

*Operational Amplifier and its Applications:* Operational amplifier, comparator, timer IC and multi-vibrators.

**Unit III** 7

*Digital Electronics:* Overview of number systems and its arithmetic, binary codes, Boolean-algebra & simplification of Boolean expression; logic gates, concept of universal logic; implementation of Boolean expressions using logic gates, application of digital circuits (e.g. adder, subtractor, multiplexer,
Self-Study:
The self-study contents will be decided at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

Laboratory Work:
This shall consist of at least 8 experiments based on the above syllabus.

Suggested Readings^:
1. V. K. Mehta, Rohit Mehta, Principles of Electronics, S. Chand and Co. Ltd.

L=Lecture, T=Tutorial, P=Practical, C=Credit
^this is not an exhaustive list
Course Code | CS10205
Course Title | Structured Programming

**Course Outcomes:**
After successful completion of the course, a student will be able to –
1. explain the importance of modular programming
2. apply pointers and structures to solve programming problems
3. create files and apply memory management techniques in programming language

**Syllabus:**

**Unit I**

**Introduction to Structural programming:** Understanding Structural Programming and its Importance.

**Functions:** Introduction to modular programming, User defined functions, formal parameters, actual parameters Passing Arguments by Value and By Reference, Scope Rules, Recursion, Recursion vs. Iteration, Math Library Functions, Passing Arrays to Functions.

**Unit II**

**Pointers:** Pointer Variable Definitions and Initialization, Pointer Operators, Passing Arguments to Functions by Reference, Pointer Expressions and Pointer Arithmetic, Relationship between Pointers and Arrays, Arrays of Pointers, Pointers to Functions.
Unit III

Structure and Union: Structure Definition, Declaring Variables of Structure, Initializing Structures, Accessing Structure Members, Using Structures with Functions and Pointers, Union.

Unit IV

File Handling and memory management: Files and Streams, Creating a File, Reading and writing Data from a File and to a File, File handling functions, dynamic memory allocation using malloc, calloc and realloc.

Self-Study:
The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

Laboratory Work:
Laboratory work will be based on above syllabus with minimum 8 experiments to be incorporated.

Suggested Readings^:
1. Deitel and Deitel, 'C How to program', Pearson.

L=Lecture, T=Tutorial, P=Practical, C=Credit
^this is not an exhaustive list
NIRMA UNIVERSITY
Integrated B. Tech. (CSE)-MBA programme
Term - III

<table>
<thead>
<tr>
<th>Course Code</th>
<th>CSI0301</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Object Oriented Programming</td>
</tr>
</tbody>
</table>

Course Outcomes:
At the end of the course, students will be able to –
1. explain difference between structured programming and object oriented programming with basic principles of these two
2. use basic constructs of object oriented programming language for programming
3. apply inheritance, polymorphism and encapsulation properties to develop object oriented program

Syllabus:

Unit I

History and overview of Java: Creation of Java, Evolution of Java, features of Java, byte code, Java Development Kit (JDK), Java Virtual Machine (JVM), Introduction to three OOP principles (Inheritance, Polymorphism, Encapsulation), Introduction to Classes and Methods.

Unit II
Data types, variables, Operators in Java

Teaching Hours: 20
Control Statements: Selection statements (i.e. if, switch etc.), iteration statements (i.e. while, do-while, the for-each version of the for Loop, Nested Loops etc.), jump statements (i.e. break, continue).
Arrays: one dimensional array, multi-dimensional array, alternative array declaration statements.

Unit III
Classes and Methods: class fundamentals, declaring objects, assigning object reference variables, adding methods to a class, returning a value, constructors, this keyword, overloading methods, argument passing, object as parameter, returning objects, access control, static, final, command line arguments, variable-length arguments.
Inheritances: Basics, member access and inheritance, super class references, using super, multilevel hierarchy, constructor call sequence, method overriding, dynamic method dispatch, abstract classes
Packages and Interfaces: defining and creating package, access protection, importing packages, basics of interfaces, variables in interfaces, extending interfaces

Self-Study:
The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

Laboratory Work:
Laboratory work will be based on above syllabus with minimum 8 experiments to be incorporated that will be considered for evaluation.

Suggested Readings^:

L=Lecture, T=Tutorial, P=Practical, C=Credit
^this is not an exhaustive list
Course Code: CSI0302
Course Title: Differential Equations

Course Outcomes:
At the end of the course, students will be able to-
1. apply techniques of differential equations in modeling to solve engineering problems
2. recognize and use the appropriate method to solve second order ordinary differential equations
3. use power series to solve differential equations related to engineering field
4. classify partial differential equations and apply appropriate analytic method to solve it

Syllabus:

Unit I
Ordinary Differential Equations: Introduction, Formation of ordinary differential equation, First order and first degree differential equations, Linear differential equations of higher order with constant coefficients, Complementary function, Particular integral, Method of undetermined coefficients, Method of variation of parameters, Higher order linear differential equations with variable coefficients (Cauchy’s and Legendre’s forms), Simultaneous linear differential equations and related applications,

Unit II

Teaching Hours: 30
**Series Solution of Ordinary Differential Equations:** Power series solutions near an ordinary point, Legendre polynomials, Regular singular points, Power series solutions near a Regular singular point, Bessel functions of the first kind and their properties

**Unit III**

**Partial Differential Equations:** First order partial differential equations and its formation, solutions of first order linear and non-linear partial differential equations, Method of separation variables and solution of heat equation.

**Tutorials:**
This shall consist tutorials based on the syllabus.

**Self-Study:**
Self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from the self-study contents.

**Suggested Readings^:**
1. W E Boyce and R C DiPrima, Elementary Differential Equations and Boundary Value Problems; Wiley India.
7. S L Ross, Differential Equations; Wiley India.
8. E A Coddington, An Introduction to Ordinary Differential Equations; Prentice Hall India.

---

^this is not an exhaustive list
Course Code  CS10303
Course Title  Digital Electronics

Course Outcomes:
At the end of the course, students will be able to -
1. describe the basic building blocks of various digital circuits
2. design combinational logic and sequential logic circuits using basic components
3. identify digital components in computer organization
4. analyze digital circuits and its applications

Syllabus:

Unit I
Overview of Binary Systems and Logic Gates: Introduction, Binary numbers, conversions, Octal, Hexadecimal Numbers, Complements, Binary Codes, binary storage, registers, Binary Logic
Boolean Algebra and Logic Gates, Boolean algebra, theorems and properties, Boolean functions simplification, canonical and standard forms, other logic operations, Digital logic gates, IC logic families.

Unit II
Boolean Function Simplification: The K-Map method, SOP/POS Simplification with don't care conditions using basic and universal gates,
Tabulation method

**Unit III**
**Combinational Logic**: Introduction, analysis and design of various combinational circuits such as Adders, Subtractors, Code Convertors, Comparators, Binary Parallel Adder, Decimal Adder, magnitude comparators, ROMS, decoders, multiplexers, PLA.

**Unit IV**
**Sequential Logic**: Introduction, flip-flops, triggering of flip-flop, analysis and design of clocked sequential circuits, design with state equations, registers, shift registers, ripple counters, synchronous counters.

**Unit V**
**Digital Integrated Circuits**: Introduction, BJT characteristics, RTL and DTL logic. IIL and TTL Logic. ECL and MOS Logic CMOS Logic, ADC, DAC

**Self-Study:**
The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

**Laboratory Work:**
Laboratory work will be based on above syllabus with minimum 8 experiments to be incorporated that will be considered for evaluation. Laboratory work will be based on Digital Trainer kits and simulators.

**Suggested Readings^:**
1. M. Morris Mano, Digital Logic and Computer Design, PHI
3. Virendra Kumar, Digital Technology Principals and Practices, New Age International
4. Holdsworth, Digital logic design, Elsevier Science

\[L=Lecture, \ T=\text{Tutorial}, \ P=\text{Practical}, \ C=\text{Credit}\]

^this is not an exhaustive list
Course Code | CSI0304
---|---
Course Title | Discrete Mathematics

**Course Outcomes:**
At the end of the course, students will be able to
1. interpret the preliminaries of discrete mathematics
2. comprehend role of discrete mathematics in theoretical computer science
3. recognize the importance of formal approach for solving computing problems

**Syllabus:**

**Unit I**

**Unit II**
*Proof Techniques:* proof methods and strategies, forward proof, proof by contradiction, principles of mathematical induction, strong induction, the

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>
well-ordering principle, recursive definition, proof by contraposition, proof of necessity and sufficiency.

Unit III
Propositional Logic: syntax, semantics, validity and satisfiability, basic connectives and truth tables. logical equivalence: the laws of logic, logical implication, rules of inference, the use of quantifiers.

Unit IV
Algebraic Structures and Morphism: algebraic structures with one binary operation, semi groups, monoids, groups, congruence relation and quotient structures, free and cyclic monoids and groups, permutation groups.

Unit V
Graphs and Trees: graphs and their properties, isomorphism, Eulerian and Hamiltonian walks, graph coloring, perfect graph, rooted trees, trees and sorting, weighted trees and prefix codes, shortest path, spanning trees.

Unit VI
Recurrence Relations and Recursive Algorithms: Recurrence relations, linear recurrence relations with constant coefficients, use of recurrence relations for analysis of algorithms.

Self-Study:
The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

Tutorial Work:
Tutorial work will be based on the above syllabus with minimum 10 tutorials to be incorporated.

Suggested Readings^:
2. Tremblay, J.P. & Manohar, Discrete mathematical structures with application to computer science, McGraw Hill.

^this is not an exhaustive list
NIRMA UNIVERSITY
Integrated B. Tech. (CSE)-MBA programme
Term - III

Course Code   | CSI0305
Course Title  | Environmental Studies

Course Outcomes:
At the end of the course, students will be able to –
1. outline the multidisciplinary nature of environment and sustainability
2. explain types of environmental pollution and its control measures
3. appraise need of e-waste management

Syllabus:

Unit I
Environment and Sustainability: Environment: Components, Multidisciplinary nature, Impact Assessment; Concept of sustainability, Carbon credit.
Unit II

Environmental Pollution: Types of environmental pollution and pollutants; Causes, effects and control measures of air pollution, water pollution and noise pollution.

Unit III


Self-Study:
The self-study contents will be declared at the commencement of semester.

Tutorial Work:
Tutorial work will be based on above syllabus with minimum 03 Assignments to be incorporated.

Suggested Readings^:

L=Lecture, T=Tutorial, P=Practical, C=Credit

^this is not an exhaustive list
4. Teaching and
Examination Scheme of B Tech CSE + Integrated Programme
Term- IV, V (*Proposed)

TEACHING & EXAMINATION SCHEME OF INTEGRATED B. TECH (CSE) – MBA PROGRAMME
Proposed Framework for Phase II: (Last Two Years)

<table>
<thead>
<tr>
<th>Duration</th>
<th>2 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of a Term</td>
<td>11-12 Weeks (approximately)</td>
</tr>
<tr>
<td>One Credit Hour</td>
<td>10 hours of classroom contact hours (10 Sessions of 60 minutes each)</td>
</tr>
<tr>
<td>Session Duration</td>
<td>60 minutes each</td>
</tr>
<tr>
<td>Credits Requirements</td>
<td>105 Credits</td>
</tr>
<tr>
<td>No. of Terms</td>
<td>6 Terms</td>
</tr>
<tr>
<td>Total Contact Hours</td>
<td>1050 (105*10)</td>
</tr>
<tr>
<td>Major</td>
<td>At least 18 credit hours of electives in chosen area of Specialization</td>
</tr>
<tr>
<td>Minor</td>
<td>Minimum 12 credit hours of electives in Information Management &amp; Business Analytics Specialization</td>
</tr>
<tr>
<td>Summer Internship/ International Emersion</td>
<td>8-10 weeks at the end of the first year</td>
</tr>
</tbody>
</table>
| Field Courses | (1) Managing Social Project (MSP) (Compulsory course) 
(2) Dissertation Project (Elective course) |
<table>
<thead>
<tr>
<th>Programme Structure</th>
<th>First Year – 60 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Core Courses : 51 credits</td>
</tr>
<tr>
<td></td>
<td>• General Electives : 9 credits</td>
</tr>
<tr>
<td></td>
<td>Second Year – 45 credits</td>
</tr>
<tr>
<td></td>
<td>• Specialization Elective Courses : 30 credits</td>
</tr>
<tr>
<td>Major Specializations Areas</td>
<td>Marketing, Finance, Human Resource Management,</td>
</tr>
<tr>
<td></td>
<td>Operations Management and International Business.</td>
</tr>
<tr>
<td>Minor Specialization Area</td>
<td>Information Management and Business Analytics</td>
</tr>
</tbody>
</table>
## Phase II – Fourth Year
### Term – I

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Scheme</th>
<th>Examination Scheme</th>
<th>Duration</th>
<th>Component Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
<td>C</td>
<td>TEE LPW/PW CE LPW/PW TEE</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Financial Accounting and Reporting</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Economic Analysis for Business Decisions</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Marketing Management-I</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Organizational Behaviour</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Data Analytics for Managers</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Communication for Managers*</td>
<td>1.5*</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Operations Management-I</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Business Ethics</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>16.5</td>
</tr>
</tbody>
</table>

* The Course will be spread over 2 terms (term I & II) and 3.0 Credits will be awarded on successful completion of the examination components, at the end of Term II.

## Term – II

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Scheme</th>
<th>Examination Scheme</th>
<th>Duration</th>
<th>Component Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
<td>C</td>
<td>TEE LPW/PW CE LPW/PW TEE</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Corporate Finance – I</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Macroeconomics</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Accounting for Decision Making</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Marketing Management- II</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Operations Research</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Communication for Managers*</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Management Information System</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Operations Management-II</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Human Resources</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
* The Course will be spread over 2 terms (term I & II) and 3.0 Credits will be awarded on successful completion of the examination components, at the end of Term II.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Scheme</th>
<th>Examination Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Term – III</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L</td>
<td>LPW/PW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TEE</td>
<td>LPW/PW</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Corporate Finance – II</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>Indian Economy in Global Context</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Business Research Methods</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Managing Social Projects</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Strategic Management</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>Business Laws</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>General Elective – 1’</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>General Elective – 2’</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>General Elective – 3’</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>General Elective – 4’</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>General Elective – 5’</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
<td>General Elective – 6’</td>
<td>1.5</td>
<td>0</td>
</tr>
</tbody>
</table>

* General Electives(GE): A pool/basket of GE courses will be offered to the students for selection. Each student has to select 6.0 Credit GE courses (i.e. 6 GE courses) in Term III from this pool/basket. The list of GE courses selected by each student will be finalized and notified before the commencement of Term III. The actual number of courses offered in a particular year shall depend on registration and available resources. An elective course will be offered only if a minimum number of students opt for it.
List of General Electives: Given below is the list of General Elective courses. The actual number of courses offered in a particular year shall depend on registration and available resources. An elective course will be offered only if a minimum number of students opt for it.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Big Data Architecture and Applications</td>
<td>1.5</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Business Forecasting</td>
<td>1.5</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Business Sustainability</td>
<td>1.5</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Conflict Management and Negotiations Skills</td>
<td>1.5</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Cross-Cultural Issues in Management</td>
<td>1.5</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Cyber Security</td>
<td>1.5</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Design Thinking</td>
<td>1.5</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>E-Commerce: Opportunities &amp; Challenges</td>
<td>1.5</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Emotional Intelligence</td>
<td>1.5</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Entrepreneurship Motivation Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Evolution of Management Thoughts</td>
<td>1.5</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Fundamentals of Data Science and Decision Support</td>
<td>1.5</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Green Business</td>
<td>1.5</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Indian Business History</td>
<td>1.5</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Indian Philosophy, Values and Management</td>
<td>1.5</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Indirect Taxation</td>
<td>1.5</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Industry Analysis</td>
<td>1.5</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>Innovation Management</td>
<td>1.5</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>Introduction to Econometrics</td>
<td>1.5</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Managerial Implications of Globalization</td>
<td>1.5</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td>Managing Global Markets</td>
<td>1.5</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>Managing New Age Organizations</td>
<td>1.5</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>MARKSTART Simulation</td>
<td>1.5</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>Personal Finance</td>
<td>1.5</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>Personal Taxation</td>
<td>1.5</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>Presentation Skills</td>
<td>1.5</td>
</tr>
<tr>
<td>27</td>
<td></td>
<td>Public Finance</td>
<td>1.5</td>
</tr>
<tr>
<td>28</td>
<td></td>
<td>Social and Rural Entrepreneurship</td>
<td>1.5</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td>Social Media and Business</td>
<td>1.5</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>Sports Management</td>
<td>1.5</td>
</tr>
<tr>
<td>31</td>
<td></td>
<td>Talent Engagement &amp; Management</td>
<td>1.5</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td>Women in Management</td>
<td>1.5</td>
</tr>
<tr>
<td>33</td>
<td></td>
<td>WTO &amp; Business</td>
<td>1.5</td>
</tr>
</tbody>
</table>
### Term IV

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Scheme</th>
<th>Examination Scheme</th>
<th>Duration</th>
<th>Component Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L</td>
<td>LPW/PW</td>
<td>T</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specialization Electives*</td>
<td>1.5/3.0</td>
<td>-</td>
<td>9.0/18.0</td>
<td>2/3 hours</td>
</tr>
</tbody>
</table>

### Term V

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Scheme</th>
<th>Examination Scheme</th>
<th>Duration</th>
<th>Component Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L</td>
<td>LPW/PW</td>
<td>T</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specialization Electives*</td>
<td>1.5/3.0</td>
<td>-</td>
<td>9.0/18.0</td>
<td>2/3 hours</td>
</tr>
</tbody>
</table>

### Term VI

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Scheme</th>
<th>Examination Scheme</th>
<th>Duration</th>
<th>Component Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L</td>
<td>LPW/PW</td>
<td>T</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specialization Electives*</td>
<td>1.5/3.0</td>
<td>-</td>
<td>9.0/18.0</td>
<td>2/3 hours</td>
</tr>
</tbody>
</table>

* Refer to the section “Specializations” in this TES. The list of Specialization Electives from various academic areas is attached herewith.

L: Lectures, P/T: Practicals/Tutorial, C: Credits  
TEE: Term End Examination  
CE: Continuous Evaluation

### SPECIALIZATIONS

The Institute shall offer Major Specialization in the following areas:

1. Marketing
2. Finance
3. Human Resource Management
4. Operations Management
5. International Business
The actual number of specializations offered in the Programme shall depend on registration and available resources.

The students are required to take a minimum of 45 credit hours of elective courses from the list of the electives from the various areas of management. A student is required to take a minimum of 18 Credits of elective courses from areas mentioned above, to be eligible for major specialization in that area. Students opting for this programme need to essentially take a minimum of 12 Credits of elective courses from a basket of Information Management and Business Analytics for minor specialization. After fulfilling the minimum requirements for major and minor specialization, students can opt for any course from the overall pool, to complete the remaining 15 credits in the second year. While calculating credit hours of major & minor specializations, the courses should be mutually exclusive for meeting the credit requirements. The Institute allows only one Major and one Minor Area of Specializations. Two major specializations are not offered.

A pool/basket of specialization elective courses will be offered to the students for selection. A student is required to take a minimum of 9.0 credits of elective courses and a maximum of 18.0 credits of elective courses in each Term IV, V and VI and thus may balance the 45 credits of specialization elective courses. The list of specialization elective courses selected by each student will be finalized and notified before the commencement of Term IV. The actual number of courses offered in a particular year shall depend on registration and available resources. An elective course will be offered only if a minimum number of students opt for it.
SPECIALIZATION ELECTIVES

Given below is the list of Specialization Elective courses. The actual number of courses offered in a particular year shall depend on registration and available resources. An elective course will be offered only if a minimum number of students opt for it.

SPECIALIZATION: FINANCE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Bank Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Behavioral Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Behavioral Finance</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Derivatives and Risk Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Direct and Indirect Taxes</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Econometrics for Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Economic Analysis of Asset Prices</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Economics of Bond and Derivatives Markets</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Financial Modeling Using Spreadsheets</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Financial Statement Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Insurance</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Investment and Portfolio Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Investment Banking</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Management Control Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Management of Financial Services</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Mergers and Acquisitions</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Project Planning and Control</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Stochastic Calculus in Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Cost Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Financial Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Valuation</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Wealth Management</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Working Capital Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### SPECIALIZATION: INTERNATIONAL BUSINESS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>International Trade</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Export-Import Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Foreign Trade Policy, Procedures and Documentation</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Global Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Business</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Business Laws</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Logistics</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Market Research</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Organizations, Regional Blocks &amp; WTO</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Technology Transfer and Multinational Enterprises</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### SPECIALIZATION: MARKETING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Advanced Marketing Research</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Business-to-Business Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Consumer Behaviour</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Contagion Marketing</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Customer Relationship Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Digital Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Direct Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Entertainment Marketing</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Events Management</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Franchising</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Integrated Marketing Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Internet Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Managing Corporate Relations</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Marketing Models</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Marketing of High-Tech Products</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Marketing Research</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>New Product Development</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Qualitative Research Methods in Marketing</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Retail Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Return on Marketing Investment</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Rural Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Sales &amp; Distribution Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Services Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>Course Code</td>
<td>Courses Name</td>
<td>Credit</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>XXXX</td>
<td>Societal Marketing</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Brand Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Marketing</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**SPECIALIZATION: HUMAN RESOURCE MANAGEMENT**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Compensation Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Competency Mapping and Assessment</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Employee Relationship Management</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Global Business Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Human Resource Analytics</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Instruments For Human Resource Management</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Human Resource Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Labour Legislation in India</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Organization Development &amp; Change Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Performance Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Recruitment and Selection</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Research in Human Resource Management</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Human Resource Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Training and Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SPECIALIZATION: OPERATIONS MANAGEMENT**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Data Analytics and Data Mining</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Data Analytics and Visualization</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Decision Modelling and Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Descriptive Analytics</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Infrastructure Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Lean Six Sigma</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Logistics Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Operations Management in Services</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Operations Strategy &amp; Competitiveness</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Predictive Analytics</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Statistical Techniques in Quality Control</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Outsourcing</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Supply Chain Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Technology Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Total Quality Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>World Class Manufacturing</td>
<td>1.5</td>
</tr>
</tbody>
</table>
### SPECIALIZATION: INFORMATION MANAGEMENT AND BUSINESS ANALYTICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Business Intelligence</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Business Process Re-engineering</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>E-Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Enterprise Resource Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Information Technology Strategy for Business</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>InfoSec for Governance, Risk Management and Compliance</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>IT Infrastructure and Process Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Software Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Technology Enabled Operations Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Telecommunications Management</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Big Data</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Business Analytics &amp; Data Visualisation</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Data Mining and Data Science</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Machine Learning &amp; Artificial Intelligence</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Python and R</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Non-Specialization Elective Courses. The under mentioned Electives are not considered for any specializations.

### AREA: STRATEGIC MANAGEMENT AND ENTREPRENEURSHIP

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Business Development Strategies</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Case Study of Entrepreneurs</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Corporate Governance</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Creativity and Innovation</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Doing Business with Government</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Management of Strategic Alliance</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Management of Technology and Innovation</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Managing a Growing Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>New Age Strategies</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Seminar on Start-up Finance</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Social Entrepreneurship</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Application of Game Theory</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Management of an Innovation</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategizing Corporate Social Responsibility</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategy Execution</td>
<td>1.5</td>
</tr>
</tbody>
</table>
### AREA: ECONOMICS & FINANCE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Economic Thought</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Economics of Business Strategy</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Economics of Innovation and Entrepreneurship</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Public Policy Analysis</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### AREA: GENERAL MANAGEMENT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses in General Management</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Dissertation</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Management Consulting</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Multivariate Data Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Qualitative Research</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### AREA: ORGANIZATIONAL BEHAVIOUR & COMMUNICATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Courses Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Coaching and Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Management of Co-operation and Conflict</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Negotiation Skills</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>People Management and Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Personality Development &amp; Business Etiquette</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Power, Influence and Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Psychometric Testing</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Stress Management</td>
<td>1.5</td>
</tr>
<tr>
<td>XXXX</td>
<td>Transactional Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>XXXX</td>
<td>Understanding and Managing Cultural Diversity</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Elective Courses Considered for More than One Specialization Area:** The following electives are being considered under more than one Area of specialization as shown below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Area of Specialization</th>
<th>Additional Area of Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>International Marketing</td>
<td>Marketing</td>
<td>International Business</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Finance</td>
<td>Finance</td>
<td>International Business</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Human Resource Management</td>
<td>Human Resource Management</td>
<td>International Business</td>
</tr>
<tr>
<td>XXXX</td>
<td>Enterprise Resource Planning</td>
<td>Information Management</td>
<td>Operations Management</td>
</tr>
<tr>
<td>XXXX</td>
<td>Business Process Re-engineering</td>
<td>Information Management</td>
<td>Operations Management</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------</td>
<td>------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>XXXX</td>
<td>Technology Enabled Operations Management</td>
<td>Information Management</td>
<td>Operations Management</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Marketing</td>
<td>Marketing</td>
<td>Strategic Management &amp; Entrepreneurship</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Financial Management</td>
<td>Finance</td>
<td>Strategic Management &amp; Entrepreneurship</td>
</tr>
<tr>
<td>XXXX</td>
<td>Strategic Human Resource Management</td>
<td>Human Resource Management</td>
<td>Strategic Management &amp; Entrepreneurship</td>
</tr>
<tr>
<td>XXXX</td>
<td>Global Management</td>
<td>International Business</td>
<td>Strategic Management &amp; Entrepreneurship</td>
</tr>
<tr>
<td>XXXX</td>
<td>Business Process Re-engineering</td>
<td>Information Management</td>
<td>Strategic Management &amp; Entrepreneurship</td>
</tr>
<tr>
<td>XXXX</td>
<td>Enterprise Resource Planning</td>
<td>Information Management</td>
<td>Strategic Management &amp; Entrepreneurship</td>
</tr>
<tr>
<td>XXXX</td>
<td>Management Consulting</td>
<td>General Management</td>
<td>Strategic Management &amp; Entrepreneurship</td>
</tr>
<tr>
<td>XXXX</td>
<td>Global Business Leadership</td>
<td>Human Resource Management</td>
<td>International Business</td>
</tr>
<tr>
<td>XXXX</td>
<td>International Logistics</td>
<td>International Business</td>
<td>Operations Management</td>
</tr>
<tr>
<td>XXXX</td>
<td>Business Intelligence</td>
<td>Information Management</td>
<td>Business Analytics</td>
</tr>
</tbody>
</table>
SUMMER PROJECT/INTERNSHIP//INTERNATIONAL IMMERSION:

Training is an integral part of learning. It makes them industry ready to face for real world problems. Students will be placed at various industries at the end of second year and under supervision and guidance of respective industry personnel. At the end of the 3rd Term (MBA Phase), all students will have to do summer project/internship of 8-10 weeks with an industrial, business or service organization. The conditions of successfully completing the programme shall not be deemed to have been satisfied unless a student does summer project/internship.

Alternatively, the students can go for International Immersion. The duration for such immersion will be 5-7 weeks followed by 2-3 weeks for preparing details report so as to maintain the overall period of 8-10 weeks. The immersion can also be done in form of undergoing a course in a foreign country for 5-7 weeks.

Each student shall be required to submit a project report to the Institute for the work undertaken by him/her during this period within two weeks of the commencement of the 4th Term (MBA Phase). S/he will also have to submit a copy of the report to the organization guide. The reports are assessed by a panel of faculty members. The reports are graded like any other course and also reflected in the Grade Reports.
5. Academic Rules and Regulations
ACADEMIC REGULATIONS FOR INTEGRATED BACHELOR OF TECHNOLOGY (COMPUTER SCIENCE AND ENGINEERING) – MASTER OF BUSINESS ADMINISTRATION UNDER THE FACULTY OF MANAGEMENT

SHORT TITLE, APPLICATION AND COMMENCEMENT:

a) These regulations shall be called as Academic Regulations for Integrated Bachelor of Technology (Computer Science and Engineering)-Master of Business Administration, Under The Faculty of Management.

b) They shall apply to all students admitted in five year Integrated Bachelor of Technology (Computer Science and Engineering)-Master of Business Administration Programme under Nirma University.

c) They shall come into force from the date of their publication in the notification with the approval of Board of Governors, Nirma University.

DEFINITIONS: IN THESE REGULATIONS, UNLESS THE CONTEXT OTHERWISE REQUIRES:

<table>
<thead>
<tr>
<th>Programme</th>
<th>Integrated Bachelor of Technology (Computer Science and Engineering)-Master of Business Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>A constituent subject of the programme</td>
</tr>
<tr>
<td>Phase -I</td>
<td>The first three academic years of the programme i.e. FIRST, SECOND and THIRD year (also referred as Technology Phase)</td>
</tr>
<tr>
<td>Phase II</td>
<td>The FOURTH and the FIFTH academic year of the programme (also referred as Management Phase)</td>
</tr>
<tr>
<td>Term/Trimester</td>
<td>Duration for studying a course</td>
</tr>
<tr>
<td>Registration</td>
<td>Procedure for enrolment in a course / programme</td>
</tr>
<tr>
<td>Letter Grade</td>
<td>A letter associated with a particular performance level of the students. A qualitative meaning and a numerical index are attached to each grade.</td>
</tr>
<tr>
<td>Credit</td>
<td>A numerical figure associated with a course. On passing the course, the students earn this “credit”</td>
</tr>
<tr>
<td>Regular Approval</td>
<td>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 Head of the Institution is necessary for seeking approval for the absence. The approval of HoI so obtained will be referred as Regular Approval.</td>
</tr>
<tr>
<td>Granting a Term</td>
<td>This expression is used to indicate whether the performance of a student in a Term is up to a minimum acceptable standard which permits the student to promote to the next Term without having to repeat the complete study of a course.</td>
</tr>
<tr>
<td>GT</td>
<td>Term Granted</td>
</tr>
<tr>
<td>NT</td>
<td>Term not granted</td>
</tr>
</tbody>
</table>
Appel Committee - Consisting of Director, Dean, HOD concerned, and two senior faculty members nominated by the Director.

SHORT FORMS
The Institute - Institute of Technology for Phase I and Institute of Management for Phase II
The Director - The Director, Institute of Technology for Phase I and The Director, Institute of Management for Phase II
Faculty - Faculty of Management
The Dean - The Dean, Faculty of Technology for Phase I and The Dean, Faculty of Management for Phase II
CE - Continuous Evaluation
TEE - Term End Examination
IR - Initial Registration
RPR - Repeat Registration
RS - Repeat Registration for Studying all components of a course
RL - Repeat registration for LPW
RER - Re - examination Registration
REC - Re-examination Registration for continuous evaluation component of a course
RET - Re-examination Registration for Term End Examination of a course
TGPA - Term Grade Point Average
CGPA - Cumulative Grade Point Average
R.BTM - Regulation of Integrated Bachelor of Technology (Computer Science and Engineering)-Master of Business Administration programme

R.BTM.1. THE PROGRAMME

1.1. Structure: It is a five year integrated degree programme in Technology and Management, an innovative programme that combines the undergraduate and post-graduate programmes – B. Tech (CSE) and MBA respectively. The first three years (Phase I) comprise of 9 terms (three terms in each year). The subsequent two years (Phase II) comprise of six terms (three terms in each year). Each term is for a duration of approximately 12 weeks. The medium of instruction of the programme is English.

R.BTM.2. ELIGIBILITY OF ADMISSION

The candidates seeking admission in the first year of Integrated B. Tech (CSE)-MBA shall have passed the HSC or equivalent examination with minimum 60% marks along with Physics, Chemistry and Mathematics.

Merit for the admission: The method of determining the merit for the admission will be decided by the Director General, Nirma University from time to time depending upon the requirement.

R.BTM.3. CATEGORIES OF COURSES: The following categories of courses are offered in the programme:
3.1. **Credit Courses**: These are courses that have been considered for determining the students’ academic performance in the programme. In order to qualify for the degree, the students are required to complete successfully prescribed credits. They are included in the schedules of various Terms/trimesters as per the Teaching Scheme in force from time to time. There are two types of Credit Courses; (1) Core Courses and (2) Elective Courses.

3.2. **Core Courses**: These are the compulsory courses as included in the Teaching Scheme. Elective courses are explained in para 3.3.

3.3. **Elective Courses**: There will be four types of Elective Courses:

   3.3.1 **For Phase I**:
   
   a. **Technology Electives**: These are the courses related to technology and shall not be considered against a particular specialization area.

   3.3.2 **For Phase II**
   
   a. **Specialization Electives**: These are the courses of different specialization areas. A student needs to study a minimum 18 Credit courses to get Major specialization in an area and 12 Credit courses to get Minor specialization in an area. In addition, a student can opt for one additional course (credit course) in any specialization area over and above the minimum credit requirements mentioned above.
   
   b. **General Electives**: These are the courses of general nature offered in the first year of phase-II and shall not be considered for a particular specialization area mentioned above.
   
   c. **Non-Specialization Electives**: These courses are not covered under a particular area of specialization and offered during the second year of phase II.

3.4. **Supplementary Courses**: They are offered to the students in phase I to provide an additional exposure to certain skills/knowledge. They are not included in the regular schedule of the Terms. No credits are assigned to these courses. The concerned Dean is empowered to decide these courses, their curriculum, teaching and examination schemes, passing standards and such other matters as may be necessary for efficient conduct of the courses.

   Hereafter, the Core and Elective Courses will be referred to simply as “courses”. Enrichment courses and Supplementary courses will be specifically mentioned.

3.5. **Summer Project(s)/Internship(s)**: All students will have to complete summer project(s)/internship(s) of with a social or an industrial or business or service organization for a duration as prescribed in the Teaching and Examination Scheme.

3.6. **Audit Courses**: These are the optional courses that can be taken by students in phase II for value addition. Audit courses are not evaluated for the purpose of assessing the performance of the students and no grade is awarded for these courses.

**R.BTM.4. Teaching and Examination Scheme**

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

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

The courses offered in each programme (trimester-wise) and their teaching schemes are given
in the trimester schedules. The schemes show the various courses, distribution of teaching hours, course component/s, examinations, component weights and credits allotted to each course. The teaching scheme will include, if necessary, summer vacation training in industry / professional / research organizations.

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

R.BTM.5. 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.

5.1. Lecture: Teaching learning processes conducted in real and virtual classrooms with various multi media aids.

5.2. Laboratory Work/Project Work: The students will be engaged in research or Practical Work pertaining to a course.
   a) This is referred as 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.

5.3. Term Assignment: 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, seminar, library sessions etc.

5.4. Tutorial: Lecture Sessions will be supported by Tutorial Sessions in phase I.

R.BTM.6. ASSESSMENTS AND EXAMINATIONS

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

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>EXAMINATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>Term End Examination (TEE)</td>
</tr>
<tr>
<td>Continuous Evaluation</td>
<td>CE examination. CE may include written examination/s, Term Assignments (TA) Examination, Quizzes/Test, Assignment and Projects (Group/individual).</td>
</tr>
<tr>
<td>Laboratory/Project Work</td>
<td>LPW examination</td>
</tr>
</tbody>
</table>

6.2 The detailed scheme of the CE will be notiﬁed by the concerned Dean before commencement of the academic year and the same will be notiﬁed to the students by way of course outline of each course before the commencement of each term. The TEE covers the entire syllabus of the course.
6.3 Examiners: All assessments will be carried out by the concerned faculty or Examiners as appointed by the concerned Dean.

R.BTM.7 COURSE COORDINATOR and ADVISOR

Normally courses will be offered term-wise as given in the teaching scheme. The institute may offer certain course/s of a term in all three terms of an academic year in order to help students to pursue their study more expeditiously.

The Dean may appoint faculty members for the following designations wherever required. 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 term) – to look after all matters, at the department level, regarding Registrations and Re-Registrations of courses and also to provide guidance and counselling to students regarding these issues.

R.BTM.8 REGISTRATION IN COURSES

8.1 Registration:

There are two categories of registration, Initial Registration (IR) and Repeat Registration (RPR). All categories of registration will collectively be referred to simply as Registration. Individual categories will be referred by their abbreviation. All Registration, wherever applicable, will be subject to the availability of courses. Registration will be done for each course.

8.2 Categories of Registration:

a) 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 Term are to be done for all courses of that Term 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 Term will be considered as having been registered in that Term.

b) Repeat Registration (RPR) for course and examination:

i) Repeat Registration (RS)

The student whose Term is not granted for any registered course (R.BTM.10) will have to repeat the study of that course. Student will have to seek fresh registration for this purpose.

The category of such registration will be as follows:
RS - This category will imply regular attendance to study all components (i.e. Lecture, CE, LPW as applicable) and appearing at all examinations thereof.

ii) Repeat Registration for Examination (RER):

This registration is necessary for appearing again in a particular examination of a course. It will not involve regular attendance for studying the course.

Repeat Registration for Examination will be in the following categories.

(a) Repeat Registration for the Examinations of Continuous Evaluation component of a course (REC)

(b) Repeat Registration for the Examination of Laboratory/Practical(Project)Work (RL)

(c) Repeat Registration for Term End Examination of a course (RET).

c) 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 concerned Dean will issue appropriate orders for processing the application, including scrutiny, verification and final orders.

d) Simultaneous Registration and Repeat Registration in Different Categories:

(i) Terms will be registered in chronological order.

(ii) Partial registration in the scheduled courses of a term is not permitted.

(iii) a student who becomes eligible for IR registration in the next year must first register for all RER and RPR registrations, as applicable in his/her case

8.3 GRADES

a. Performance Levels: The Performance level of the student in any course will be adjudged in terms of the letter grades, and grade points. Table – 1 provides significance of letter grades along with its equivalent grade points.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Qualitative Meaning</th>
<th>Equivalent Grade</th>
</tr>
</thead>
</table>

Table 1: Letter Grades and their significance
R.BTM.9 SCOPE OF EXAMINATIONS AND ASSESSMENT

The scope of examinations and the method of assessment are as follows:

9.1 Assessment:

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

9.2 Continuous Evaluation – CE (IR & RPR Registration):

The learning of the students will be continuously assessed during the Term and given marks. Viva-voce examination may be included in the assessment. The total marks of components of continuous evaluation will be aggregated based on their *inter se* weights to give the overall percentage of marks in the CE examination.

If a student fails in CE, the student will not be permitted to appear in TEE of that course and the student will have to seek RC.

9.3 LPW Examination: (IR and RPR)

All assignments in Practical Work will be continuously / periodically assessed (as applicable) during a Term. Viva-voce examination may be included in the assessment. 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 TEE of that course and the student will have to seek fresh registration as RL in subsequent term, if the student fulfils the condition of granting the term (*R.BTM.10*)

9.4 Term End Examination TEE [IR & RPR Registration]:

<table>
<thead>
<tr>
<th>(G)</th>
<th>(GO)</th>
<th>Point</th>
<th>(g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Excellent</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Creditable</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>Very Good</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>Satisfactory</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>IF</td>
<td>Interim Fail</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>FF</td>
<td>Fail</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
The expression ‘Term End Examination’ refers to the written Examination of a course taken at the end of a Term. The TEE of a course will cover the entire syllabus of the course.

### 9.5 Supplementary Examination (SPE)
(RPR registration, grade IF in TEE)

The Institute may decide to hold a Supplementary Examination (SPE) after declaration of the result of TEEs conducted for IR courses at the end of each Term for the students who have obtained grade IF (O) and/or IF(T) in a course. Such students will have to seek RPR registration to take up SPE.

The student, who could not entirely study a course during the regular term and repeat the course like fresh students and fail in the TEE in the first attempt, may be given an opportunity to appear in the Supplementary Examination and be treated at par with students registered under IR. It means students registered under RS category also be given a chance to appear in the Supplementary Examination in addition to students under IR.

In addition, opportunity should be given to the students to appear in the Supplementary Examination who cleared all the courses and have earned the requisite number of credits but could not be graduated due to failure in TEE (IR/RPR) in one course.

### 9.6 Schedules of TEE and SPE:

TEEs of all courses of the programme, as per the Teaching Scheme, will be held at the end of each Term. The Supplementary Examinations (SPE) will be held after the TEEs of the respective Term as decided by the concerned Institute.

### 9.7 Absence in Examination

Absence in any examination with or without Regular Approval will be assigned Zero [0] marks and appropriate grade. However, if a student fails to appear in TEE of any course due to extraordinary reasons/circumstances such as self-hospitalization, complete physical immobility, or death of immediate family member (parents or siblings only) may be permitted to take up a Make-up Examination subject to submission of an application along with relevant valid documents and approval from the concerned Dean.

### 9.8 Open Book/Take home Examination

If the course coordinator/instructor desires that there should be an open book/Take home examination in a course in any TEE. Prior approval of the Dean will be necessary for the same. This method of examination must be announced to the students through the Course Outline before the commencement of the respective course.

### R.BTM.10 GRANTING OF TERM

10.1 The Term will be granted course-wise.
10.2 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.

10.3 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.

10.4 The student who is given NT category will not be permitted to appear in TEE of the concerned course. S/he will also be given grade FF in that course.

R.BTM.11 GRADING SYSTEM

11.1 CE, LPW and TEE/SPE: Grades for the CE, LPW and TEE examinations will be given on the basis of the percentage marks obtained by the student in the respective examinations. In the normal course, a student (IR, RPR) and category GT will appear for TEE after his CE and LPW examination, in the same Term. Table 2 shall be referred for converting percentage marks into corresponding Grades (G) for CE, LPW and TEE/SPE.

<table>
<thead>
<tr>
<th>% marks</th>
<th>Grade(G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 and above</td>
<td>A+</td>
</tr>
<tr>
<td>80-89</td>
<td>A</td>
</tr>
<tr>
<td>70-79</td>
<td>B+</td>
</tr>
<tr>
<td>60-69</td>
<td>B</td>
</tr>
<tr>
<td>50-59</td>
<td>C+</td>
</tr>
<tr>
<td>40-49</td>
<td>C</td>
</tr>
<tr>
<td>Less than 40</td>
<td>IF</td>
</tr>
</tbody>
</table>

11.2 Course Grade
Course grade will be given only when the student meets the standards of passing all components and the course as referred in R.BTM 13.1 and R.BTM 13.2.

Marks of TEE/ 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 3. The cut off percentages of relative grading will be decided subject to the guidelines prescribed by the Academic Council.

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

11.3 The Institute uses absolute grading system in case the grading is performed for 30 or less than 30 students. The following Table – 3 provides the conversion of marks in letter grades.

<table>
<thead>
<tr>
<th>% marks</th>
<th>Grade (G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 and above</td>
<td>A+</td>
</tr>
<tr>
<td>80-89</td>
<td>A</td>
</tr>
</tbody>
</table>
### 11.4 Absolute grading is followed for grading all courses that do not have TERM END EXAMINATION OR Term End Examinations, Credit based Internships, Enrichment Courses, Field Courses and for all examinations of RPR/RER category.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>70-79</td>
<td>B+</td>
</tr>
<tr>
<td>60-69</td>
<td>B</td>
</tr>
<tr>
<td>50-59</td>
<td>C+</td>
</tr>
<tr>
<td>Below 50</td>
<td>IF</td>
</tr>
</tbody>
</table>

### 11.5 GRADE IN TEE/SPE

In the normal course, a student (IR, RPR) and category GT will appear for TEE after his CE and LPW examination, in the same term. Grade for the performance in TEE will be given on the basis of the percentage marks obtained by the student. Table 2 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:

<table>
<thead>
<tr>
<th>Performance</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Fail</td>
<td>IF</td>
</tr>
<tr>
<td>(ii) Absence</td>
<td>IF</td>
</tr>
</tbody>
</table>

Notwithstanding anything contained in terms of giving 'IF' grade as shown in (ii) in the table above, the Dean concerned will scrutinize the genuineness about remaining absence in Term End Examination through Appeal Committee and if the Dean, 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.

The student of category (i) or (ii) AS ABOVE (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 ABOVE, The student who obtains grade IF in SPE will be allowed to appear in three consecutively available subsequent TEEs of the concerned course. The criteria for giving grades in these three attempts will be the same as given ABOVE. However, grade IF in the final attempt will be converted into grade FF.

### R.BTM.12 INTERPRETATION OF GRADES

12.1 Grade C+ is the minimum for passing a course. Grade C is the minimum for passing a component of a course.

12.2 Grade FF:
(i) If this grade is given because of NT (the student will have to seek RS registration respectively for repeat study of the course.
(ii) If the grade FF is given due to failure in the final admissible attempt in TEE, the student will have to seek RS registration for repeat study.

12.3 Grade IF: This is an interim fail grade given in CE, TEE and overall fail in a course, as under:
<table>
<thead>
<tr>
<th>Performance</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail in CE**</td>
<td>IF(C)</td>
</tr>
<tr>
<td>Fail in TEE/SPE</td>
<td>IF(T)</td>
</tr>
<tr>
<td>Fail in LPW</td>
<td>IF(L)</td>
</tr>
<tr>
<td>Overall Fail in a course*</td>
<td>IF(O)</td>
</tr>
</tbody>
</table>

* 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 term, depending upon his/her choice. In such case, he/she will also reappear in TEE.

R.BTM.13 PASSING STANDARDS

13.1 PASSING STANDARDS: The standards of passing a component/ course/ programme are given below:

- COMPONENT - Min C in each component examinations i.e., CE, LPW and TEE/SPE
- COURSE - Min C+ Grade
- PROGRAM -Min C+ Grade in each credit course with prescribed credits of the program and Min CGPA 6.0

The student who has once passed a course will not be allowed/ permitted to reappear in any examination of that course.

Notwithstanding anything contained above, so far as the University Elective courses are concerned the minimum course grade for passing will be “C” instead of “C+” and here the grade “C” stands for “Average”.

13.2 FAILURE

Student not satisfying the criteria of Passing will be considered as having failed in the examination/ component/ course/ programme. The appropriate grade will be assigned to Failure Component/Course as per R.BTM 12.3

13.2.1 A student who is awarded IF (T) and/or IF (O) may be allowed to appear in SPE of not more than EIGHT course in a year during the phase I to improve this grade. Similarly, a student who is awarded IF (T) and/or IF (O) may be allowed to appear in SPE of not more than FIVE course in a year during the phase II to improve this grade.

13.2.2 Criteria for Successful Completion of a Year:

For successful completion of each year, a student shall fulfil the following conditions:

a) S/he should not obtain “IF/FF” grade in any course.
b) S/he should not obtain CGPA less than 6.0

13.2.3 Conditional Promotion (CP) to Subsequent Year:
If a student is unable to meet the academic standards at the end of the year, s/he can be given conditional promotion to the next year provided s/he meets the following conditions excluding Summer Internship(s) and Supplementary courses:

a. S/he has grade “IF (C) or IF (O) or IF (T) or FF” in not more than TWO courses in any Term.

b. S/he has grade “IF (C) or IF (O) or IF (T) or FF” in not more than THREE courses at any given point of time in the course of study.

However the condition of R.BTM 13.2.8 shall be made applicable while promoting to 4th year.

13.2.4 A student who is conditionally promoted (CP) to the next year is required to meet the minimum academic standards of successful completion of that year by repeating required number of courses during the next year. Such students will have the following options to repeat the minimum academic standards:

(i) to repeat TEE along with the regular offering of the programme in the subsequent academic year

OR

(ii) to repeat both CE and TEE along with the regular offering of the programme in the subsequent academic year

In such case, student will have to apply for a Repeat Registration (RPR) as per the applicable category of RPR. In case, s/he opts to repeat CE then student has to repeat TEE also.

13.2.5 If a student gets IF(C) in a course, then s/he will have to appear in CE and TEE by registering for REC and RET respectively along with the regular offering of the programme in the next academic year in order to successfully complete such courses.

13.2.6 If a student gets FF in a course, then student will have to register for RS and attend all the components (as referred in R.BTM.5) of that course along with the regular offering of the programme in the next academic year and appear in CE and TEE in order to successfully complete such courses.

13.2.7 Failure in Promotion: If a student fails to meet the requirements of promotion to the next year, he/she will not be allowed to pursue the next year unless he/she meets with the conditions as an Ex-student.

13.2.8 Promotion from phase I to phase II:
A student is required to complete all requirements of the phase I (first three years) successfully in order to be promoted to the phase II of the programme.

13.2.9 A student who has IF (O or T or C or L) or FF for any course(s) at the end of the third year after having appeared the term end SPE held for ninth term, s/he may be given an opportunity to improve and meet the academic passing standards by repeating the study of such course(s) before the commencement of the phase II. In these cases, the student may have an option to repeat only TEE or CE and TEE both. A student is allowed to reappear for a maximum of FOUR courses. The student must register for the applicable category of RPR in all such cases. The student who has once passed an examination will not be allowed to appear at it again.

R.BTM.14 PERFORMANCE LEVELS
The performance level of the students in credited courses at different stages of the study is given by the following measures.
14.1 **Term GPA (TGPA):** The Term GPA shall be computed by multiplying the earned course grade points by the corresponding course credit and the resultant value shall be divided by the total credits of the Term.

14.2 **Cumulative Grade Point Average (CGPA):** Similarly, GPA of a year and Cumulative Grade Point Average (CGPA) at any stage of study shall be computed by multiplying the grade points of the earned courses till that point of time by the corresponding course credits and the resultant value shall be divided by the total credits of the earned courses.

14.3 **Programme GPA (PGPA):** Programme GPA refers to the CGPA of the entire Programme, on completion of the Programme. Course Grade, Credits, Grade Points and TGPA/CGPA will be mentioned in the term Grade Report.

14.4 **Class and Percentage (%) Marks:** In case, there is equivalence between GPA values and Class / % marks is desired, the same can be obtained as given below: % marks = (GPA – 0.50) * 10

<table>
<thead>
<tr>
<th>GPA Value</th>
<th>Percentage</th>
<th>Equivalent Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.00 to 6.49</td>
<td>55% to 59%</td>
<td>Second</td>
</tr>
<tr>
<td>6.50 to 7.49</td>
<td>60% to 69%</td>
<td>First</td>
</tr>
<tr>
<td>7.50 and above</td>
<td>70% and above</td>
<td>First with Distinction</td>
</tr>
</tbody>
</table>

**R.BTM.15 AWARD OF DEGREE**

15.1 To qualify for the award of “INTEGRATED BACHELOR OF TECHNOLOGY (COMPUTER SCIENCE AND ENGINEERING)-MASTER OF BUSINESS ADMINISTRATION” degree, a student is required

a. to complete all requirements of the programme successfully with a minimum CGPA of 6.0.
b. to successfully complete the prescribed credits of the programme as specified in the Teaching and Examination Scheme.
c. to successfully complete Supplementary Course(s) requirement as specified in the Teaching and Examination Scheme with a minimum grade ‘satisfactory’. If a student gets ‘unsatisfactory’ grade, s/he is required to improve the Supplementary Course(s) grade in the scheme as prescribed by the CONCERNED Dean.

**R.BTM.16 CANCELLATION OF ADMISSION**

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

(i) Failure to meet the academic requirements for the award of degree within 6 years from the date of admission to the programme.

(ii) Failure to earn requisite credits and CPI min 6.00 to pass the programme within a period (after admission to the programme), within 6 years from the date of admission to the programme.

(iii) The student, whose admission is so cancelled, can appeal to the Appeal Committee. The committee may grant an extension up to three additional trimesters for the deserving cases, provided the student gives a viable assurance to make up the shortfall within that period.

Notwithstanding anything contained above, the President, Nirma University may consider the cases of such students falling under the 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.
President, Nirma University will consider such appeal on the recommendation of the Appeal Committee prescribed under the regulations for the purpose and after considering genuineness of the case may give ONE additional attempt to the student concerned to clear the remaining course.

R.BTM.17 MAXIMUM PERIOD FOR PROGRAMME COMPLETION

Notwithstanding anything else, the student has to clear all requirements of the programme maximum within seven and half years.

**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, Policies
(For reference purpose only)

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.BTM 16 – 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.

____________________________                                    ______________________________
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
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.

[P.T.O.] 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. 2020-21)

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. 2020-21)

**UNDERTAKING (Granting of Term)**

I ____________________________ Roll No. ___________________ studying 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, Nirma University 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.BTM.10 GRANTING OF TERM**

10.5 The Term will be granted course-wise.

10.6 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.

10.7 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.

10.8 The student who is given NT category will not be permitted to appear in TEE of the  
concerned course. S/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
UN D E R T A K I N G  ( C a n c e l l a t i o n  o f  A d m i s s i o n )

R.BTM.16 CANCELLATION OF ADMISSION

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

(i) Failure to meet the academic requirements for the award of degree within 6 years from the date of admission to the programme.
(ii) Failure to earn requisite credits and CPI min 6.00 to pass the programme within a period (after admission to the programme), within 6 years from the date of admission to the programme.

(iii) The student, whose admission is so cancelled, can appeal to the Appeal Committee. The committee may grant an extension up to three additional trimesters for the deserving cases, provided the student gives a viable assurance to make up the shortfall within that period.

Notwithstanding anything contained above, the President, Nirma University may consider the cases of such students falling under the 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.

President, Nirma University will consider such appeal on the recommendation of the Appeal Committee prescribed under the regulations for the purpose and after considering 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 ____________________
UNDEARTAKING (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 __________________________________________ 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, whichever is not applicable)

_________________________________________  __________________________
Name of the student  Signature of the Student
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.
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.