ST. JOSEPH UNIVERSITY INTANZANIA

PROSPECTUS FOR ACADEMIC YEAR 2021-2022

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DAR ES SALAAM, TANZANIA

PROSPECTUS FOR ACADEMIC YEAR 2021- 2022

Published by the Office of the Deputy Vice Chancellor (Academic, Research and Public Engagement)
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ACRONYMS

ADoS	Assistant Dean of Students
ATM	Automated Teller Machine
BTC	Basic Technician Certificate
CCTV	Closed-Circuit Television
COE	Controller of Examination
CRDB	Cooperative Rural Development Bank
CSEE	Certificate of Secondary Education Examination
CVCPT	Committee of Vice Chancellors, Principals and Provosts in Tanzania
DMI	Daughters of Mary Immaculate
DoS	Dean of Students
DUCE	Dar es Salaam University College of Education
DVC-ARPE	Deputy Vice Chancellor – Academic, Research and Public Engagement
DVC-RMA	Deputy Vice Chancellor – Resource Management and Administration
FTC	Full Technician Certificate
GILT	Global Institutional Learning and Training
GPA	Grade Point Average
HoD	Head of Department
ICT	Information and Communication Technology
IET	Institution of Engineers Tanzania
IPT	Industrial Practical Training
ITAF	Innovation & Techno-Preneurship Acceleration Facility
IUCEA	Inter-University Council of East Africa
KCMC	Kilimanjaro Christian Medical Centre
MCT	Medical Council of Tanganyika
MD	Doctor of Medicine
MMI	Missionaries of Mary Immaculate
NACTE	National Council for Technical Education
NAMCT	Nursing and Midwifery Council of Tanzania
NBC	National Bank of Commerce
NHIF	National Health Insurance Fund
NMB	National Microfinance Bank
PT	Practical Training (in Industry)
SJCET	St. Joseph College of Engineering and Technology
SJCHAS	St. Joseph College of Health and Allied Sciences

SJUIT	St. Joseph University In Tanzania
SOSJUIT	Students Organization of St. Joseph University In Tanzania
TAPU	Tanzania Association of Private Universities
TBI	Technology-cum-Business Incubators
TCU	Tanzania Commission for Universities
TP	Teaching Practice
VC	Vice Chancellor

1. CHANCELLOR'S MESSAGE

Greetings from St. Joseph University In Tanzania (SJUIT). St. Joseph University In Tanzania is embedded with the most congenial atmosphere and boasts the students to excel in their academic pursuit. We are committed to provide facilities of the highest standard to kindle unfettered spirit of knowledge that broadens the mind sets and creates positive attitudes. Our conglomerate of educational institutions and experience further reiterates our stand for quality and intellectual stimulation. We inculcate moral, spiritual and ethical values in a student's personality, enriched with academic and administrative skills. This in turn instills the confidence to care for their families and the society at large. We provide a roadmap for development with fortitude to produce high level human resources and widen the domain of learning. GILT (Global Institutional Learning and Training) is a unique study abroad programme of SJUIT in which a student gets an opportunity to explore the nuances of higher education. All of our programmes are benchmarked with programmes in best University. By and large, our system of education has a global outlook and international exposure, produces a new breed of youths with practical and administrative skills needed for national development.

May God bless you!

Rev. Fr. Dr. J. E. Arul Raj,
Founder and Chancellor of the University

2. PRESIDENT OF THE UNIVERSITY COUNCIL'S MESSAGE

Welcome to St. Joseph University In Tanzania (SJUIT). St. Joseph University In Tanzania is committed to offer excellent quality education at the most affordable cost. Our University strives it's best to ensure that our programmes delivers the necessary skills to enable students develop a broad, integrated approach and become active participants in the socio-economic life of their country. We have a team of people dedicated to the service of the student's community, diligent staff, modern equipment and facilities to create a dynamic environment with an aim to enhance intellectual excellence. SJUIT is established to imbibe knowledge and honing skills to the youth and prepare them to face global challenges. Our curricula are designed to provide a unique opportunity to disseminate knowledge that is relevant and suitable to spearhead development. Our continuous high employability rate further augments the holistic development of our students and their potential. I have great pleasure to invite you to join our fold and the learning platform that promotes academic research and provides an opportunity for upward social mobility.

Thanks, and best wishes for future success

Dr. T. X. A. Ananth,
President-University Council

3. VICE CHANCELLOR'S MESSAGE

My hearty welcome to St. Joseph University In Tanzania (SJUIT). SJUIT provides conducive teaching, learning, research and social services environment. Since 2004, our institution has been contributing to this Country by providing quality employable graduates and through social service initiatives. As the needs of the 21st Century grow and change, SJUIT is ever evolving to be a leader in meeting and exceeding these demands.

We are offering Bachelor Degree programmes in various fields of Engineering and Technology; Bachelor of Science with Education degree; and Doctor of Medicine (MD) degree. We also offer Diploma and Certificate in various fields of engineering and technology, and in Midwifery & Nursing and Pharmaceutical Sciences. Our University is always committed to remain student-focused, innovative, nimble and flexible to meet the needs of our stakeholders.

I am happy to know about your keenness to join our University. You are entering into the arena of higher education where the future is full of opportunities and promises. We pay equal attention to all students. We provide them ample opportunities for giving expression on their inner literacy, creative and artistic talents, as well as sportsmanship. In order to pursue professional or career development to be successful you need to have all types of facilitated learning opportunities ranging from degree to formal course work, industrial practical training, teaching practice, village stay programme, hospital training and informal learning. An integrated approach covering all these vital aspects of learning is provided to our students due to the availability of high-level infrastructure facilities and well-experienced and qualified academic staff.

We wish our students to be well educated and well trained, and to become responsible citizens. You will be happy to know that the track record of achievements of our alumni is indeed commendable. Hundreds of our past students have proved their mettle in different spheres of industry. We are sure that in due course you will aspire towards joining the club of these select ones.

We are here to help you nurture and realize your dreams. So, let us work together and make your endeavor to build up your blooming career.

I wish you all the best.

Prof. E. Z. Opiyo,
Vice Chancellor

4. UNIVERSITY PROFILE

4.1 Introduction

St. Joseph University In Tanzania (SJUIT) is a full-fledged University accredited by the Tanzania Commission for Universities (TCU) in its order dated 21stDecember, 2011. The University is run by Sisters of Daughters of Mary Immaculate and Collaborators (DMI). The DMI and its Collaborators came to Tanzania as missionaries in the year 2003. The far-sighted vision of the Founder, the missionary zeal of DMI and the President of the University Council, by their invaluable service toiled hard to make the African Mission a success. Within a short span of time the small group has turned into a formidable big organization. The DMI and its Collaborators have spread its wings another East and Central African countries by establishing the DMI-St. Eugene University in Zambia, DMI-St. John the Baptist University in Malawi, Ethiopia and South Sudan and is to launch and ignite knowledge and spread its mission in Kenya.

The University has two campus colleges namely St. Joseph College of Engineering and Technology (SJCET) which is located at Mbezi-Luguruni, Dar es Salaam and St. Joseph College of Health and Allied Sciences (SJCHAS) which is located at Boko Dovya, Dar es Salaam. The College at the Mbezi-Luguruni offers Bachelor Degree in Engineering and Sciences and Mathematics Education and Ordinary Diploma programmes in various fields of Engineering.

The College at the Boko campus offers MD (Doctor of Medicine), Pharmaceutical Sciences and Nursing & Midwifery programmes. SJUIT has secured the position as the "UNIVERSITY OF CHOICE," when it comes to Engineering, ICT, Science Education, Medical and paramedical related studies in Tanzania. SJUIT is a University of choice, not just for students alone, but also for parents alike, as well as for the labour market. The graduates of St. Joseph University In Tanzania are well sought in the labour market for their mantle, discipline and dedication. SJUIT produces the leaders of the country who are well-known for their discipline, knowledge, skills, loyalty and integrity. SJUIT boasts of a team of professionals who dedicate their time in the development of the youth. The team

is drawn from local and international experts alike. The University has become a destination

"WHERE YOUR DREAMS ARE NURTURED."

SJUIT has well established Vision, Mission, Policies, Goals/objectives and guidelines for its governance. The goals, policies and guidelines conform to the mission and vision of the University.

4.2 Vision and Mission

Vision

To Spearhead Employable Education in Africa and Become part of its history

Mission

Capacity Building of Children of Africa to meet the Emerging Challenges happening in the World, by imparting Quality Employable Education with Discipline which leads to Self – Enlightenment and Development of the Nation.

4.3 Accreditation and Institutional Affiliation

All the Degree programmes and few diploma programmes offered by SJUIT are recognized by the Tanzania Commission for Universities (TCU). However, some Diploma and Certificate programmes offered by SJUIT are recognized by the National Council for Technical Education (NACTE).

The Degree and Diploma programmes in Engineering are recognized by the Engineers Registrations Board of Tanzania, whereas the Degree in Medicine is recognized by the Medical Council of Tanganyika. The Diploma in Pharmacy is accredited by the Pharmacy Council of Tanzania and the Diploma in Nursing is accredited by the Tanzania Nursing and Midwifery Council.

SJUIT is also a member of various Associations including the Inter-University Council of East Africa (IUCEA), Committee of Vice Chancellors, Principals and Provosts in Tanzania (CVCPT) and the Tanzania Association of Private Universities (TAPU).

4.4 University Governance

The daily operations of SJUIT are directed by the Vice Chancellor (VC), who works closely with the Deputy Vice Chancellor for Academic, Research and Public Engagement (DVC-ARPE), the Deputy Vice Chancellor for Resources Management and Administration (DVC-RMA), the University Bursar and College Principals. SJUIT is comprised of diverse community incorporating academic staff and students of different nationalities and cultural backgrounds.

5. STUDENTS WELFARE

5.1 Students Administration

Students' administration at the University is headed by the Dean of Students (DoS) who deals with students' governance and students' general welfare, including disciplinary matters, social and academic life in the University. The DoS is assisted by Assistant Deans of Students (ADoS) who are appointed for each campus college, and serve under the Office of Dean of Students. The Office of Dean of Students assists and guides students in their daily academic life issues/challenges so as to create a conducive learning environment.

The office of Dean of Students provide assistance to the services such as games and sports, advisory and counseling, student's disciplinary matters, health services and student's accommodation. DoS reports to the DVC-ARPE and DVC-RMA as appropriate.

5.2 Students Organization of the St. Joseph University In Tanzania

Most of students' governance and activities are organized by the Students Organization of St. Joseph University In Tanzania (SOSJUIT), which is an official representative Union of students of St. Joseph University In Tanzania in both campus colleges. All registered students are automatically members and enjoy all the rights and privileges granted to this body under its Constitution. Every student pays Tsh 10,000 annually as students' Organization fee.

The students' organization is established to contribute to the improvement of quality of academic and social life of students at the University campus colleges. It also fosters unity among them through establishment of a student's government (SOSJUIT) where students from both campus colleges converge and work together.It provides an effective linkage between students of both campus colleges and college management.

Apart from this, medical students are members of Tanzania Medical Students' Association (TAMSA) and pharmaceutical students are members of Tanzania Pharmaceutical Students' Association (TPSA). SOSJUIT encourages the extracurricular activities of the students, with a view to develop their personality and profession. Students are encouraged to make use of the Opportunities by enrolling themselves in various science and engineering and medical clubs, whose activities are guided and coordinated by academic staff members who have expertise in the respective fields.

5.3 SJUIT Student's By-Laws

SJUIT believes that the time for university education is mainly a period where the character of any individual is formed. Hence a lot of emphasis is placed on Students' by-laws in order to maintain a good teaching and learning environment. Such By-Laws are enacted to protect students and to protect the academic reputation of the University and its members. A SJUIT students' handbook which contains all By-Laws is provided to all students who are registered for any academic programme in SJUIT during their orientation programme conducted immediately after registration.

5.4 Students Participation

Class Representatives (CRs) and SOSJUIT Leaders are members in various decision-making bodies in the University. The aim for students' participation as class representatives is to enable students to take part in the decision-making process of the University.

5.4.1 Class/Course Committees

Every Course Committee consists of Course teacher and Class Representatives (CRs). Function of the committee is to have quality control and to improve the teaching and learning process. It enables the students and staff to identify the problems faced by students and paves a path to clarify and to adhere to the academic regulations which in turn helps the students in achieving course learning outcomes.

5.4.2 Students Disciplinary Committee

A panel of members from the respective college with the inclusion of one member from SOSJUIT constitute Students Disciplinary Committee. It exercises disciplinary action against those who violate University Regulations and Students By-Laws.

5.4.3 University Examination Board/Senate/Council

SOSJUIT Leaders represent students in these higher University decision-making organs.

5.5 Students Accommodation

A decent, safe and affordable accommodation is guaranteed for all students, especially for girl students and to the students with special needs. A nominal fee is collected on annual basis.

Private hostels are available in the nearby areas of Mbezi and Boko, which can accommodate students at reasonable rates. An official survey made by the Office of Dean of Students indicates the availability of sufficient number of hostels and private owned houses in the nearby areas of the University campus colleges.

5.6 Advisory/Counseling Services

Assistant Dean of Student's (ADoS) along with departments' staff advisors assists students in planning their courses of study and render counseling on the academic programme. The Heads of the Department will allot limited number of

students to every academic staff of the Department who shall becalled as the 'Students' Academic Adviser' for that set of students throughout the year.

The Students' Academic Adviser shall advise their studentson academic and social matters, and monitor the progress of the student in all the courses taken by him/her, and also they will check the attendance of the students and counsel them periodically. The Students' Academic Advisers also discuss with and inform the parents/guardians/sponsors about the progress of the students.

5.7 Catering Services

Catering services are available on payment to both staff and students at the University premises. Number of canteens and restaurants are also available in close proximity of each campus college.

5.8 Games and Sports

A health body and mind require a balanced diet and physical exercises. Both Mbezi and Boko campuses have sporting facilities such as track field, soccer pitch, basketball court and a gymnasium. SJUIT students participate in the Tanzania Universities Sports Association (TUSA) and won many medals and trophies. Students are encouraged to participate in intra and inter-college, sports and games.

5.9 Global Institutional Learning and Training Programme (GILT)

Global Institutional Learning and Training programme of St. Joseph University In Tanzania is a twining programme which offers a golden chance for students to visit another country and to spend two semesters /one academic year at the campus abroad by which the student is performing his/her learning in a different economic, cultural and environmental backgrounds.

This GILT programme gives students an international exposure to enriches their skills and profile.

5.10 Common Dress Code

Students should wear their ID cards while they are on-campus. White and Blue Special Coat should be worn by all students during their engineering Lab work. White over coat should be worn by the students working in the labs such as Computer lab, Electrical, Electronics, Medical, Biology, Chemistry and Physics Labs, while Blue over coats shall be worn for Workshops and Civil Labs.

Nursing male students wear white shirts and white trousers. Nursing female students wear pink with white color dress. Pharmacy male students put on dark blue trousers with white short sleeves shirt; while pharmacy female students wear dark blue dress which are long up to just beneath the knees. All trousers and gowns must be cotton and not jeans or cadet as curricula demand. Shoes are compulsory for all students on all working days. Indecent and undesirable dresses carrying political, abusive, obscene, commercial and religious slogans; dresses designed in a provocative or vulgar mode; dresses carrying suggestive pictures, photographs and invitations for mischief are strictly prohibited and liable for strong disciplinary action.

5.11 Medical Services

The University operates a Health Centre at each Campus College to serve students, staff members and to the general public. The health center at Mbezi is located on campus, whereas health services for Boko campus are done at Mbweni Hospital. The Health centres have full-time Medical Officers and full-time Nursing staff and they accept all patients who are using NHIF also.

General outpatient clinic operates on 12-hour basis from Monday to Friday at a reasonable fee. Health Centre may refer cases to relevant hospitals or to Muhimbili National Hospital. University students and staff are required to join the National Health Insurance Fund (NHIF) or any other health insurance which guarantees the medical treatment at the University Health Centres.

All students are required to pay an Annual Health Insurance fee of TZS 50,400.00 or they have to produce evidence of other health insurances in order to meet their medical expenses.

5.12 Library Services

The University has one big library on each campus to facilitate the teaching, learning, research and consultancy process. The libraries are equipped with relevant textbooks, reference books and collection of journals, project reports, maps, dissertations, periodicals and newspapers along with CD-ROMS and Internet services to access information from sources such as E-Books and E-Journals and websites.

Mbezi-Luguruni campus library has 60,133 books which are relevant to all the academic programmes. Boko campus library is a digitalized library having resources such as E-Books and E-Journals and websites and it also has 14,291 books which are relevant to MD, Nursing and Pharmacy programmes.

Library opening hour

Monday to Friday8.00 am to 8.00 pm,

Saturdays8.00 am to 1.00 pm,

On Sundays and Public Holidays, the library is closed.

5.13 Placement and Training Cell

A Placement and Training Cell is established with the view to assist the ultimate goal of every student. Students are assisted to achieve good placements in the job market or they are guided to become entrepreneurs. The Placement and Training Cell conducts frequent training for the students to match with the prevailing industrial requirement and soft skills so students will be placed in their dream job or become a successful entrepreneur.

6. THE INNOVATION AND TECHNO-PRENEURSHIP ACCELERATION FACILITY (ITAF)

Fourth Industrial Revolution (the information age) demands thinking creatively and the future of education will need to strategically utilize the "Internet of Things" to prepare the coming workforce for the challenges ahead. In shaping future technology and preparing future workforce, every university has a role to play as test-beds for innovation.

Therefore, to stimulate, catalyze, develop and promote innovation, SJUIT has put in place a mechanism for instilling entre- and/or techno-preneurship thinking among staff and students in order to ensure appreciable contribution to the socio-economic transformation of Tanzania. This mechanism is known as Innovation and Entrepreneurship Acceleration Facility (ITAF) which will enable students and staff to become innovative, enterprising, entrepreneurial, and competitive. Through this mechanism SJUIT hopes to contribute appreciably to employment generation, self-employment, and the development and growth of the local industry.

The facility will have various components including; Business idea development and competitions programmes, Technology-cum-Business Incubators (TBI), Talents Show-case and Exhibitions facility and Prototyping Workshop. The TBI is designed to enable further development, fine-tuning and nurturing of business ideas, technological products, and industrial and business solutions. The objective of the TBI facility is to catalyze the development of spin-offs and start-ups of competitive technological businesses for possible final roll-out. Matters related to intellectual property rights will be handled by the Intellectual Property & Technology Transfer Office which will be part of the ITAF.

The Talents Show-case and Exhibition's facility is intended to provide a platform for exposing and bringing to light the talents of students and faculty in developing tangible products, and industrial and business solutions to address real needs, problems and challenges confronting the society and industry. It is also intended to be a platform for connecting and linking SJUIT students to potential employers and the labour market generally. Students will be

encouraged to poster-exhibit the outcomes and display prototypes of their research and innovation work at this platform. The platform will be popularized and all visitors to SJUIT will be encouraged to visit it.

7. WORSHIP AND SPIRITUAL COUNSELING

Worship depends on a right spiritual or emotional or affectionate heart-grasp of God's supreme value. So true worship is based on a right understanding of God's nature and it is a right valuing of God's worth.

SJUIT is owned by the Registered Trustees of Daughters of Mary Immaculate and Collaborators (DMI) and thus founded on Roman Catholic Christian values and principles. However, students from all walks of believes are welcome and have equal opportunity to academic and related services. It is intended that the University community will be comprised of individuals from a wide range of ethnic, national and religious backgrounds, reflecting the diversity. The Chaplain of SJUIT Coordinates spiritual exercises. Places of Worship are provided inside the SJUIT premises for students of different religious denominations.

Spiritual counseling is reflective listening and faith-filled prayer that helps remind an individual that we are immersed in the Spirit and God is always present in every situation, as a constant resource and a mirror to guide us in what needs to be healed or learned. The following worship and counseling activities take place within the University

- Holy Eucharistic celebration on Every Mondays, Thursdays and Sundays
- Prayer services for other denominations are conducted on every Tuesdays and Fridays.
- Sacrament of Reconciliation on Fridays and before Eucharistic Celebration
- Recollection on every month
- Pilgrimage once in a semester
- Spiritual counseling periodically
- Visiting Orphanage centers

- Musical Concert
- Prayer and Worship Ecumenical Meet

8. SECURITY AND SAFETY MANAGEMENT SYSTEM

The University Security and Safety Management Systems consist of a Private Security Company with which the University has concluded a security services agreement for ensuring security services at the campuses premises are provided at all times in 24 hours.

All students are however cautioned to secure themselves, their colleagues and their properties by instilling in their minds the attitude of being always alert with security consciousness, spirit and self-awareness against unpredicted crimes. In case of any theft or security threats, students are required to raise alarm by timely informing the relevant University authorities or the police.

The nearest police station is Gogoni Police Station for Mbezi campus and Mbweni Police station for Boko campus. Whenever police assistance is needed, students are advised to report immediately by using the following telephone numbers112 or 911.

The campuses are also equipped with security walls and CCTV cameras.

9. SHOPPING FACILITIES

There are basic shopping facilities around the main campus colleges run by private individuals. There is a major shopping mall at Mlimani City, which is located at 17km from main campus. Major Banks, Bureau de Change, travel agents and mobile telephone service providers are located in the mall. For the St. Joseph College of Health and Allied Sciences, the Kibo Shopping Complex is a closest facility to the college.

10. STATIONERIES, PRINTING AND PHOTOCOPYING

There are a number of stationeries, printing and photocopying services situated around the main campus and the St. Joseph College of Health and Allied Sciences run by private individuals, which offer reasonable price to SJUIT staff

and students. Almost all major academic units and offices have photocopying facilities, which are dedicated to staff members, other printing, photocopy and stationery services are operated by private enterprises and are located in the campus colleges.

11. BANK SERVICES

SJUIT staff and students can access bank services from Exim bank and other banks which have their branches and ATM services around the Mbezi Luguruni Campus. At the Boko campus bank services can be accessed from the nearby Kibo shopping complex.

12. PRINCIPAL ADDRESS OF THE UNIVERSITY

St. Joseph University In Tanzania (SJUIT)

P.O. Box No11007, Dar es Salaam, Tanzania.

Phone+255 689304186, +255 686312811

Email: vc@sjuit.ac.tzadmission@sjuit.ac.tz

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CAMPUS COLLEGES

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es Salaam, Tanzania.

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Boko-Dovya, Bagamoyo Road, Dares Salaam, Tanzania.

Phone No+255689312861, +255686312802

Emailsjchs@sjuit.ac.tz

14. MEMBERS OF THE UNIVERSITY COUNCIL

S/N	NAME	DESIGNATION	POSITION IN COUNCIL
1	Dr. T.X.A Ananth	President, University Council	Chairperson
2	Hon. Gertrude Mongella	Eminent Person	Member
3	Rtd. Gen. John Minja	Retired Commissioner General of Prisons (CGP)	Member
5	Prof. Sylvia Temu	Professor, UD Business School, UDSM	Member
6	Rev. Sr. Gnana Selvam	Managing Trustee, DFT-Chennai, India	Member
7	Prof. David Ngassapa	Professor, Muhimbili University of Health and Allied Sciences (MUHAS)	Member
8	Rev. Fr. Henry Rimisho	Lecturer, Ardhi University	Member
9	Dr. Adolf B Rutayuga	Executive Secretary, NACTE	Member
10	Adv. Erasmus Buberwa	Partner at Upright Attorney – Corporate Counsel	Member
11	Mrs. Valentina Kayombo	International Civil Aviation Organization (ICAO), Nairobi	Member

S/N	NAME	DESIGNATION	POSITION IN COUNCIL
12	Eng. Patrick Barozi	Engineers Registration Board (ERB), Tanzania	Member
13	Dr. Richard Masika	Rtd. Rector, ATC	Member
14	Mr. Muhamad Mringo	Chairman & CEO Paradigms Institute Ltd.	Member
15	SJUIT Academic Staff Assembly Representative	St. Joseph University In Tanzania Academic Staff Association	Member
16	Students Organization Representative	St. Joseph University In Tanzania	Member

15. PRINCIPAL OFFICERS OF THE UNIVERSITY

Chancellor and Founder of the University

Rev. Fr. Dr. J.E. ArulRaj

President- University Council

Dr. T. X. A. Ananth, BBA, MBA, MPhil, PhD.

Vice Chancellor

Prof. Eliab Z. Opiyo - BSc in Engineering (Mechanical Engineering), MSc in Mechanical Engineering, PhD (Industrial Design Engineering)

Legal Counsel & Secretary to Council (LC-STC)

Advocate Erasmus Buberwa

Director, Directorate of Quality Assurance and Control

Dr. Wema. W. Wekwe, BSc. (Eng.) - Chemical and Process Engineering, MSc. (Chemistry), PhD. (Chemical Engineering)

Senate Members

S/N	NAME	DESIGNATION	POSITION IN SENATE
1	Prof. Eliab Z. Opiyo	Vice Chancellor	Chairperson
2	Prof. Bosco Bharathy Jesuraja	Ag. DVC-ARPE	Member
3	Prof. Estomih S. Massawe	Ag. DVC-RMA	Member
4	Eng. Ngwisa W. Mpembe	External, IET	Member
5	Dr. David P.Mnzava	External, MCT	Member
6	Prof. Stephen O. Maluka	External, DUCE	Member
7	Rev. Sr.Soosai A. Vijilidali	External, Social Works	Member
8	Prof. Alfonse Dubi	Principal, SJCET	Member
9	Prof Elizabeth Popova	Ag. principal, SJCHAS	Member
10	Dr. Lawrence J. Kerefu	DITAF	Member
11	Dr. Kassimu A. Nihuka	Director-PS	Member
12	Mr. Mathew O. Ngulugulu	Dean of Students	Member
13	Mr. Aravind S. Rajeshwari	COE In-charge	Member
14	Prof. Fred S. Mhalu	Professor, SJCHAS	Member
15	Mr. Jegab Babu	Chief Librarian	Member
16	Rev. Fr. Kranthi K. Konde	Chaplin	Member
17	Mr. Ranjith S. Arumugam	Assistant Lecturer, EECE	Recorder
18	Wema W. Wekwe	DOQAC	Member
19	Students Organization Representative	Student representative, SJUIT	Members

Ag. Deputy Vice Chancellor for Academic, Research and Public Engagement (ARPE)

Prof. Bosco Bharathy Jesuraja, Ag. DVC- RMA BSc (Chemistry) MSc (Chemistry), PhD (Chemistry)

Director of Undergraduate Studies

Dr. Bennaih Benno, BSc (Biology), MSc (Fisheries, Ph.D (Biology)

Controller of Examinations

Mr. Aravind S. Rajeshwari,

Director of Research and Postgraduate Studies

Dr. Kassimu A. Nihuka, PhD (Educational Science & Technology), MSc (Educational Science & Technology), Med (Sc.Ed), BSc (Ed in Chemistry & Biology).

Director of Innovation & Techno-Preneurship Acceleration Facility (ITAF)

Dr.Lawrence Joseph Kerefu, BSc. Mechanical Engineering, Master of Engineering Design, PhD. Engineering Management (Innovation)

Director of University Knowledge &Information Resources (Libraries)

Ms. Truphina Nsemwa, Diploma in librarianship, BA (Library Information Studies)

Ag. Deputy Vice Chancellor for Resources Management and Administration (RMA)

Prof. Estomiah Massawe, BSc (Education), MSc. (Mathematics), Ph.D. (Mathematics)

Director of Planning, Development & Monitoring (PPDM)

Mr. Saburi John, BSc. in Engineering-Surveying and Photogrammetry, MSc. In Civil Engineering

University Bursar

Rev. Sr. Antonia Manual, BA, MA, MBA (Finance)

Director, Human Resources Management and Administration

Ms. Upendo Urassa

Dean of Students

Mr. Ounkumnu Mathew Ngulugulu

Manager, Estates & Assets Management & Maintenance (EAMM)

Fr. Kranthi Konde, BA (Philosophy)

Principal, College of Engineering and Technology

Prof. Alfonce Dubi, Diploma in Structural Engineering, Dr. Engg. In Marine Technology, Port, Coastal and Offshore Engineering

Deputy Principal, College of Engineering and Technology - ARPE

Dr. Prabakaran Narayanan, BSc (Computer Science.), MSc (Comp.Sc.), Master of Technology (Computer Science), PhD (Computer Science)

Deputy Principal, College of Engineering and Technology - RMA

Dr. Bashira Alli Majaja, BSc (Engineering), MSc (Engineering), Ph.D. (Agricultural Machines)

Ag. Head of Department-Civil Engineering and the Built Environment

Eng. Ignito Sanga, B.Sc. in Civil Engineering, MSc in Coastal and Marine Civil Engineering

Ag. Head of Department-Mechanical Engineering

Mr. Jayaram Dasari; BE in Mechanical Engineering, ME in Mechanical Engineering.

Head of Department-Electrical Electronics and Communication Engineering

Dr. PrabharanPaulraj, BE, ME, Ph.D.

Head of Department-Computer Science and Information Systems Engineering

Dr. Amani Hassan Bura, BSc (Computer Science), MSc (Computer Science.), Master of Technology (Computer Science Engineering), PhD (Computer Science)

Head of the Department of College of Sciences, Mathematics and Education

Dr. Stanslaus P. Kashinje, B.Sc. (Physics), M.Sc. (Physics), PhD (Physics)

Section Head-Basic Sciences

Mr. MuruganThirumalai, BSc (Chemistry), MSc (Chemistry), MPhil (Chemistry)

Ag. Section Head - Education

Ms. Einoth Mollel, Bachelor of Education, Masters of Education in Educational Administration and Planning

Ag. Principal, College of Health and Allied Sciences, Boko, Dar es Salaam

Prof. Elizaveta V. Popova, Doctor of Medicine (MD), Master in General Practitioner, PhD in Hygine, Certificate Clinical Laboratory Diagnostic

Head of Department- Pathology

Prof. Eduard M. Vachitov, Master in General Pediatrics, PhD (Medical Science-Cell Biology, Cytology, Histology*)*

Head of Department-Medicine

Prof. Elena V. Generalova, Master in General Pediatrics,nMaster in Pediatrics, PhD (Pediatrics)

Head of Department-Public Health and Community Health

Dr. Dominick Tibyampansha, Degree of Bachelor of Medicine and Bachelor of Surgery, Master of Public Health

Head of Department-Biomedical Sciences (BMS)

Prof. Asiia Akhmeroyna, Master in General Practitioner, PhD (Medical Science-Biochemistry, Academic Doctorate Degree Doctor of Medical Science (Biochemistry)

Head of Department- Surgery

Prof. Leonid V. Kolotilov, Master i in Anesthesia and Critical Care Medicine, PhD in Anesthesia and Critical Care Medicine, Academic Doctorate Degree Doctor of Medical Science (Anesthesia and Critical Care Medicine)

Head of Department-Nursing

Mr.S.A.Jegan John Kutty, Diploma in Critical Care Nursing, B.SC Nursing, MBA (HR)

Head of Department - Pharmacy

Husna A. Mbarak, Bachelor of Pharmacy, Master of Pharmaceutical Analysis

16. GENERAL MINIMUM ENTRANCE REQUIREMENTS FOR DIRECT AND EQUIVALENT ENTRANCES

16.1 General Minimum Entry Requirements for Engineering and Bachelor of Sciences with Education Programmes

S/N	Category of Applicants	Minimum Admission Entry Qualifications
1	Completed 'A' Level Studies before 2014	Two principal passes with a total of 4.0 points in Two Subjects defining the admission into the respective programme (where A = 5; B = 4; C= 3; D = 2; E = 1; S = 0.5)
2	Completed 'A' Level Studies in 2014 and 2015	Two principal passes ('C' and above) with a total of 4.0 points from Two Subjects defining the admission into the respective programme (where A = 5; B+ = 4; B = 3; C= 2; D = 1; E = 0.5).
3	Completed 'A' Level Studies from 2016 onwards.	Two principal passes with a total of 4.0 points in Two Subjects defining the admission into the respective programme (where A = 5; B = 4; C= 3; D = 2; E = 1; S = 0.5)
4	Ordinary Diploma, FTC and Equivalent Qualification Applicants.	At least four passes ('D's and above) at O' Level or NVA Level III with less than four O' Level passes or equivalent foreign qualifications as established by either NECTA or VETA; AND
		At least a GPA of 3.0 for Ordinary Diploma (NTA Level 6); OR
		Average of "C" for Full Technician Certificate (FTC) (where A=5, B=4, C=3, and D=2 points); OR

S/N	Category of Applicants	Minimum Admission Entry Qualifications
		Average of 'B' Grade for Diploma in Teacher Education;
		A Distinction for unclassified Diplomas and certificates
S/N	**Category of Applicants**	**Minimum Admission Entry Qualifications**
		Upper Second Class for classified non-NTA Diplomas
5	Foundation Programme of the OUT	A GPA of 3.0 accumulated from six core subjects and at least a C grade from three subjects in respective cluster (Arts, Science and Business Studies) **PLUS** An Advanced Certificate of Secondary Education Examination with at least 1.5 from two subjects OR An Ordinary Diploma from a recognized institution with a GPA of at least 2.0 OR NTA level 5 /Professional Technician Level II certificate.

16.2 General Minimum Entry Requirements for Doctor of Medicine Programme.

S/N	Category of Applicants	Entry Requirements
1	Applicants with form Six Qualification.	Three principal passes in Physics, Chemistry and Biology with minimum entry of8 points, whereby one must have at least C grade in Chemistry and Biology and at least D grade in Physics.
2	Applicants with Equivalent Qualification.	All equivalent applicants need to have a Certificate of Secondary Education Examination (CSEE) with at

S/N	Category of Applicants	Entry Requirements
		least five (5) passes, including two credit passes in Chemistry and Biology and a 'D' grade in Physics PLUS appropriate Diploma or Advanced Diploma with an average of "B+" or GPA of 3.5 OR BSc (lower second) majoring in Physics/Mathematics, Chemistry, Biology /Zoology.

16.3 Specific Entry Requirements per Programme

S/N	Programmes	Code	Direct Entry (Form Six)	Equivalent Qualifications
1	Bachelor of Engineering in Civil Engineering	JD001	Principal passes in Mathematics and Physics at A' Level.	Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Civil Eng. (OR) Water Supply and Sanitation (OR) Transport Eng. (OR) relevant with minimum GPA of 3.0 along with four relevant passes at O level Certificate.
2	Bachelor of Engineering in Computer Science Engineering	JD002	Principal passes in Mathematics and Physics at A' Level.	Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Electronics and Telecommunication Eng. (OR) Computer Science (OR) Information Technology (OR) relevant with minimum GPA of 3.0 along with four relevant passes at O level Certificate.

S/N	Programmes	Code	Direct Entry (Form Six)	Equivalent Qualifications
3	Bachelor of Engineering in Electrical & Electronics Engineering	JD003	Principal passes in Mathematics and Physics at A' Level.	Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Electrical &Electronics Engineering, Electrical Engineering OR Electronics Engineering OR Telecommunication Engineering with minimum GPAof3.0 along with four passes at O level Certificate and 'C' for FTC.
4	Bachelor of Engineering in Electronics & Communication Engineering	JD004	Principal passes in Mathematics and Physics at A' Level.	Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Electrical & Electronics Engineering, Electrical Engineering OR Electronics Engineering OR Telecommunication Engineering with minimum GPAof3.0 along with four passes at O level Certificate and 'C' for FTC.
5	Bachelor of Engineering in Engineering in Information Systems & Network Engineering	JD005	Principal passes in Mathematics and Physics at A' Level.	Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Electronics and Telecommunication Eng. (OR) Computer Science (OR) Information Technology (OR) relevant with minimum GPA of 3.0 along with four relevant passes at O level Certificate.

S/N	Programmes	Code	Direct Entry (Form Six)	Equivalent Qualifications
6	Bachelor of Engineering in Mechanical Engineering	JD006	Principal passes in Mathematics and Physics at A' Level.	Diploma/FTC in Mechanical or Automotive or Automobile Engineering, Marine Engineering, Hydrology and Water-well Drilling Engineering, Transport Engineering OR relevant with an average of 'B' or GPA of 3.0 for Diploma and "C" for FTC.
7	Bachelor of Science with Education	JD008	Two principal passes from the following subjectsPhysics, Chemistry, Biology, Mathematics.	Diploma in Education NTA level 6 (Science related) OR (Science) with minimum GPA of 3.0 along with four passes at O level Certificate.
8	Bachelor of Science in Computer Science	JD009	Two principal passes in the following subjectsAdvanced Mathematics, Biology, Physics, or Chemistry or Foundation Programme of the OUT with a minimum GPA of 3.0 in Science Cluster.	Diploma and/or Full Technician Certificate in Diploma in Computer Science, Information Technology, Information System, Information Technology with Accounting, Civil, Electrical and Electronics, Computing and Information Technology, Electronics and Telecommunications, Information and Communication Technology, Computer Engineering, Mechatronics Electronics and Telecommunication, Industrial Automation

S/N	Programmes	Code	Direct Entry (Form Six)	Equivalent Qualifications
9	Doctor of Medicine	JDH01	Three principal passes in Physics, Chemistry and Biology with minimum entry of 6 points; whereby one must have at least C grade in Chemistry and Biology and at least D grade in Physics.	Certificate of Secondary Education Examination (CSEE) with at least five (5) passes, including two credit passes in Chemistry and Biology and a 'D' grade in Physics PLUS Diploma in Clinical Medicine With an average of "B+" or GPA of 3.5 OR B.Sc. (Lower Second) majoring in Physics/ Mathematics, Chemistry, Biology/ Zoology.

16.4 Non-Degree Programmes

Candidates wishing to be enrolled for non-degree programme of SJUIT have to fulfill the minimum entrance requirements specific to each programme as indicated below

S/N	Programme	Minimum Entrance Requirements
1	Ordinary Diploma in Civil Engineering	Holder of Certificate of Secondary Education Examinations (CSEE) with at least Four (4)

S/N	Programme	Minimum Entrance Requirements
2	Ordinary Diploma in Computer Science and Engineering	passes in non - religious subjects including Physics/Engineering Science, Basic Mathematics and Chemistry; OR Holder of General Certificate in Engineering; OR Holder of Certificate of Secondary Education (CSEE) with a Minimum of pass in Basic Mathematics and National Vocational Award (NVA) Level III or Trade Test Certificate of Grade I in the relevant field offered by VETA Accredited Institution.
3	Ordinary Diploma in Electrical and Electronics Engineering	
4	Ordinary Diploma in Electronics &Communication Engineering	
5	Ordinary Diploma in Mechanical Engineering	
6	Ordinary Diploma in Information Technology	Holder of Certificate of Secondary Education Examinations (CSEE) with At Least four (4) Passes "D" in non-religious Subjects including D in Physics/Engineering Science and Basic Mathematics.
7	Ordinary Diploma in Nursing and Midwifery (NTA 6).	Holders of Certificate of Secondary Education Examination (CSEE) with four (4) Passes in non-religious Subjects including "D" Passes in Chemistry, Biology and Physics/Engineering Sciences a Pass in Basic Mathematics and English Language is an added advantage.
8	Ordinary Diploma in Pharmaceutical Sciences (NTA 6).	Holders of Certificate of Secondary Education Examination (CSEE) with four (4) Passes in non-religious Subjects including "D" Passes in Chemistry and Biology, a Pass in Basic Mathematics and English Language is an added advantage.

S/N	Programme	Minimum Entrance Requirements
9	Technician Certificate in Pharmaceutical Sciences (NTA 5).	Holders of Certificate of Secondary Education Examination (CSEE) with four (4) Passes in non-religious Subjects including "D" Passes in Chemistry and Biology; AND Possession of Basic Technician Certificate (NTA Level 4) in Pharmaceutical Sciences.

16.5 Holders of Foreign qualifications

All applicants holding foreign qualifications must have their qualifications validated and equated by the respective regulatory bodies before submitting their applications for admission as followsThe National Examinations Council of Tanzania (NECTA) in respect of certificates of secondary education examination. The National Council for Technical Education (NACTE) in respect of NTA Level 6 qualifications.

Registration Procedures and Regulations

All enquiries about admission should be addressed to

The Director of Undergraduate Studies

St. Joseph University In Tanzania

P.O Box 11007

Dar es Salaam, Tanzania

E-mailadmission@sjuit.ac.tz

Phone+255 784 757010, +255 713 757010, +255 689 312861,+255 686 312867

i All applicants MUST submit their applications for admission online through www.sjuit.ac.tz. Only applicants who meet the TCU minimum entry qualifications should submit their applications for Degree programmes and only applicants who meet the NACTE minimum entry qualifications should submit their applications for Diploma programmes.

The entry qualifications for Degree programmes and Diploma programme are also available at TCU website www.tcu.go.tzand NACTE website www.nacte.go.tzrespectively. Applications which do not meet the minimum entry qualifications will not be processed. It is an offence to submit false information when applying for admission. Applicants found to have submitted forged certificates or any other false information will not be considered and appropriate legal actions will be taken against them. Bonafide University students are cautioned not to attempt applying for admission. If such students submit their application, they will be liable to deregistration. Likewise, former students who have already graduated cannot be admitted as undergraduate students under Government loan sponsorship.

ii All new students are required to report for the orientation programme that normally takes place during the week preceding the beginning of the new academic year.

iii Successful applicants will be registered only after they have paid the required University fees.

iv Fees once paid will not be refunded.

v All students, if accepted, are expected to abide entirely by the University regulations.

vi The deadline for registration of first year students will be two weeks from the first day of orientation week, while for continuing students it will be the Friday of the second week after the beginning of the first semester.

vii Barring exceptional circumstances, no student will be allowed to change subjects/courses later than the Friday of the fourth week after the beginning of the first semester. Transferring from one academic programme to another will be allowed only where the student has the

required admission criteria for the academic programme for which transfer is being sought and a vacancy exists in that programme.

viii Students discontinued on academic grounds from one College may be allowed to apply into another College provided that the sponsor approves. Discontinued students wishing to re-apply in the same College must show evidence of having followed further studies satisfactory to the College.

ix Students will be allowed to be away from the University studies for a maximum of two years if they are to be re-admitted to the same year of studies where they left off.

x Students discontinued from studies because of examination irregularities will be considered for readmission after they have been away for two years. They will be required to re-apply and compete with other applicants for re-admission into first year.

xi No change of names by students will be allowed during the course of study at the University and they will only be allowed to use names appearing on their certificates.

xii No student will be allowed to postpone studies after effective commencement of an academic year except under special circumstances. Permission to postpone studies will be considered after producing satisfactory evidence of the reasons for postponement and written approval from the sponsor. Special circumstances shall includeSickness; Serious social problems (each case to be considered on its own merit); and severe sponsorship problem.

17. ACADEMIC PROGRAMMES AT THE UNIVERSITY

Undergraduate Programmes

The undergraduate programmes offered by SJUIT in its three Colleges are

17.1 St. Joseph College of Engineering and Technology (SJCET)

17.1.1 Degree programmes Offered by the College

The Bachelor Degree programmes, listed below are of eight semesters covered in four academic years.

i. Bachelor of Engineering in Civil Engineering

ii. Bachelor of Engineering in Mechanical Engineering

iii. Bachelor of Engineering in Electrical and Electronics Engineering

iv. Bachelor of Engineering in Electronics and Communication Engineering

v. Bachelor of Engineering in Computer Science Engineering, and

vi. Bachelor of Engineering in Information Systems and Networking Engineering

vii. Bachelor of Science in Computer Science

viii. Bachelor of Science with Education

The Bachelor Degree programmes, listed below are of six semesters covered in three academic years.

- Bachelor of Science with Education in Mathematics and Chemistry
- Bachelor of Science with Education in Mathematics and Computer Science
- Bachelor of Science with Education in Physics and Mathematics
- Bachelor of Science with Education in Physics and Chemistry
- Bachelor of Science with Education in Physics and Computer Science
- Bachelor of Science with Education in Biology and Chemistry

17.1.2 Diploma Programmes Offered by the SJCET College

The Ordinary Diploma programmes, listed below are of six semesters covered in three academic years.

i. Ordinary Diploma in Civil Engineering
ii. Ordinary Diploma in Mechanical Engineering
iii. Ordinary Diploma in Electrical and Electronics Engineering
iv. Ordinary Diploma in Electronics and Communication Engineering
v. Ordinary Diploma in Computer Science Engineering, and
vi. Ordinary Diploma in Information technology

17.3 St. Joseph College of Health and Allied Sciences (SJCHAS)

17.3.1 Degree programmes offered by the College

The Bachelor Degree programme, listed below is ten semesters covered in five academic years

i. Bachelor of Doctor of Medicine.

17.3.2 Diploma programmes offered by the SJCHAS College

The Ordinary Diploma programmes, listed below are of six semesters covered in three academic years.

i. Ordinary Diploma in Nursing and Midwifery
ii. Ordinary Diploma in Pharmaceutical Sciences

17.3.3 Certificate programmes offered by the College

The Basic Technician Certificate and Technician certificate are part of the Ordinary Diploma. Students who wish to exit or fail to attain an Ordinary

Diploma but have successfully fulfilled the requirements for awards of Basic Technician Certificate (NTA 4) or Technician Certificate (NTA 5) shall be awarded the awards qualified for.

i. Technician Certificate in Nursing and Midwifery

ii. Technician Certificate in Pharmaceutical Sciences

iii. Basic Technician Certificate in Pharmaceutical Sciences.

18. REGULATIONS GOVERNING LEARNING AND TRAINING AT THE UNIVERSITY

18.1 Schedule of Studies

Generally, the daily academic schedule of the University starts at 8.00 a.m. and ends at 8.00 p.m. The actual time is shown in the schedule at the beginning of each semester. Punctuality is demanded. There is no schedule for weekends and public holidays. However, in extenuating and unavoidable circumstances academic activities may be scheduled for weekends and/or public holidays. In such cases, full cooperation of students and staff members is expected and obligatory.

18.2 Structure of Programme

- Every Programme will have a curriculum with a syllabus consisting of Theory and Practical components.
- Each course is normally assigned a certain number of credits.
- For the award of the degree, a student has to earn a certain minimum total number of credits specified in the curriculum of the relevant branch of study.

18.3 Medium of Instruction

Unless the subject otherwise requires, the medium of instruction for all the Degree, Diploma and Certificates Programmes offered at the University is English only. The medium of instruction for Examinations and Project report will be only in English.

18.4 Semester System

Each semester is 18 weeks long. Lectures/seminar/tutorials will last for 16 weeks and the last two weeks of each semester are reserved for University examinations for Degree and Diploma programmes of SJCET & SJCSME.

Each semester is 20 weeks long. Lectures/seminar/tutorials will last for 18 weeks and the last two weeks of each semester are reserved for University examinations for Degree programmes of SJCHAS.

For Pharmaceutical Sciences and Nursing and Midwifery programmes the Academic schedule is followed from the Ministry of Health Community Development, Gender, Elderly and Children.

18.5. Examinations

Examinations include continuous assessment (tests, quizzes, assignments, seminars, presentations, practical/clinical rotations, oral tests, dissertations/project reports or any other forms of assessment specified in the study guide issued at the beginning of a Semester) and end of semester/clinical rotations/module examinations including practical and oral examination where appropriate. There shall be written university examinations at the end of each semester for each module taught. There shall also be practical and/or oral examinations during each end of semester for the practical modules.

18.6 Mode of Assessment

Every course module is assessed for a maximum 100 marks where the internal and external marks are aggregated into the proportions of 40-60 for theory modules and 40- 60 for practical modules whereas for Doctor of Medicine (MD) Programme it is 50-50 for both theory, and the theory cum practical modules.

18.7 Minimum Number of Students

The minimum number of students required for any particular undergraduate degree programme to run shall be ten (10). Departments wishing to run programmes with less than ten students shall first obtain special permission from the Council. The set number of students is subject to annual reviews by the Council.

19. GENERAL UNIVERSITY EXAMINATION REGULATIONS

19.1 Examinations

i. Examinations include continuous assessment (tests, quizzes, assignments, seminars, presentations, practical, oral tests, dissertations or any other form of assessment specified in the study guide issued at the beginning of each Semester) and end of Semester University Examinations including practical and oral examination where appropriate.

ii. There shall be written University Examinations at the end of each semester for each module taught. There shall also be practical and/or oral examinations during end of each semester for the module taught.

iii. Timing of examinations shall be between 08.00 a.m and 09.00 p.m any day of the week including weekends. Approved public holidays and other days when the University/College/Campus Institute is closed are excluded.

19.2 Registration for Modules

i. The students shall register for all the modules including supplementary in the third and fourth week of the semester.

ii. A candidate shall be examined in all modules registered for.

iii. For an elective module to be offered the minimum number of students shall be twenty (20) in Diploma and Degree

iv. No student will be permitted to commence any course / module three weeks after the beginning of the semester or withdraw from any course / module four weeks after the beginning of the Semester.

19.3 Eligibility for Examinations

i. The Principal of a College or Dean of School or the Director of Institute may bar any candidate from being admitted to any examination in any subject or course or module where the Principal or Dean or Director is satisfied that the candidate has not completed satisfactorily by attendance, performance or otherwise the requirements of the subject of course.

ii. Candidates eligible for examinations shall be those fulfilling University registration, course eligibility requirements and full payment of fees. iii.A candidate shall only be allowed to sit for the scheduled University examination(s) if he/she would have attained 85% of attendance of the course/module through lectures, seminars and tutorials; but for the practical sessions, a candidate must attain 95% attendance rate. A candidate who fails to attain at least 85% and 95% attendance rates for lectures/seminars and practicals respectively shall be required to retake the whole course/module when next offered.

iv. However, with special permission a candidate with less than 85% but not below 75% of attendance shall be deemed to have satisfied the conditions of attendance in a semester on medical or academic grounds subject to the approval of the College/Institution Academic Board / Faculty Board.

v. Where a candidate who has been barred in accordance with paragraph 3.1 or 3.2 or 3.3 enters the examination room and sits for the paper, his/her results in the paper shall be declared null and void.

vi. A candidate whose work or progress is considered unsatisfactory may be required by the Senate, on the recommendation of the appropriate College, School or Academic Institute Board to withdraw from the University or to repeat any part of the course before admission to an

examination. Failure in an examination, including a session (IPT/TP) or semester examination may be regarded as evidence of unsatisfactory progress.

vii. Where a candidate who has not registered for studies or for a course sits for an examination, the examination results shall be nullified.

viii. A candidate shall be required to attend all sessions of Field / Industrial Practical Training (IPT) or Teaching Practice (TP) and if a candidate misses any session without the permission of the Dean or Director or Head of Department or his appointee (i.e. IPT/TP supervisor) shall be discontinued from studies. In case permission for being absent from FPT or TP is granted, the candidate shall be required to complete the training session using own resources.

19.4 Absence from Examination

(i) A candidate who absents oneself from an end of semester examination without compelling reasons shall be deemed to have absconded from the examination and shall be discontinued from studies.

(ii) A candidate who absents oneself from any continuous assessment test or fails to submit assignment(s) given as part of the coursework without compelling reasons shall be considered to have attempted such examinations or assignment(s) and shall be awarded a zero mark.

(iii) A candidate who fails to submit an assignment on time without compelling reasons may be penalized according to a penalty marking system pre-indicated in the course outline by instructor.

(iv) A candidate who fails to sit for a continuous assessment test(s) or submit (an) assignment(s) because of compelling reasons shall be required to complete the same before attempting the end of semester examination(s) of the respective course. Such a candidate shall be responsible for initiating a request for the continuous assessment test or assignment.

(v) A candidate allowed to be absent from the end of semester examination (s) shall carry forward the examination(s) as incomplete and shall have to sit for the respective examination(s) during the subsequent examination session conducted in the second week and third week of the next semester.

(vi) Permission for postponement of end of semester examination(s) shall be granted by the Deputy Vice Chancellor for Academics, Research and Public Engagement in consultation with the Principal/Dean of Students/Head of Department, and, where applicable, the Resident Medical Officer.

(vii) Postponement of course assessment tests shall be granted by the course instructor and reported to the Head of Department/Dean of Faculty/Director of Institute/ Directorate/ Centre.

(viii) Request for postponement of end of semester examination(s) or course work assessment tests shall be made by submitting the prescribed Examination form along with a covering letter.

19.5 Assessment Criteria for Various Components of Examinations

The pass mark shall be 40% for practical and 40% for theory, separately. There shall be no compensation of marks scored in one paper for another paper. Assessment of courses which have no practical components (Theory Modules) shall be done as follows

(i) Take-home essays and/or assignments shall account for 20% of the end of semester marks for the course.

(ii) Tests/quizzes during the semester shall account for 20% of the marks or 30% of the marks for courses without assessed seminar reports and/or presentations, with weightage of each test/quiz being proportional to time allocated for the test/quiz.

(iii) Seminar reports and presentations where applicable shall account for 10% of the end of semester marks for the course

The final written paper shall account for 60% of the end of semester final mark for the course.

Assessment of courses that have also practical components (Theory cum Practical module) during the course but no end of practical examination shall be done as follows

(i) Students' reports on practical conducted and practical work shall carry 10% of the assessment

(ii) Take-home essays and assignments that will be given at appropriate stages during the semester session will carry 10% of the assessment.

(iii) Tests and quizzes which will be given at appropriate stages during the semester session will carry 20% of the assessment and the weightage of individual assessment tool will be proportional to time allocated to it.

(iv) The final written paper shall account for 60% of the end of semester final mark for the course.

Assessment of courses that have practical components (Practical Module) only during the course and end of practical examination shall be done as follows

(i) Students' reports on practical work shall carry 20% of the assessment

(ii) Practical test[s] conducted in each semester shall carry 20% of assessment

(iii) The end of semester practical examination account for 40% of the semester final mark for the subject.

(iv) The end of semester oral examination account for 20% of the semester final mark for the subject.

Assessment of Research Project (Project Work Module) course shall be done as follows

(i) Student's research project work Report shall carry 40% of the assessment.

(ii) The end of semester student oral examination on research project work by student's oral presentation shall carry 20% of the assessment.

(iii) The end of semester student research project work evaluation examination on research project work by student's oral presentation and demonstration shall carry 40% of the assessment.

Assessment of Field Practical Training (Industrial Practical Training Module) course shall be done as follows

(i) Student's industrial practical training work Report and Diary (Form E) shall carry 20% of the assessment.

(ii) Student's industrial practical training Report by the visiting Staff Advisor shall carry 10% of the assessment.

(iii) Student's industrial practical training Report by the Industrial training officer shall carry 10% of the assessment.

(iv) The end semester Evaluation of the Field Practical Training (Industrial Practical Training Module) work shall carry 40% of the assessment.

(v) The end of semester student oral examination on industrial practical training by student's oral presentation in review work shall carry 20% of the assessment.

Assessment of Teaching Practice Training (Teaching Practice Module) course shall be done as follows

(i) Students Teaching Practice Report work shall carry 20% of the assessment.

(ii) Students Teaching Practice Report by the visiting Staff Advisor shall carry 10% of the assessment.

(iii) The end of semester student teaching practice report of the student training officer assessment report work shall carry 10% of the assessment.

(iv) The end semester Evaluation of the teaching practice work shall carry 40% of the assessment.

(v) The end of semester student teaching practice by student teacher's oral presentation in review work shall carry 20% of the assessment.

(vi) Notwithstanding the above-mentioned apportionment of marks, there may be course- dependent variation that shall be clearly spelt out in the approved course curriculum.

(vii) At the designated semester for each degree or non-degree programme, each candidate will present a research project proposal to constitute examinable subject "Project work Phase I" which must be passed.

(viii) A candidate who fails in Project work Phase I shall be required to resubmit the research project proposal within one month of the release of the results.

(ix) Each finalist candidate shall be required to undertake a Research Project (to constitute the examinable subject "Project Work Phase II") being the execution of research project proposal developed in Research Project Work Phase I. and shall, before the start of the end- of- semester study break, be required to submit a report (in printed and electronic form) to the Head of Department in which the Research Project was conducted.

(x) The Research Project report phase II shall be evaluated. Passing in Research Project Phase II report is a requirement for the award of a degree or non-degree.

(xi) A candidate who will not have submitted the Research Project report phase II in time and without compelling reasons will be deemed to have failed in Research Project phase II (hence awarded zero mark).

(xii) In deciding whether or not to accept a Research Project report phase II that has been submitted late, circumstances leading to late submission of the Research Project report would have to be taken into consideration by the respective Department.

(xiii) A candidate who fails in Research Project II will be allowed to re-submit the report within six months from the date of the release of examination results or within such period as shall be recommended to Senate, by the board of the relevant Faculty/Institute/Directorate/Centre.

(xiv) Field practical training / Teaching practice is an essential requirement of all programmes and shall be conducted and assessed as spelt out in the respective curriculum. A pass grade in the field practical training / Teaching practice shall be required before a candidate is allowed to proceed to the next academic unit of study or to graduate in the case of a final year candidate.

For the undergraduate engineering / education programmes the following special regulations shall apply

(i) Every Industrial Practical training (IPT) / Teaching practice (TP) shall be treated as a subject of the succeeding Semester and the results shall contribute to the particular academic unit.

(ii) Practical Training reports shall be handed in for assessment before the end of the second week of the succeeding semester.

(iii) The candidates who do not meet the minimum required marks in the internal / course work in any module will not be permitted to appear for its end semester examination of that module, and such module is declared as "**INELIGIBLE MODULE**". The candidates who have ineligible module(s) shall redo the internal / course work process in the next higher semester so as to make the modules eligible. The candidates "**INELIGIBLE"** for all the modules should retake the whole course/module when next offered.

Marks Allotment – Engineering Degree & Degree Education Programmes

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min Total (required)	Max Mark
1	Theory	Internal	CAT's	20	8	40	100
			Assignment	20	8		
		External	End exam	60	24		
2	Theory cum Practical	Internal	CAT's	20	8	40	100
			Assignment	10	4		
			Practical	10	4		

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min Total (required)	Max Mark
		External	End Exam	60	24		
2	Practical	Internal	Record Work/Model Practical	40	16	40	100
		External	Demonstration	40	16		
			Viva voce	20	8		
3	Project Work	Internal	Project Report	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		
4	IPTR/ Teaching Practice	Internal	Performance Report	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		

Marks Allotment – Engineering Diploma Programmes

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min Total (required)	Max Mark
1	Theory	Internal	CAT's	20	8	40	100
			Assignment	20	8		
		External	End exam	60	24		
2	Practical	Internal	Record work	40	16	40	100
S/N	**Modules**	**Assessment Type**		**Max Marks**	**Min Marks**	**Min Total (required)**	**Max Mark**
		External	Demonstration	40	16		
			Viva voce	20	8		
3	Project Work	Internal	Project Report	40	16	40	100

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min Total (required)	Max Mark
		External	Evaluation	40	16		
			Viva voce	20	8		
4	IPTR / Teaching Practice	Internal	Evaluation	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		

19.6 Dates and duration of Examinations

(i) Examinations in all Colleges, Schools and Academic Institutes shall be held at a time to be determined by Senate, which shall normally be at the end of each semester, subject to such exceptions as Senate may allow upon recommendation by a College, School or Academic Institute Board or a College Governing Board, as the case may be.

(ii) Candidates who are referred and are required to do supplementary examinations shall be re-examined in the referred subjects at a time to be determined by the Senate or in particular cases by the relevant College/School/ Institute Board, as the case may be, which shall not be less than three month after the ordinary examinations at the end of the semester in the academic year.

(iii) A candidate who, for reasonable cause, was unable to present himself/herself in the ordinary examinations may, with the special permission of Senate or in that behalf the College/School/Institute Board as the case may be, present himself/herself for examination at a time fixed for any supplementary examination.

(iv) Dates and times of conducting continuous assessments shall be determined and indicated by the respective Lecturer(s)/Instructor(s) in the course outlines or study guides or otherwise at the beginning of the Semester.

(v) All course assessments shall be carried out in time to allow results to be known to candidates at least one week before the study break preceding the end of semester examinations

(vi) Frequency of continuous assessment shall be at least two for each assessed item, e.g., minimum number of class tests is two.

(vii) Dates for the end of semester examinations shall be published in the Institute's academic calendar approved by the Academic Committee of the Council.

(viii) Duration for end of semester theory/Practical examinations shall be at least three hours.

19.7 Conduct of Examinations

(i) Overall co-ordination and control of the University Examinations shall be the responsibility of the office of the Controller of Examination (COE).

(ii) The Senate, in the manner it shall prescribe, shall appoint the examiners for University examinations.

(iii) The COE in charge shall have power to issue such instructions, notes or guidelines to candidates, invigilators and examiners of University examinations, as he/she shall deem appropriate for the proper, efficient and effective conduct of such examinations.

(iv) The instructions, notes or guidelines issued by the COE in charge under regulation 7.3 shall form part ofand be as binding as these Regulations.

(v) Subject to approval by the Senate, the Board of each College, School and Academic Institute shall make such internal examination regulation as are necessary for the proper conduct, management and administration of examinations in accordance with the specific requirements of particular degree, diploma, certificate or other award programmes of the College, School or Academic Institute, as the case may be.

(vi) End of semester examinations shall be coordinated and conducted under the control of the Dean/Director, of the respective Faculty/Institute/Directorate/Centre in collaboration with Head of Department.

(vii) All end of semester theory and practical (where applicable) examinations shall be examined for three hours. As far as possible no end of semester examination shall have sole examiner.

19.8 Examination Irregularities

(i) All cases of alleged examination irregularities, including alleged unauthorized absence from examination, possession of unauthorized material in the examination room, causing disturbances in or near any examination room and any form of or kind of dishonesty, destruction or falsification of any evidence of irregularity or cheating in examination, shall be reported to the Senate Undergraduate Studies Committee or to a College Academic Board/ Committee, which Committee/Board shall have power to summon the students and members of staff of the University, as it deems necessary and make decisions, subject to confirmation by Senate.

(ii) No unauthorized material shall be allowed into the examination room.

(iii) Subject to confirmation by Senate, any candidate found guilty of bringing unauthorized material into the examination room in any part of the examination process shall be deemed to have committed an examination irregularity and shall be discontinued forthwith from studies in the University.

(iv) Any candidate found guilty of cheating in relation to any part of the examination process shall be deemed to have committed an examination irregularity shall deem to have failed in the whole of that examination for that year and shall be discontinued from studies in the University, subject to confirmation by Senate.

(v) Candidates are not allowed to enter examination venues without the approval/permission of the invigilator(s). A candidate found to have done so shall be reported to the COE and the fate of such a candidate may include being barred from sitting for the examination.

(vi) A candidate must carry both the identity and examination number cards, which must be shown to the invigilator(s) before entering the examination room. A candidate failing to show the two cards shall not be allowed to sit for the examination and the case shall immediately be reported to the COE. Such a candidate shall be considered to have attempted and failed the respective examination (hence awarded zero mark).

(vii) A candidate must present oneself to the Invigilator(s) and for examination in a manner in which he/she can be identified and matched up with the identity and examination number cards. A candidate failing to present oneself in a manner that allows his/her identity to be determined shall not be allowed to sit for the scheduled examination and the case shall then be reported to the COE. Such a candidate shall be considered to have attempted and failed the respective examination(s) (hence awarded zero mark).

(viii) A candidate who carries any type of unauthorized material(s) into examination premises and requests to surrender such materials to the Invigilators on his/her own accord before examination papers are distributed to candidates, shall be allowed to sit for examination after formally surrendering the items. Such a candidate shall be served with a written warning by the COE following the recommendations of the Examination Board. A candidate who will be found to have committed such an offence twice shall be discontinued from studies.

(ix) A candidate who carries unauthorized material(s) into examination premises and declares to possess them after question papers have been distributed during the examination, shall be deemed to have possessed unauthorized materials. Such a candidate shall be required to

surrender the item(s) to the invigilator and thereafter allowed to proceed with the examination and other subsequent examinations during the period of investigation of the case by the Examination Board.

(x) Candidates shall not be allowed to borrow materials of any kind including calculators, rulers, statistical tables, pencils and pens among candidates during examinations. A candidate found to be involved in the act of borrowing or exchanging material(s) of any form during the examinations shall be deemed to have contravened university examination regulation and hence shall be required to surrender them to the Invigilator(s). Cases of such candidates shall be reported to the COE for investigation. Such a candidate shall however be allowed to continue with examinations during the period of investigation.

(xi) Save for medical, physiological or other justifiable reasons intimated before the start of examination, no candidate will be allowed to chew anything while in the examination venue. A candidate found to be doing so and refuses to produce exhibit of the material being chewed will be guilty of attempting to destroy evidence of possession of unauthorized materials while in the examination venue and his/her case shall be reported to the COE for investigation by Examination Board.

(xii) Any candidate found guilty of causing disturbance or any form of chaos near any examination room shall be deemed to have committed an examination irregularity and shall be evicted from the examination room immediately and may be prohibited by the COE from sitting for subsequent examinations and have failed in the whole of that examination for that year and shall be discontinued from studies in the University, subject to confirmation by Senate.

(xiii) A candidate who starts to write before the official start of the examination as declared by the Invigilator(s) as well as one who continues to write after the official end of the examination shall be reported to the Examination Officer. Such a candidate shall be served with a letter of warning by the Examinations Officer. A candidate found

to have committed a similar offence and who had been served with a letter of warning before shall be discontinued from studies.

(xiv) In some examinations, the rubric may indicate that the question paper shall be collected together with the answer book. In such cases no candidate will be allowed to go out of the examination room with an examination paper. Candidates who do not submit the question paper shall be deemed to have contravened a University Examination regulation and a valid penalty (such as non-marking of the answer book) as spelt out on the rubric shall apply.

(xv) No candidate will be allowed to go out of the examination room with a used or unused answer book. Possession of used or unused University examination answer book(s) shall be considered as an examination irregularity. Possession of these materials by other unauthorized people who are not students shall be dealt with in accordance with the law and University regulations.

(xvi) Member(s) of staff of the same sex shall do body search of a candidate suspected of carrying unauthorized materials.

(xvii) Candidates have the responsibility of reporting any alleged examination irregularities to the COE for investigation by the Examination Board.

(xviii) The Examination Board shall investigate all cases of examination irregularities as directed by the COE upon receiving reports from invigilator(s).

(xix) The Examination Board, upon being tasked to investigate a case of examination irregularity, shall have the powers to summon candidates and members of staff, as it deems necessary.

(xx) In general, any candidate who will be proven to have cheated in any examination shall be discontinued from studies.

(xxi) All cases of examination irregularities shall be concluded within three months of reporting to the COE.

(xxii) Any candidate found guilty of commission of an examination irregularity and is aggrieved by the decision may appeal to the Senate in accordance with the provisions of regulation 17 of these Regulations.

In this regulation

a. "Unauthorized material" includes any written or printed material that is generally or specifically prohibited from being brought into the examination room, cellular or mobile phones, radios, radio cassette or other types of players, computers, handbags, purses, books, soft drinks (except where water is permitted) and alcoholic drinks and any other material as may be specified from time to time by the university, the Principal of College, Dean of a School, Director of an academic Institute or Head of an academic department. A candidate found in possession of unauthorized materials shall be required to surrender the material(s) to the invigilator(s) and will be allowed to proceed with the examination and the case reported to the COE;

b. "Unauthorized Attire"; No candidate shall be allowed to enter an examination venue while wearing a cap, hat, sweater, pullover, jacket or overcoat. However, under special circumstances, such as medical grounds, and upon request, the COE can grant permission for a candidate to put on such attire during the examination(s). A candidate found with such attire during examinations shall be required to surrender the piece(s) of garments and the case reported to the COE for investigation. However, a candidate shall be allowed to continue with the examination and subsequent examinations during the period of investigation;

c. "Unauthorized Writing"; A candidate is not permitted to enter examination venue with any inscriptions on any body part or clothing that can be construed as an aid to answering examination questions;

d. “Unauthorized absence from examination” includes going out of the examination room, temporarily or otherwise, or staying out of the examination room for an unduly long period, without authorization or permission of the invigilator or one of the invigilators for the examination in question;

e. “Cheating in examination” includes any form or kind of dishonesty or destruction or falsification of any evidence of irregularity;

The Senate may impose such a lesser penalty on a candidate found guilty of commission of an examination Irregularity, depending on the gravity of the facts or circumstances constituting the offence, as the Senate may deem appropriate.

19.9 Plagiarism

(i) A candidate who appropriates the writings or results of other persons, whatever the medium (text, written or electronic, computer programmes, data sets, visual images whether still or moving) and then dishonestly presents them as his/her own shall be considered as guilty of plagiarism.

(ii) A candidate shall be deemed to have committed an act of Plagiarism if a supervisor, examiner, Head of Department, member of the various committees responsible for checking and certifying compliance to approved publication standards or any other person observes the following

(iii) The candidate has submitted or presented the work of another person as his or her own;

(iv) The candidate has submitted the same, or substantially the same work more than once at the same or another institution;

(v) The candidate has fabricated or falsified results/data;

(vi) The candidate has submitted false records, information or documents;

(vii) The candidate has omitted due acknowledgement of the work of another person;

(viii) There is collusion i.e., when two or more candidates collaborate to produce the same work submitted by each, without prior formal permission for such collaboration; and

(ix) The candidate has used, by payment or otherwise, a third party to produce Research Project report or any assignment write-up in whole or in part.

(x) All cases of alleged plagiarism shall be reported to the COE who shall refer them to the Examination Board for investigation.

(xi) Depending on the extent or seriousness of the confirmed plagiarism, the following sanctions shall be applied

a) REJECTION of the Research Project proposal, report or part thereof and therefore the candidate being required to re-write or re-take the research work.

b) DISCONTINUATION from studies

c) DEPRIVATION of a degree, non-degree award or any other academic credentials already awarded by the university

19.10 Publication of Results

(i) The provisional results of candidates in every examination, arranged in a manner as prescribed by Senate or, on that behalf, as provided under examination regulations of the relevant University, College, School or academic Institute approved by Senate and not in conflict with these Regulations, shall be published by the COE soon after the Examination Board meeting but the results shall not be regarded as final until they are confirmed by Senate.

(ii) Publication and custody of the final approved examination results as approved by Senate shall be the responsibility of the DVC (Academic).

(iii) The results may be published on notice boards, newspapers, information systems or websites at the discretion of the relevant College/School/Institute. The anonymity of the student must be protected

in publishing results e.g. using the student's registration number rather than names.

(iv) Senate shall confirm the results of examinations at a time to be determined by Senate.

(v) The final Senate-approved results for each semester and for each academic unit shall be archived in hard-bound booklet with a serial number and date and in a PDF soft copy of the same number and date.

(vi) Feedback on Coursework Assessment (CA) must be continuously provided to students and the cumulative CA marks must be shown to students before they sit for the University Examination. A copy of the students' CA marks must be submitted to the Head of Department and COE at the same time.

19.11 Progress from Year to Year for Engineering Degree and Engineering Diploma & Degree Education Programmes

(i) Candidates who are full time students are required to pass a total minimum of 120 course credits in examinations in the academic year and attain a minimum overall GPA of 2.0 before proceeding to the following year of study.

(ii) A candidate may be allowed to re-sit failed courses in Supplementary Examinations if he or she has attained an overall GPA of 1.8 or above in the First Sitting calculated in accordance with the credit weighting of individual courses. The maxim`um grade obtainable in a Supplementary Examination shall be the minimum passing grade i.e. 'C'.

(iii) A candidate who fails to attain an overall GPA of 1.8 will be discontinued from the courses.

(iv) A candidate who fails in examination(s) which is/are required to make the minimum pass credits for any academic unit after three attempts shall be BARRED from continuing into subsequent academic semester but shall be given the opportunity to retake the course(s) and

examination(s) as last attempt when next offered. A candidate who fails to graduate because of failing examination(s) after three attempts will be given the option of retaking the course(s) and examination(s) as last attempt when next offered.

(v) No candidate shall be allowed to repeat any year of study on academic grounds, except with special permission or approval of the Senate upon recommendation of a College, School or academic Institute Board, and the Senate Undergraduate Studies Committee or a Constituent College Academic Board.

(vi) Carrying over of courses shall be guided by the following

a) A candidate who scored an overall GPA of 2.0 or above after Supplementary Examination, may be allowed to carry over flexibly into the subsequent academic years such number of failed courses as are requisite for the fulfilment of the requirement of passing a total minimum number of course credits for the programme in compliance with regulation 11.9. The minimum overall GPA shall be calculated in accordance with the credits weightage of the individual courses.

b) Carrying over failed courses into subsequent years shall imply repeating the failed courses in the subsequent years by fulfilling all requirements of the course.

c) The maximum grade for a carried over course shall be the minimum passing grade i.e. 'C'.

d) Carryover of elective courses will only be allowed in exceptional circumstances, normally only when those credits are needed to comply with regulation 11.9.

e) All carried over courses shall be cleared within the allowable maximum period of registration otherwise the student will be discontinued from studies. The maximum period of registration is five years for a programme that takes three years and six years for a four-year programme.

(vii) All candidates with pending supplementary or special examinations or with incomplete courses shall be evaluated assuming they would score the maximum attainable grade in the pending examinations and shall be discontinued from studies if they would not obtain the required minimum GPA.

(viii) A candidate with incomplete results for courses, which could not be completed by the end of the year for acceptable reasons, must complete the courses before he/she can be allowed to continue with studies of the following year.

(ix) Final year students who return to the University to clear a carryover or an incomplete shall pay tuition fees and relevant direct costs. Tuition fee shall be paid on a pro-rata basis depending on the number of course credits to be taken out of the annual 120 credits.

(x) To qualify for a degree award, the cumulative total minimum number of course credits shall be a multiple of the minimum number of course credits required per academic year under regulation 11.1 for the duration of each degree programme. That is

a) For a three-year degree programme, such cumulative total minimum shall be 360 credits.

b) For a four-year degree programme, it shall be 480 credits and

c) For a five-year degree programme, it shall be 600 credits.

(xi) Provided that, subject to approval by the Senate, the internal examination regulations of a University, College, School or Academic Institute, shall provide for cumulative maximum number of course credits for which a candidate may register and take for credit.

19.12 Award

A candidate shall qualify for the award registered for if:

(i) He/She has successfully completed all modules for the award and achieved a minimum cumulative Grade Point Average (GPA) equivalent to pass.

(ii) He/She has passed all industrial practical training modules / Teaching Practice / etc.

(iii) He/She has passed projects (where applicable).

(iv) He/She has paid required fees / cleared their no dues.

(v) He/She has fulfilled any other terms and conditions established by the Council.

(vi) The Board of Examiners in the University upon its satisfaction that the standard required under relevant regulations for the award of a degree, diploma, certificate or other award, as the case may be, has been attained by a candidate in University examinations applicable to him/her, may recommend to Senate through the relevant Examination Board that such degree, diploma, certificate or other award be conferred upon or granted to such successful candidate.

(vii) The Senate may confer degrees and grant diplomas, certificates or other awards of the University on or to candidates who satisfy and are recommended in accordance with regulation 13.6 for such conferment or grant by, the Board of Examiners in a College, School or academic Institute.

19.13 Certificates, Certification and Transcripts

(i) The Senate shall issue certificates for degrees, diplomas, certificates or other award to such candidates as shall be declared to have satisfied the appropriate Board of Examiners and shall have been recommended to and approved by the Senate for the conferment or grant of such degree, diploma, certificate or other award.

(ii) A certificate shall be issued only once for the same degree or award.

(iii) Upon application for a transcript, a student or former student shall be given a transcript of his/her academic performance record. The transcript shall be charged a fee as the Council may from time to time prescribe. Any finalist student desirous of obtaining a transcript(s) shall submit an application for a transcript(s), a clearance form and one passport size photograph for the preparation of transcript(s).

(iv) The final grades of all courses taken by a student shall be entered in the transcript.

(v) A student is required to verify the grades/information on his/her transcript/certificate before accepting it. Once taken, no certificate/transcript shall be returned for correction.

(vi) A fee payable as Senate may from time to time prescribe shall be charged for certifying each copy of a degree certificate and academic transcript.

Examination Regulations for the MD Programme

(i) The MD degree is a ten-semester programme and the maximum tenure shall be 14 semesters.

(ii) Registration of full time students shall be once at the beginning of each semester.

(iii) There shall be at least one continuous assessment test (CAT) and regular assessment of competencies for each module/modular course taught during each semester. The field reports shall also be marked and graded as CAT. The CAT and the regular assessment of competencies shall constitute the Formative Assessment (FA) and the final end of module/modular course or rotation examination the Summative Assessment (SA).

(iv) The FA shall contribute 50% of the final grade in the end of module/modular course/rotation university examinations.

(v) The FA and SA shall consist of written (theory paper, quizzes, field reports, assignments, presentations and others) and practical/clinical components (global observation and rating of live/recorded performances, observation of procedures and rating, logbooks, OSPE, OSCE and others). The proportional contribution for written and practical examinations will be 60 and 40% respectively for Basic Sciences and 40% and 60% in Clinical Sciences.

(vi) A candidate will be considered to have passed a course after passing all modules/rotations of the respective course.

(vii) A candidate who passes the examination with a C grade or higher will be declared to have passed the examination. A candidate who scores a GPA of 1.6 or higher, but fails in some course(s) shall be required to supplement in the failed modules in the course(s).

(viii) A candidate who obtains a GPA of less than 1.6 in a semester shall be discontinued from studies.

(ix) A candidate who fails all the courses in an audit year regardless of the GPA shall be discontinued from studies.

(x) A candidate who fails in supplementary examination in basic sciences shall be allowed to carry-over the failed module(s) to the next academic audit year and appear for a second supplementary examination in the failed module(s) of the respective course(s) when next offered during the long vacation provided the GPA is 1.8 or higher. A candidate who fails the second supplementary shall be discontinued from studies

(xi) No candidate shall be allowed to proceed to the clinical year rotations unless and until he/she has passed all semesters 1 to 4 of the programme.

(xii) A candidate who obtains a GPA of 1.8 or higher but less than 2.0 in a supplementary examination in semester 3 and 4 shall be allowed to freeze registration and appear for another supplementary examination when next offered and the maximum freezing period shall be 2 semesters. A student

who fails to clear the failed modules/courses within the two semesters shall be discontinued.

(xiii) A candidate shall not be considered to have passed any clinical course unless and until he/she has passed the clinical components of the examination, whereby 40% is from FA and 60% from the final examination.

(xiv) A candidate who fails junior clerkship clinical rotation examination shall be required to do a supplementary rotation during the long vacation after semester 6. A candidate who fails senior clerkship clinical rotation shall be required to do a supplementary rotation after semester 10. The supplementary rotation is half the duration of that rotation. For rotations, which have less than 6 weeks duration, the period of supplementary rotation will be the full duration. The maximum tenure of 14 semesters shall not be exceeded.

(xv) A candidate with incomplete course work in any semester will not be allowed to sit for end of module/rotation examination.

(xvi) A candidate who passes a supplementary examination at any level shall be awarded a "C" grade equivalent to 2.0 grade points.

(xvii) Progression to semester 9, 10 is subject to completion of clinical rotations and elective period and sitting for University examinations for semesters 7 and 8.

(xviii) A satisfactory elective report from semester 7-8 must be submitted at least 8 weeks prior to the final semester 10 rotation examination failure of which will deem the candidate ineligible for the final examination.

(xix) A student shall be awarded the MD degree after passing all prescribed courses in the MD programme.

Examination regulations for Nursing Programme

The examination regulations include

(i) End of semester examinations results must be released within three weeks from the date of completion of examination.

(ii) Each module taught in a semester will be examined separately at the end of semester.

(iii) A learner will be eligible for the end of semester examination if has successfully passed continuous assessments for each module.

(iv) A student must have been present for at least 85% of the classes to be allowed to sit for end of semester examinations.

Curriculum for Nursing and Midwifery NTA Level (4, 5 & 6)

(i) A learner who fails to attain 50% of continuous assessment for each module shall not be allowed to sit for end of semester examination.

(ii) A learner who did not sit for the end of semester examination for any module due to acceptable reason(s), shall have to do the examination for that module before progressing towards next semester.

(iii) A learner who attains GPA of 2.0 or above should be allowed to supplement the failed module not later than four weeks after released of results.

(iv) A learner who fails end of semester examination with GPA less than 2.0 should be discontinued from the programme.

(v) A learner who fails two supplementary examinations for any module shall be discontinued from studies.

(vi) A learner who falls seriously sick just before or during end of semester examinations or is hospitalized will be allowed to sit the examinations when condition has stabilized; when next offered.

(vii) A learner who feels unable to attempt end of semester examination for any module for genuine reason, should present his/her case in writing four weeks before the date of end of semester examination to the Examination Committee of an institution for consideration.

(viii) A learner will be deemed to have passed the end of semester examination if has achieved a minimum of 50% of the set marks for both theory and practical examination for each module.

Examination Regulations for Pharmacy Eligibility for Examinations

(i) A student must have been present for at least 90% of the classes to be allowed to sit for end of semester examinations.

(ii) A student who fails to meet a minimum of 90% attendance in a particular semester with compelling reasons as determined by the participatory organs shall be allowed to repeat the semester otherwise, he/she shall be discontinued from studies.

(iii) No student shall be allowed to sit for the end of semester examinations unless his/her average continuous assessment in each module is 50% or higher.

(iv) A student who fails to complete assignment(s) or research work in the scheduled time shall be allowed to sit for the end of semester examinations but the results will be INCOMPLETE.

(v) Where a student who fails to fulfill the eligibility requirements stipulated, sits for the end of semester examinations, his/her examination results shall be null and void.

Conduct of Examinations

End of semester examinations shall be conducted under the control and supervision of MoHCDGEC or any other body as the MoHCDGEC shall appoint.

Guidance for Invigilators
Before the examination

(i) Invigilators shall personally collect from the head of the department sealed envelopes containing examination papers and any other materials prescribed in the rubrics at least thirty minutes before the examination

(ii) Invigilators shall be present in the examination room at least twenty minutes before commencement of the examination.

(iii) Invigilators shall admit candidates into the examination room at least twenty minutes before commencement of the examination and ensure that candidates are seated in their right places.

During the examination

(i) No candidate shall be allowed out of the examination room during the first thirty minutes of the examination

(ii) No candidate shall be allowed to leave the examination room during the last thirty minutes.

(iii) Invigilator shall allow five minutes for the candidates to read the examination paper and ensure they have the right paper with correct number of pages.

At the end of examination

(i) Invigilator shall tell the candidates to stop attempting the examination and assemble their work/scripts

(ii) Candidates shall handling their scripts to the invigilator and sign an examination attendance form

(iii) No candidate shall be allowed to leave the examination room before their scripts are collected

(iv) No candidate shall be allowed to leave with any examination materials found in the examination room.

(v) Invigilators shall enter the total of scripts collected and sign in the examination attendance form (Appendix 1) and submit the scripts and the examination attendance form to the head of the department.

Absence from Examinations

(i) A student who fails to appear for a scheduled examination with valid reason (s) shall be allowed to sit for that particular examination when next scheduled. The student shall not be allowed to proceed to the next semester if the missed examination(s) is for a pre-requisite module.

(ii) When a candidate misses an examination without valid reason(s), as determined by participatory organs (i.e. academic committees/boards), the candidate shall be discontinued from the studies

Falling Sick Immediately Before or During Examination

(i) A candidate who falls sick immediately before or during the time of a scheduled examination and is medically unable to proceed (i.e. as certified by a medical officer) shall be allowed to postpone the examination until next scheduled.

(ii) Any student, who is sick and nevertheless decides to take or proceed with an examination, does so at his/her own risk and must abide by the results of the examination.

Reporting Late for Examinations

(i) A candidate, who without valid reason(s), reports late for an examination (more than thirty minutes after commencement of examination) shall not be allowed into the examination room but will be allowed to sit for that particular examination when next scheduled. The candidate shall not be allowed to proceed to the next semester if the missed examination(s) is/are for pre-requisite module(s).

(ii) A candidate, who for valid reason, reports late for an examination (more than thirty minutes after commencement of examination) and pleads in writing to take the examination may, subject to the discretion of the invigilator, be allowed to do the examination within the remaining time at his/her own risk. All cases of late arrivals for examinations shall be reported in writing by the invigilator to head of department.

Students Progression and Disposal

(i) The semester shall be the basic academic audit unit. All modules offered during the semester shall be assessed within that semester, at the end of each module external examiners or moderators shall be invited at the end of the semester. A student shall be allowed to proceed to the next semester if he/she passes end of module examinations in all modules prescribed in a semester.

(ii) For every module there shall be at least two continuous assessment (CA) tests and regular assessment of competencies which shall constitute 60% of summative assessment. The end of module examination shall constitute another 40% of the summative assessment.

Supplementary Examination

(i) A candidate who fails one or more modules shall be allowed to sit for supplementary examination if his/her GPA in that semester is not less than 1.8.

(ii) A candidate who fails one or more modules must sit for supplementary examinations when scheduled before proceeding to the next semester. The student who passes a supplementary examination will be awarded a maximum of "C" grade regardless of his/her score (equivalent to 50% score). The passing of supplementary examination shall take into account the continuous assessment scores.

Repeating the Semester

(i) A candidate who fails to obtain an average of 50% in his/her continuous assessment shall repeat the semester.

(ii) A candidate who fails supplementary examination(s) shall repeat the semester. A candidate who fails a repeated semester shall be discontinued from studies.

(iii) A candidate who fails to meet a minimum of 90% attendance in a particular semester with acceptable grounds as determined by the participatory organs shall repeat the semester.

Discontinuation

(i) A candidate who fails to meet a minimum of 90% attendance in a particular semester without acceptable grounds shall be discontinued from studies.

(ii) When a candidate misses examination(s) without valid reason(s) shall be discontinued from the studies.

(iii) A candidate who obtains a semester GPA of less than 1.8 shall be discontinued from studies.

(iv) A candidate who does not appear for supplementary examination(s) without compelling reason(s) approved by participatory organs shall be discontinued from studies.

(v) A candidate found guilty of an examination irregularity shall be discontinued from studies.

(vi) A candidate who has been disqualified from an examination following his/her walking out of the examination room in protest shall be discontinued from studies.

GRADING SYSTEMS

NTA Level 4 & 5

NTAs Level 4-5			
Score Range	**Grade**	**Grade Points**	**Definition**
80 – 100	A	4	Excellent
65 – 79	B	3	Good
50 – 64	C	2	Satisfactory
40 – 49	D	1	Poor
0 – 39	F	0	Failure
-	I	0	Incomplete
-	Q	0	Disqualified

CA – Continuous Assessment Marks, SE – Semester Examination Marks, NE – Not Eligible, NL – Nil Total, AA – Absent, GPA – Grade Point Average (Given for the candidates who have passed in all the Modules in the current semester).

To calculate GPA

$$GPA = \frac{\Sigma \text{ (Credits x Grade Points)}}{\Sigma \text{ (Credits)}}$$

Award Classification for NTA Level 4 & 5

Class of Award	Cumulative GPA
First Class	3.5 – 4.0
Second Class	3.0 – 3.4
Pass	2.0 – 2.9

NTA Level 6

CA – Continuous Assessment Marks, SE – Semester Examination Marks, NE – Not Eligible, NL – Nil Total, AA – Absent, GPA – Grade Point Average (Given for the candidates who have passed in all the Modules in the current semester), P – Pass, F – Fail,

Award Classification for Ordinary Diploma (NTA Level 6)

Class of Award	Cumulative GPA
First Class	4.4 – 5.0
Upper Second Class	3.5 – 4.3
Lower Second	2.7 – 3.4
Pass	2.0 –2.6

Diploma final year (year-3) GRADING SYSTEM				
NTAs Level 6				
Score Range for Theory Module	**Score Range for Practical / Project / IPTR Module**	**Grade**	**Grade Points**	**Definition**
75 – 100	75 – 100	A	5	Excellent

65 – 74	65 – 74	B+	4	Very Good
55 – 64	55 – 64	B	3	Good
45 – 54	45 – 54	C	2	Satisfactory
35 - 44	35 - 44	D	1	Poor
0 – 34	0 – 34	F	0	Fail
-	-	I	0	Incomplete
-	-	Q	0	Disqualified

UQF Level 8

Degree Programme (UQF LEVEL-8)				
Score Range for Theory Module	**Score Range for Practical / Project / IPTR Module**	**Grade**	**Grade Points**	**Definition**
70 – 100	70 – 100	A	5	Excellent
60 – 69	60 – 69	B+	4	Very Good
50 – 59	50 – 59	B	3	Good
40 – 49	40 – 49	C	2	Satisfactory
35– 39	35 – 39	D	1	Poor
0 - 34	0 - 34	F	0	Failure
-	-	I	0	Incomplete
-	-	Q	0	Disqualified

CA – Continuous Assessment Marks, SE – Semester Examination Marks, NE– Not Eligible, NL – Nil Total, AA – Absent, S – Supplementary, GPA – Grade Point Average (Given for the candidates who have passed in all the Modules in the current semester). P – Pass, F – Fail, SUPP – Supplementary Theory / Practical / Project / IPTR Module Examination.

Award Classification for Degree (UQF Level 8)

Class of Award	**Cumulative GPA**
First Class	4.4 – 5.0
Upper Second Class	3.5 – 4.3

Class of Award	Cumulative GPA
Lower Second	2.7 – 3.4
Pass	2.0 –2.6

Grading system for MD Programmes

Degree Programme				
Score Range for Theory Module/ Theory Cum Practical Module	**Score Range for Practical / Project / Field Module**	**Grade**	**Grade Points**	**Definition**
75 – 100	75 – 100	A	5	Excellent
70 - 74	70 - 74	B+	4	Very Good
60 - 69	60 - 69	B	3	Good
50 - 59	50 - 59	C	2	Satisfactory
45 - 49	45 - 49	D	1	Poor
0 – 44	0 – 44	E	0	Fail
-	-	I	0	Incomplete
-	-	Q	0	Disqualified

CA – Continuous Assessment Marks, SE – Semester Examination Marks, NE – Not Eligible, NL – Nil Total, AA – Absent, GPA – Grade Point Average (Given for the candidates who have passed in all the Modules in the current semester). P – Pass, F – Fail, F* – Failed to score the minimum pass marks in the End Theory / End Practical Examination / Viva Voce.

20. REGULATIONS GOVERNING TRANSFER OF STUDENTS AND CREDIT TRANSFER

20.1 Transfer from One Programme to Another

Students who are recommended to repeat the first year of study may, subject to the approval of the Senate, be allowed to transfer to a programme of their choice provided they meet the entry requirements of the programme.

20.2 Transfer of Students

(i) A student may transfer from any University to SJUIT and vice versa to study in one of the programmes of study provided that

(ii) The applicant's academic entry qualifications in the previous University shall be similar to that required by SJUIT including the respective programme's cut-off point in the relevant year.

(iii) The programme's content of study between the two Universities (institutions) are similar and compatible;

(iv) Grading and assessment criteria of the programmes are compatible and accepted by the Senate;

(v) Expenses paid to SJUIT by the student or requesting University have been accepted by SJUIT.

(vi) The Senate shall regulate on the transfer of grades.

(vii) Student credit transfer is allowed between Universities only

(viii) Credit transfer applies to both undergraduate and postgraduate degree programmes

(ix) Credit transfer can only be allowed if such credits have been obtained within a period of not less than one year and not more than two years

(x) Students discontinued from other universities are not allowed to transfer credits to St. Joseph University In Tanzania

(xi) Students will be required to undertake at least 2/3 of degree programme credits at SJUIT. Maximum credit allowable for transfer, therefore, is 1/3 of the required credits of a SJUIT degree programme.

(xii) SJUIT students on study-abroad programmes shall be allowed to transfer credits obtained from the other university to SJUIT.

20.3 Conditions Governing Credit Transfer from SJUIT to other Universities.

Transfer of credits from SJUIT to other universities will be governed by the regulations of the receiving University.

20.4 Procedures and Administration of Student Credit Transfer

(i) Applications for credit transfer should be submitted to the Deputy Vice Chancellor (Academic), in writing, and attaching copies of all required supporting documents

(ii) All applications shall be scrutinized by relevant committees responsible for admission at the Department, School/ College levels before reaching Senate for approval

(iii) Students transferring from other universities to SJUIT shall apply for credit transfer at least three months before the beginning of the semester they want to join. Cases of SJUIT's study-abroad students shall be dealt with on case-by-case basis.

(iv) Supporting documents for credit transfer application shall include the following

a) Official transcript (to be sent by the other university)
b) Letter of introduction/recommendation from the previous university
c) Course description, catalogue or syllabus (to include number of hours of teaching, method of assessment and grading system)
d) An official translation of the original documents (in case of non-English documents)
e) Photo-attached personal identification documents e.g. Birth certificate, passport or ID
f) Certified copies of the original certificates used to gain admission into the previous university.

The following are reasons that shall be acceptable for credit transfer, in addition to meeting credit transfer criteria

(i) Courses not offered at the University of Registration (applies only for short-term transfers)
(ii) Illness (to be certified by SJUIT medical officer in-charge)
(iii) Exchange programmes
(iv) Refugee situation
(v) Returning resident

Credit transfer applicants must pay a non-refundable fee to be determined from time to time; However, SJUIT students on study-abroad programmes need not pay such fees as they had already paid the fee when applying for admission into the University.

21. COLLEGES AND PROGRAMMES

21.1 St. Joseph College of Engineering and Technology, Mbezi, Dar es Salaam

21.1.1 Introduction

St. Joseph College of Engineering & Technology (SJCET), Dar- es- Salaam is a Campus College of St. Joseph University In Tanzania (SJUIT) is situated along the Morogoro road at Mbezi-Luguruni, Dar es Salaam. It is built on sprawling 30-acres of hilly land. The College provides a conducive atmosphere for the pursuit of education with aims to establish and maintain global standards in the field of education. The students are provided with good conditions to pursue their academic career goals.

21.1.2 Departments and Programmes Offered

The College offers Degree and Diploma programmes in engineering discipline for the following departments as below

i. Department of Civil Engineering and the Built Environment
ii. Department of Mechanical Engineering Department of Electrical,

iii. Electronics and Communication Engineering

iv. Department of Computer Science and Information System Engineering

21.2.3 Department of Civil Engineering and the Built Environment

Bachelor of Engineering in Civil Engineering

(a) List of Modules (up to 2020-21 Academic Year)

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
099 LA 11	Communication Skills	2	2	3	-	1	12
099 MA 12	Engineering Mathematics I	3	2	4	1	-	15
099 PH 13	Engineering Physics	2	2	3	1	2	15
099 CE 14	Basic Civil Engineering	2	2	3	1	-	12
099 ME 15	Basic Mechanical Engineering	2	2	3	1	-	12
099 CS 17	Modern Information System Laboratory	2	1	1	-	2	9
099 ME 18	Engineering Drawing	2	2	1	-	3	12
Total Contact Hours=(30hrs/week*15week)=450hrs+420hrs		**15**	**13**	**18**	**4**	**8**	
Total Credits							**87**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
099 ME 21	Engineering Mechanics	2	2	3	1	-	12
099 MA 22	Engineering Mathematics II	3	2	4	1	-	15
099 CS 23	Computer Programming	2	2	3	1	-	12
099 EE 24	Basic Electrical Engineering	2	2	3	1	-	12
099 EC 25	Basic Electronics Engineering	2	2	3	1	-	12
099 GE 26	Environmental Science and Engineering	2	2	3	1	-	12
099 CS 27	Computer Programming Laboratory	2	2	-	-	2	9
099 ME 28	Workshop Practice	1	2	-	-	3	9
Total Contact Hours=(30hrs/week*15week)=450hrs+480hrs		**16**	**16**	**19**	**6**	**5**	
Total Credits							**93**

Semester IV

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
051 MA31	ENGINEERING MATHEMATICS III	1	4	1	-	9
051 CE 32	BUILDING SCIENCE	1	5	-	-	9
051 CE 33	SURVEYING I	2	4	-	-	9
051 CE 34	ARCHITECTURE	1	4	1	-	9
051 CE 35	MECHANICS OF SOLIDS	1	4	1	-	9
051 CE 36	FLUID MECHANICS	1	4	1	-	9

Practical						
051 CE 37	HYDRAULICS ENGINEERING LABORATORY	3	-	-	3	9
051 CE 38	SURVEY PRACTICAL I	3	-	-	3	9
051 IP 01	INDUSTRIAL PRACTICAL TRAINING I	200	-	-	-	20
	Total Hours	213	25	4	6	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)						**92**

Semester IV

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
051 CE 41	APPLIED HYDRAULIC ENGINEERING	1	5	-	-	9
051 CE 42	CONCRETE AND CONSTRUCTION TECHNOLOGY	2	4	-	-	9
051 MA 43	NUMERICAL METHODS	1	4	1	-	9
051 CE 44	SOIL MECHANICS	1	5	-	-	9
051 CE 45	STRENGTH OF MATERIALS	1	4	1	-	9
051 CE 46	REMOTE SENSING AND GIS	1	4	1	-	9
Practical						
051 CE 47	STRENGTH OF MATERIALS LABORATORY	3	-	-	3	9
051 CE 48	SOIL ENGINEERING LABORATORY	3	-	-	3	9
	Total Hours	13	26	3	6	
(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						**TOTAL CREDITS** **72**

Semester V

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
051 CE 51	STRUCTURAL ANALYSIS I	1	4	1	-	9
051 CE 52	STRUCTURAL DESIGN I	1	4	1	-	9
051 CE 53	SURVEYING II	2	4	-	-	9
051 CE 54	ENVIRONMENTAL ENGINEERING I	1	5	-	-	9
051 CE 55	TRANSPORTATION ENGINEERING I	1	4	1	-	9
051 MA 56	OPERATIONAL RESEARCH	1	4	1	-	9
Practical						
051 CE 57	COMPUTER AIDED BUILDING DRAWING	3	-	-	3	9

051 CE 58	SURVEY PRACTICAL II	3	-	-	3	9
051 IP 02	INDUSTRIAL PRACTICAL TRAINING	200	-	-		20
	Total Hours	213	25	4	6	
(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)						**TOTAL CREDITS** **92**

Semester VI

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
051 CE 61	STRUCTURAL ANALYSIS II	1	4	1	-	9
051 CE 62	STRUCTURAL DESIGN II	1	4	1	-	9
051 CE 63	FOUNDATION ENGINEERING	1	4	1	-	9
051 CE 64	ENVIRONMENTAL ENGINEERING II	2	4	-	-	9
051 CE 65	TRANSPORTATION ENGINEERING II	1	4	1	-	9
051 CE 66	IRRIGATION ENGINEERING	1	4	1	-	9
Practical						
051 CE 67	CONCRETE AND HIGHWAY LABORATORY	3	-	-	3	9
051 CE 69	MINI PROJECT	3	-	-	3	9
Total Hours		13	24	5	6	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						72

Semester VII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
051 CE 71	ESTIMATION AND VALUE ENGINEERING	1	4	1	-	9
051 CE 72	ECONOMICS AND BUSINESS FINANCE FOR CIVIL ENGINEERS	2	4	-	-	9
051 CE 73	CONSTRUCTION MANAGEMENT	1	4	1	-	9
051 MG 74	PROFESSIONAL ETHICS	1	3	-	-	6
	ELECTIVE PAPER-I	1	5	-	-	9
	ELECTIVE PAPER-II	1	5	-	-	9
Practical						
051 CE 77	COMPUTER AIDED DESIGN AND DRAWING	3	-	-	3	9
051 PJ 89	PROJECT PHASE-I	1	-	-	5	9
Total Hours		11	25	2	8	69

TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 690 hrs)	

Semester VIII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
051 MG 81	TOTAL QUALITY MANAGEMENT	1	3	-	-	6
	ELECTIVE PAPER-I	1	5	-	-	9
	ELECTIVE PAPER-II	1	5	-	-	9
Practical						
051 PJ 89	PROJECT PHASE-II	2	-	-	22	36
Total Hours		5	13	-	22	60
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (5 hrs/week x 15 week) = 600 hrs)						

LIST OF ELECTIVE PAPERS

S/N	MODULE CODE	MODULE NAME	Description of Hours				Credits
			IS	L	T	P	
1	051 CE 01	BRIDGE STRUCTURES	1	5	-	-	9
2	051 CE 02	STORAGE STRUCTURES	1	5	-	-	9
3	051 CE 03	DESIGN OF PLATE AND SHELL STRUCTURE	1	5	-	-	9
4	051 CE 04	TALL BUILDING	1	5	-	-	9
5	051 CE 05	STRUCTURAL DYNAMICS	1	5	-	-	9
6	051 CE 06	PREFABRICATED STRUCTURES	1	5	-	-	9
7	051 CE 07	WIND ENGINEERING	1	5	-	-	9
8	051 CE 08	COMPUTER AIDED DESIGN OF STRUCTURES	1	5	-	-	9
9	051 CE 09	PRE-STRESSED CONCRETE STRUCTURES	1	5	-	-	9
10	051 CE 10	INDUSTRIAL STRUCTURES	1	5	-	-	9
11	051 CE 11	SMART STRUCTURES AND SMART MATERIALS	1	5	-	-	9
12	051 CE 12	FINITE ELEMENT TECHNIQUES	1	5	-	-	9
13	051 CE 13	GROUND WATER ENGINEERING	1	5	-	-	9
14	051 CE 14	WATER RESOURCES ENGINEERING	1	5	-	-	9

15	051 CE 15	MANAGEMENT OF IRRIGATION SYSTEMS	1	5	-	-	9
16	051 CE 16	COASTAL ZONE MANAGEMENT	1	5	-	-	9
17	051 CE 17	TRANSPORTATION PLANNING AND SYSTEMS	1	5	-	-	9
18	051 CE 18	TRAFFIC ENGINEERING AND MANAGEMENT	1	5	-	-	9
19	051 CE 19	HOUSING PLANNING AND DESIGN	1	5	-	-	9
20	051 CE 20	RAILWAYS AND AIRPORT ENGINEERING	1	5	-	-	9
21	051 CE 21	URBAN AND REGIONAL DEVELOPMENT	1	5	-	-	9

(b) List of Modules of the Re-Accredited Curriculum (Effective from 2021-22 Academic Year)

SEMESTER II

Module Code	Module Name	Hour Distribution/semester							
		Core/ Elective	L	S/T	AS	IS	P	TOTAL	Credits
MA1101	Engineering Mathematics I	core	60	15	15	30	-	120	12
LA1102	Technical Communication I	core	45	-	-	15	-	60	6
PH 1103	Engineering Physics	core	45	-	7.5	7.5	30	90	9
CH 1104	Engineering Chemistry	core	45	-	7.5	7.5	30	90	9
CE 1105	Basic Civil and Mechanical Engineering	core	60	-	15	15	-	90	9
CS 1106	Programming Languages	core	45	-	7.5	7.5	30	90	9
ME 1107	Engineering Graphics		15	-	7.5	7.5	30	90	6
WS 1108	Workshop Practice I	core	-	-	-	60	60	120	12
Total			315	15	60	120	150	660	72

SEMESTER II

Module Code	Module Name	Hour Distribution							
		Core/ Elective	L	S/T	AS	IS	P	TOTAL	Credits
MA 1209	Engineering Mathematics II	Core	60	15	15	30	-	120	12
LA 1210	Technical Communication II	Core	45	-	-	15	-	60	6
ME 1211	Engineering Mechanics	Core	45	-	7.5	7.5	30	90	9
ES 1212	Environmental Science & Engineering	Core	60	-	15	15	-	90	9

EE 1213	Basic Electrical and Electronics Engineering	Core	60	-	15	15	-	90	9
CS 1214	Python Programming		45	-	7.5	7.5	30	90	9
ME 1215	ENGINEERING GRAPHICS & Computer Aided Drafting		15	-	7.5	7.5	30	60	6
WS 1216	Workshop Practice II	Core	-	-	-	60	60	120	12
Total			330	15	67.5	127.5	120	660	72

SEMESTER III

Module Code	Module Name	Hour Distribution						TOTAL	Credits
		Core/ Elective	L	S/T	AS	IS	P		
MA2101	Engineering Mathematics III	Core	60	15	15	30	-	120	12
CE 2102	Strength of Materials	Core	45	15	15	15	40	120	13
CE 2103	Surveying	Core	45	15	15	15	40	120	13
CE 2104	Fluid Mechanics	Core	45	15	15	15	-	90	9
CE 2105	Construction Planning & Management	Core	45	15	15	15	-	90	9
CE 2106	Architecture	Core	-	-	-	30	60	90	9
CS 2107	Programming using MATLAB	Core	15	-	-	30	45	90	9
Total			255	75	75	150	155	740	74

SEMESTER IV

Module Code	Module Name	Hour Distribution						TOTAL	Credits
		Core/ Elective	L	S/T	AS	IS	P		
MA2208	Numerical Methods	Core	60	15	15	30	-	120	12
CE 2209	Soil Mechanics	Core	45	15	15	15	40	130	13
CE 2210	Advanced Surveying	Core	45	15	15	15	50	140	14
CE 2211	Applied Hydraulics &Machinery	Core	45	15	15	15	40	120	13
CE 2212	Foundation Engineering	Core	45	15	15	15	-	90	9
	Elective 1	Elective	60	-	15	15	-	90	9
IPCE 2214	Industrial Practical Training I		-	-	-	-	-	100	10
Total			105	90	300	75	90	800	80

MODULES FOR SEMESTER V

Module Code	Module Name	Hour Distribution						TOTAL	Credits
		Core/ Elective	L	S/T	AS	IS	P		
CE 3101	Structural Analysis I	Core	45	15	15	15	-	90	9
CE 3102	Concrete Technology	Core	45	15	15	15	-	90	9
CE 3103	Environmental Engineering I	Core	45	15	15	15	-	90	9
CE 3104	Transportation Engineering	Core	45	15	15	15	-	60	9
CE 3105	Irrigation Engineering	Core	45	15	15	15	-	90	9
	Elective 2	Elective	60	-	15	15	-	90	9
CE 3107	Concrete & Highway Laboratory	Core	-	-	-	30	50	80	8
CE 3108	Computer Aided Building Drawing	Core	-	-	-	30	50	80	8
Total			285	75	90	150	100	700	70

SEMESTER VI

Module Code	Module Name	Hour Distribution						TOTAL	Credits
		Core/ Elective	L	S/T	AS	IS	P		
CE 3208	Structural Analysis II	core	45	15	15	15	-	90	9
CE 3209	Design of RC Structures	core	45	15	15	15	-	90	9
CE 3210	Environmental Engineering II	core	45	15	15	15	-	90	9
CE 3211	Design of Steel Structures	core	45	15	15	15	-	60	9
	Elective 3	Elective	45	-	7.5	7.5	-	60	6
	Elective 4	Elective	45	-	7.5	7.5	-	60	6
CE 3214	Environmental Engineering Laboratory	Core	-	-	-	30	60	90	9
CE 3215	Structural Detailing & Drawing Laboratory	Core	-	-	-	30	30	90	6
IPCE 3216	Industrial Practical Training II	Core	-	-	-	-	120	120	12
Total			330	60	90	150	210	840	84

SEMESTER VII

Module Code	Module Name	Hour Distribution						TOTAL	Credits
		Core/ elective	L	S/T	AS	IS	P		
MG 4101	Principles of Management & Professional Ethics	Core	45	-	15	30	-	90	9
CE 4102	Quantity Surveying, Estimation & Valuation	Core	45	15	15	15	50	140	14

	Elective 5	Elective	60	-	15	15	-	90	9
	Elective 6	Elective	45	-	15	15	-	90	9
CE 4105	Computer Aided Structural Analysis	Core	-	-	15	30	65	110	11
PJCE 4106	Project Work Phase I & Viva Voce	Core	-	-	-	105	65	170	17
Total			210	15	75	210	180	690	69

SEMESTER VIII

Module Code	Module Name	Hour Distribution						TOTAL	Credits
		Core/ elective	L	S/T	AS	IS	P		
MG 4207	Entrepreneurship Development	Core	45	-	15	50	-	110	11
	Elective 7	Elective	45	-	15	30	-	90	9
	Elective 8	Elective	45	-	15	30	-	90	9
TS 4210	Technical Seminar	Core				75	15	90	9
PJCE 4211	Project Work Phase II & Viva Voce	Core	-	-	-	-	300	300	30
Total			135	0	45	200	330	710	71

ELECTIVE MODULES

Core Elective Code	Core Electives	L	T	A	IS	P	Credits
	Construction Engineering & Management						
ELCE 0001	Principles of Construction Management	4	-	1	1	-	9
ELCE 0002	Building Construction Practice	4	-	1	1	-	9
ELCE 0003	Construction Engineering Materials	4	-	1	1	-	9
ELCE 0004	Construction Techniques, Equipment & Practice	4	-	1	1	-	9
ELCE 0005	Construction Resource Planning and Management	4	-	1	1	-	9
ELCE 0006	Advanced Construction Project Management	4	-	1	1	-	9
ELCE 0007	Design of Formwork & Scaffolding	4	-	1	1	-	9
	Structural Engineering	4	-	1	1	-	9
ELCE 00011	Computer Aided Design of Structures	4	-	1	1	-	9
ELCE 00012	Tall Buildings	4	-	1	1	-	9
ELCE 00013	Pre-stressed Concrete Structure	4	-	1	1	-	9
ELCE 00014	Bridge Engineering	4	-	1	1	-	9
ELCE 00015	Forensics Civil Engineering	4	-	1	1	-	9
ELCE 00016	Repair and Rehabilitation of Structures	4	-	1	1	-	9
ELCE 00017	Design of Earthquake Resistant Structures	4	-	1	1	-	9
	Transportation Engineering						
ELCE 00021	Traffic Engineering	4	-	1	1	-	9
ELCE 00022	Pavement Engineering	4	-	1	1	-	9
ELCE 00023	Railway Engineering	4	-	1	1	-	9
ELCE 00024	Transportation Systems Planning	4	-	1	1	-	9

ELCE 00025	Intelligent Transportation Systems	4	-	1	1	-	9
ELCE 00026	Urban Planning and Sustainable Development	4	-	1	1	-	9
ELCE 00027	Highway Construction & Management	4	-	1	1	-	9
	Water Resources Engineering						
ELCE 00031	Advanced Hydrology	4	-	1	1	-	9
ELCE 00032	Advanced Irrigation Engineering Design	4	-	1	1	-	9
ELCE 00033	Groundwater Engineering	4	-	1	1	-	9
ELCE 00034	Coastal Engineering and Management	4	-	1	1	-	9
ELCE 00035	Irrigation Water Management	4	-	1	1	-	9
ELCE 00036	Hydrology & Water Resource Engineering	4	-	1	1	-	9
ELCE 00037	Integrated Water Resource Management	4	-	1	1	-	9
	Environmental Engineering						
ELCE 00041	Industrial Waste Management	4	-	1	1	-	9
ELCE 00042	Solid Waste Management	4	-	1	1	-	9
ELCE 00043	Ground Water Contamination and Quality Monitoring and Mode1ing	4	-	1	1	-	9
ELCE 00044	Air Pollution & Control	4	-	1	1	-	9
ELCE 00045	Marine Pollution Monitoring and Modeling	4	-	1	1	-	9
ELCE 00046	Environmental Impact Assessment	4	-	1	1	-	9
ELCE 00047	Advanced Waste Water Treatment Design	4	-	1	1	-	9

Elective Code	Electives	L	T	A	IS	P	Credits
ELCE 00071	Principles of Architecture	3	-	0.5	0.5	-	6
ELCE 00072	GIS & Remote Sensing	3	-	0.5	0.5	-	6
ELCE 00073	Green Building Technology	3	-	0.5	0.5	-	6
ELCE 00074	Finite Element Analysis	3	-	0.5	0.5	-	6
ELCE 00075	Geoinformatics Applications for Civil Engineers	3	-	0.5	0.5	-	6
ELCE 00076	Pre-Fabricated Structures	3	-	0.5	0.5	-	6
ELCE 00077	Total Station & GPS Surveying	3	-	0.5	0.5	-	6
ELCE 00085	Engineering Economics & Cost Analysis	3	-	0.5	0.5	-	6
ELCE 00086	Total Quality Management	3	-	0.5	0.5	-	6
ELCE 00087	Entrepreneurship Deve1opment	3	-	0.5	0.5	-	6
ELCE 00088	Intellectual Property Rights	3	-	0.5	0.5	-	6
ELCE 00089	Disaster Management	3	-	0.5	0.5	-	6
ELCE 00090	Industrial Psychology	3	-	0.5	0.5	-	6

Ordinary Diploma in Civil Engineering

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
00 LA 101	Communication Skills I	2	2	3	-	1	12
00 MA 102	Basic Engineering Mathematics I	3	2	4	1	-	15
00 PH 103	Physics	2	2	4	-	2	15
00 CS 104	Basics of Computer Science	2	2	3	1	-	12
00 ME 107	Workshop Practice	2	1	-	-	3	9
00 CS 108	Office Laboratory	1	2	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+345hrs		**12**	**11**	**14**	**2**	**9**	
Total Credits							**72**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
00 LA 201	Communication Skills II	2	2	3	-	1	12
00 MA 202	Basic Engineering Mathematics II	3	2	4	1	-	15
00 PH 203	Chemistry	2	2	3	1	-	12
00 CS 204	Computer Programming Language	2	2	3	1	-	12
00ME 207	Technical Drawing	2	3	2	-	3	15
00 CS 208	Computer Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+375hrs		**13**	**12**	**15**	**3**	**7**	
Total Credits							**75**
Semester III							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
01 CE 301	Engineering Mechanics	2	1	4	1	-	12
01 CE 302	Construction Materials and Practice	2	1	4	1	-	12
01 CE 303	Surveying	2	1	4	1	-	12
01 CE 307	Civil Engineering Drawing I	2	1	-	-	3	9
01 CE 308	Material Testing Laboratory and Practice I	2	1	-	-	3	9
01 CE 309	Surveying Laboratory Practice I	2	1	-	-	3	9
01 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16

Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**
Semester IV							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
01 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
01 CE 401	Theory of Structures	2	1	4	1	-	12
01 CE 402	Environmental Engineering	2	1	4	1	-	12
01 CE 403	Transportation Engineering	2	1	4	1	-	12
01 CE 407	Material Testing Laboratory and Practice II	2	1	-	-	3	9
01 CE 408	CAD in Civil Engineering Drawing Laboratory I	2	1	-	-	3	9
01 CE 409	Surveying Laboratory II	2	1	-	-	3	9
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**
Semester V							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
01 CE 501	Structural Engineering	2	1	4	1	-	12
01 CE 502	Quantity Surveying	2	1	4	1	-	12
01 CE 503	Hydraulics	2	1	4	1	-	12
01 CE 507	CAD in Civil Engineering Drawing Laboratory II	2	1	-	-	3	9
01 CE 508	Construction Laboratory	2	1	-	-	3	9
01 CE 509	Hydraulics and Plumbing Laboratory	2	1	-	-	3	9
01 PJ 609	Project	4				1	9
01 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(25 hrs/week*15week)=375 hrs+330hrs		**16**	**6**	**12**	**3**	**10**	
Total Credits							**79**
Semester VI							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
01 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
01 CE 601	Construction Management with MIS	2	2	3	1	-	12
01 CE 602	Concrete Technology and Advanced Construction	2	2	3	1	-	12
	Elective I	2	2	3	1	-	12

	Elective II	2	2	3	1	-	12
01 CE 608	Computer Application in Civil Engineering Lab	2	1	-	-	3	9
01 PJ 609	Project	4	-	-	-	6	15
Total Contact Hours=(25 hrs/week*15week)=375 hrs+345hrs		**14**	**9**	**12**	**4**	**9**	
Total Credits							**88**

ELECTIVES

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
01 CE 611	Elements of Interior Design	2	2	3	1	-	12
01 CE 612	Water Resource Management	2	2	3	1	-	12
01 CE 613	Town Planning	2	2	3	1	-	12

21.2.4 Department of Mechanical Engineering

Bachelor of Engineering in Mechanical Engineering

(a) List of Modules (up to 2020-21 Academic Year)

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
Semester I							
099 LA 11	Communication Skills	2	2	3	-	1	12
099 MA 12	Engineering Mathematics I	3	2	4	1	-	15
099 PH 13	Engineering Physics	2	2	3	1	2	15
099 CE 14	Basic Civil Engineering	2	2	3	1	-	12
099 ME 15	Basic Mechanical Engineering	2	2	3	1	-	12
099 CS 17	Modern Information System Laboratory	2	1	1	-	2	9
099 ME 18	Engineering Drawing	2	2	1	-	3	12
Total Contact Hours=(30hrs/week*15week)=450hrs+420hrs		**15**	**13**	**18**	**4**	**8**	
Total Credits							**87**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
099 ME 21	Engineering Mechanics	2	2	3	1	-	12
099 MA 22	Engineering Mathematics II	3	2	4	1	-	15
099 CS 23	Computer Programming	2	2	3	1	-	12
099 EE 24	Basic Electrical Engineering	2	2	3	1	-	12
099 EC 25	Basic Electronics Engineering	2	2	3	1	-	12
099 GE 26	Environmental Science and Engineering	2	2	3	1	-	12

099 CS 27	Computer Programming Laboratory	2	2	-	-	2	9
099 ME 28	Workshop Practice	1	2	-	-	3	9
Total Contact Hours=(30hrs/week*15week)=450hrs+480hrs		**16**	**16**	**19**	**6**	**5**	
Total Credits							**93**
Semester III							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
052 MA 31	Engineering Mathematics III	3	1	5	1	-	15
052 ME 32	Engineering Thermodynamics	2	1	4	1	-	12
052 ME 33	Theory of Machines	2	1	4	1	-	12
052 ME 34	Design and Drawing of Machine Element	2	1	4	1	-	12
052 ME 35	Fluid Mechanics and Machinery	2	1	4	1	-	12
052 ME 36	Engineering Materials and Metallurgy	2	1	4	1	-	12
052 CE 37	Fluid Mechanics and Machinery Laboratory	2	2	-	-	2	9
052 CE 38	Computer Aided Machine Drawing	2	2	-	-	2	9
052 IP 01	Industrial Practical Training I (4 weeks)	-	-	-	-	-	10
Total Contact Hours=(35hrs/week*15week)=525hrs+405hrs		**17**	**10**	**25**	**6**	**4**	
Total Credits							**103**

Semester IV							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
052 IP 01	Industrial Practical Training I (4 weeks)	-	-	-	-	-	10
052 ME 41	Dynamics of Machines	2	1	4	1	-	12
052 ME 42	Heat And Mass Transfer	2	1	4	1	-	12
052 ME 43	Numerical Methods for Engineering Applications	3	1	5	1	-	15
052 EE 44	Electrical Machines and Drives	2	1	4	1	-	12
052 ME 45	Strength of Materials	2	1	4	1	-	12
052 ME 46	Refrigeration and Air Conditioning	2	1	4	1	-	12
052 ME 47	Strength of Materials Laboratory	2	2	-	-	2	9
052 ME 48	Thermal and Refrigeration Laboratory	2	2	-	-	2	9
Total Contact Hours=(35hrs/week*15week)=525hrs+405hrs		**17**	**10**	**25**	**6**	**4**	
Total Credits							**103**
Semester V							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
052 ME 51	Production Technology	2	1	4	1	-	12
052 ME 52	Machine Tools	2	1	4	1	-	12
052 ME 53	Engineering Metrology	2	1	4	1	-	12
052 EE 54	Measurements and Controls	2	1	4	1	-	12

052 ME 55	Gas Dynamics and Space Propulsion	2	1	4	1	-	12
052 MA 56	Operational Research	3	1	5	1	-	15
052 ME 57	Manufacturing Technology Laboratory	2	2	-	-	2	9
052 ME 58	Kinetics and Dynamics Laboratory	2	2	-	-	2	9
052 IP 02	Industrial Practical Training I (4 weeks)	-	-	-	-	-	10
Total Contact Hours=(35hrs/week*15week)=525hrs+405hrs		**17**	**10**	**25**	**6**	**4**	
Total Credits							**103**

Semester VI

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
052 IP 02	Industrial Practical Training I (4 weeks)	-	-	-	-	-	10
052 ME 61	Thermal Engineering	2	1	5	1	-	12
052 ME 62	Power Plant Engineering	2	1	4	1	-	12
052 ME 63	Design of Jigs, Fixtures and Press Tools	2	1	4	1	-	12
052 ME 64	Design of Transmission System	2	1	4	1	-	12
052 ME 65	Hydraulics and Pneumatics Controls	2	1	4	1	-	12
052 ME 66	Automobile Engineering	2	1	4	-	1	12
052 ME 67	Thermal Engineering Laboratory	2	2	-	-	2	9
052 ME 68	Design and Fabrication Project	2	2	-	-	2	9
Total Contact Hours=(35hrs/week*15week)=525hrs+405hrs		**17**	**10**	**25**	**5**	**5**	
Total Credits							**103**

Semester VII

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
052 ME 71	Mechatronics	2	1	4	1	-	12
052 ME 72	Computer Integrated Manufacturing	2	1	4	1	-	12
052 ME 73	Process Planning and Cost Estimation	2	1	4	1	-	12
052 MG 74	Professional Ethics	1	-	3	-	-	6
	Elective I	1	1	4	-	-	9
	Elective II	1	1	4	-	-	9
052 ME 77	Mechatronics Laboratory	2	2	-	-	2	9
052 ME 78	Computer Aided Simulation and Analysis Laboratory	2	2	-	-	2	9
052 PJ 89	Project Phase I	2	1	1	-	2	9
Total Contact Hours=(33hrs/week*15week)=495hrs+375hrs		**15**	**10**	**24**	**3**	**6**	
Total Credits							**87**

Semester VIII

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
052 MG 81	Total Quality Management	1	-	3	-	-	6
	Elective II	1	1	4	-	-	9

	Elective III	1	1	4	-	-	9
052 PJ 89	Project Phase II	10	-	-	-	14	36
Total Contact Hours=(25hrs/week*15week)=375hrs+225hrs		**13**	**2**	**11**	**-**	**14**	
Total Credits							**60**
Grand Total Credits = (87 + 93 + 103 + 103 + 103 + 103+ 87 + 60)							**739**

ELECTIVE					
Elective Code	**Elective Module Name**	**L**	**T**	**P**	**Credits**
052 ME 01	Energy Conservation and Management	3	-	-	9
052 ME 02	Composite Materials and Mechanics	3	-	-	9
052 ME 03	Turbo Machinery	3	-	-	9
052 ME 04	Computational Fluid Dynamics	3	-	-	9
052 ME 05	Design of Pressure Vessels and Piping	3	-	-	9
052 ME 06	Flexible Manufacturing System	3	-	-	9
052 ME 07	Finite Element Analysis				
052 ME 08	Fundamentals of Nano Science	3	-	-	9
052 ME 09	Probability and Statistics	3	-	-	9
052 ME 10	Advanced IC Engines	3	-	-	9
052 ME 11	Theory of Metal Forming	3	-	-	9
052 ME 12	Entrepreneurship Development	3	-	-	9
052 ME 13	Marketing Management	3	-	-	9
052 ME 14	Product Design and Development	3	-	-	9
052 ME 15	Principles of Management	3	-	-	9

(b) List of Modules of the Re-Accredited Curriculum (Effective from 2021-22 Academic Year)

MODULES FOR SEMESTER 1

Course	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot.***	***Cr***
MA1101	Engineering Mathematics I	Core	60	15	15	30	-	120	12
LA1102	Technical Communication I	Core	45	-	-	15	-	60	6
PH 1103	Engineering Physics	Core	45	-	7.5	7.5	30	90	**9**
CH 1104	Engineering Chemistry	Core	45	-	7.5	7.5	30	90	9
CE 1105	Basic Civil and Mechanical Engineering	Core	60	-	15	15	-	90	9
CS 1106	Programming Languages	Core	45	-	7.5	7.5	30	90	9
ME 1107	Engineering Graphics	Core	15	-	7.5	7.5	30	60	6
WS 1108	Workshop Practice I	Core	15	-	-	30	75	120	12
Sub-Total									**72**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***

MA 1209	Engineering Mathematics II	Core	60	15	15	30	-	120	12
LA 1210	Technical Communication II	Core	45	-	-	15	-	60	6
ME 1211	Engineering Mechanics	Core	45	-	7.5	7.5	30	90	9
ES 1212	Environmental Science & Engineering	Core	60	-	15	15	-	90	9
EE 1213	Basic Electrical and Electronics Engineering	Core	60	-	15	15	-	90	9
CS 1214	Python Programming	Core	45	-	7.5	7.5	30	90	9
ME 1215	Engineering Graphics & Computer Aided Drafting	Core	15	-	7.5	7.5	30	60	6
WS 1216	Workshop Practice II	Core	15	-	-	30	75	120	12
Sub-Total									**72**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA 2101	Engineering Mathematics III	Core	60	15	15	30	-	120	12
ME 2102	Strength of Materials	Core	45	15	15	15	30	120	12
EE 2103	Electrical Machines, Drives & Control	Core	60	-	15	15	30	120	12
ME 2104	Fluid Mechanics	Core	45	-	15	30	30	120	12
ME 2105	Engineering Thermodynamics	Core	45	-	15	30	30	120	12
ME 2106	Design of Machine Elements	Core	45	-	30	15	-	90	9
CS 2107	Programming using MATLAB	Core	15	-	-	15	30	60	6
Sub-Total									**75**

MODULES FOR SEMESTER 2

Course	***Course Name***	***Statu***	***L***	***T/S***	***A***	***IS***	***P***	***Tot.***	***Cr***
MA 2208	Operation Research for Engineers	Core	60	-	15	15	-	90	9
ME 2209	Kinematics of Machinery	Core	60	15	15	15	15-	120	12
ME 2210	Manufacturing Technology I	Core	45	-	15	30	30	120	12
ME 2211	Applied Hydraulics & Machinery	Core	45	-	15	30	30	120	12
ME 2212	Thermal Engineering	Core	45	-	15	30	30	120	12
	Core Elective 1	Core	60	-	15	15	-	90	9
IPME	Industrial Practical Training	Core	-	-	-	-	-	-	10
Sub-Total									**76**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
ME 3101	Engineering Metrology & Instrumentation	Core	45	-	30	15	30	120	12

ME 3102	Dynamics of Machinery	Core	60	15	15	15	15	120	12
ME 3103	Manufacturing Technology II	Core	45	-	15	30	30	120	12
ME 3104	Power Plant Engineering	Core	60	15	15	30	-	120	12
ME 3105	Heat & Mass Transfer	Core	45	-	15	30	30	120	12
	Core Elective 2	Core	60	-	15	15	-	90	9
ME 3107	Computer Aided Machine Design Drawing	Core	15	-	-	15	30	60	6
Sub-Total									**75**

MODULES FOR SEMESTER 2

Course	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot.***	***Cr***
ME 3208	Design of Transmission System	Core	60	15	15	30	-	120	12
ME 3209	Process Planning & Cost Estimation	Core	60	15	15	30	-	120	12
ME 3211	Finite Element Analysis	Core	60	-	15	15	30	120	12
	Core Elective 3	Core	60	-	15	15	-	90	9
	Elective 1	Elective	45	-	7.5	7.5	-	60	6
ME 3214	CAD/CAM	Core	15	-	-	15	30	60	6
CS 3213	Internet of Things	Core	60		15	15			9
IPME 3215	Industrial Practical Training II		-	-	-	-	-	-	10
Sub-Total									**76**

MODULES FOR SEMESTER

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MG 4101	Principles of Management & Professional Ethics	Core	45	-	15	30	-	90	9
ME 4102	Mechatronics	Core	45	-	15	30	30	120	12
ME 4103	Gas Dynamics Jet Propulsion	Core	60	-	30	30	-	120	12
ME 4104	Refrigeration & Air Conditioning	Core	45	-	15	30	30	120	12
	Core Elective 4	Core elective	60	-	15	15	-	90	9
	Elective 2	Elective	45	-	7.5	7.5	-	60	6
PJME 4106	Project Work Phase I & Viva Voce	Core	-	-	-	105	45	150	15
Sub-Total									**75**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MG 4207	Entrepreneurship Development	Core	45	-	15	30	-	90	9
	Elective 3	Elec	45	-	7.5	7.5	-	60	**6**
	Elective 4	Elec	45	-	7.5	75	-	60	**6**
TS 4210	Technical Seminar	Core	-	-	-	75	15	90	**9**
PJME 4211	Project Work Phase II & Viva Voce	Core	-	-	-	-	300	300	30
Sub-Total									**60**

MODULES FOR SEMESTER 1

LIST OF CORE ELECTIVE MODULES

Core Elective Code	***Core Elective Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
General									
EL 01	Plant Layout & Material Handling		60	-	15	15	-	90	9
EL 02	Wind & Solar Energy		60	-	15	15	-	90	9
EL 03	Automobile Engineering		60	-	15	15	-	90	9
EL 04	Industrial Engineering		60	-	15	15	-	90	9
EL 05	Energy Engineering & Management		60	-	15	15	-	90	9
EL 06	Quality Control & Reliability Engineering		60	-	15	15	-	90	9
EL 07	Design of Jigs, Fixtures and Press Tools		60	-	15	15	-	90	9
EL 08	Product Design and Development		60	-	15	15	-	90	9
Manufacturing Technology									
EL 09	Engineering Materials & Metallurgy		60	-	15		15	90	9
EL 10	Metal Forming & Powder Metallurgy		60	-	15	15	-	90	9
EL 11	CNC Technology		60	-	15	15	-	90	9
EL 12	Unconventional Machining Process		60	-	15	15	-	90	9
EL 13	Precision Engineering		60	-	15	15	-	90	9
EL 06	Quality Control & Reliability Engineering		60	-	15	15	-	90	9

EL 07	Design of Jigs, Fixtures and Press Tools		60	-	15	15	-	90	9
EL 08	Product Design and Development		60	-	15	15	-	90	9
Mechatronics									
EL 14	Digital Circuit & Logic Design		60	-	15	15	-	90	9
EL 15	Microprocessor & Microcontroller Application		60	-	15	15	-	90	9
EL 16	Control System Engineering		60	-	15	15	-	90	9
EL 17	Programmable Logic Controller		60	-	15	15	-	90	9
EL 18	Sensors & Transducers		60	-	15	15	-	90	9
EL 19	Design of Mechatronics System		60	-	15	15	-	90	9
EL 20	Embedded System Design		60	-	15	15	-	90	9
EL 09	Engineering Materials and Metallurgy		60			15	15	90	9
Automobile Engineering									
EL 21	Automotive Engines		60	-	15	15	-	90	9
EL 22	Automotive Chassis		60	-	15	15	-	90	9
EL 23	Automotive Transmission		60	-	15	15	-	90	9
EL 24	Automotive Electrical & Electronics		60	-	15	15	-	90	9
EL 25	Two & Three Wheelers		60	-	15	15	-	90	9
EL 26	Vehicle Body Engineering & Safety		60	-	15	15	-	90	9
EL 27	Vehicle Dynamics		60	-	15	15	-	90	9
EL 28	Hybrid Vehicle Technology		45	-	7.5	7.5	-	60	6
EL 29	Hydraulics & Pneumatics		45	-	7.5	7.5	-	60	6
EL 30	Renewable Energy Sources		45	-	7.5	7.5	-	60	6
EL 31	Fuzzy Logic & Its Application		45	-	7.5	7.5	-	60	6
EL 33	Robotics & Automation		45	-	7.5	7.5	-	60	6
EL 34	Principles of Robotics		45	-	7.5	7.5	-	60	6
EL 35	Engineering Economics & Cost Analysis		45	--	7.5	7.5	--	60	6
EL 36	Total Quality Management		45	-	7.5	7.5	-	60	6
EL 37	Intellectual Property Rights		45	--	7.5	7.5	--	60	6
EL 38	Disaster Management		45	--	7.5	7.5	--	60	6
EL 39	Industrial Psychology		45	-	7.5	7.5	-	60	6
EL 09	Engineering Materials and Metallurgy		60			15	15	90	9

Ordinary Diploma in Mechanical Engineering

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
00 LA 101	Communication Skills I	2	2	3	-	1	12
00 MA 102	Basic Engineering Mathematics I	3	2	4	1	-	15
00 PH 103	Physics	2	2	4	-	2	15
00 CS 104	Basics of Computer Science	2	2	3	1	-	12
00 ME 107	Workshop Practice	2	1	-	-	3	9
00 CS 108	Office Laboratory	1	2	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+345hrs		**12**	**11**	**14**	**2**	**9**	
Total Credits							**72**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
00 LA 201	Communication Skills II	2	2	3	-	1	12
00 MA 202	Basic Engineering Mathematics II	3	2	4	1	-	15
00 CH 203	Chemistry	2	2	3	1	-	12
00 CS 204	Computer Programming Language	2	2	3	1	-	12
00ME 207	Technical Drawing	2	3	2	-	3	15
00 CS 208	Computer Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+375hrs		**13**	**12**	**15**	**3**	**7**	
Total Credits							**75**
Semester III							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
02 ME 301	Mechanics of Materials	2	1	4	1	-	12
02 ME 302	Manufacturing Process	2	1	4	1	-	12
02 ME 303	Fluid Mechanics & Fluid Power	2	1	4	1	-	12
02 ME 307	Machine Drawing	1	1	1	-	3	9
02 EC 308	Mechanics of Materials & Fluid Mechanics Lab	2	1	-	-	3	9
02 ME 309	Workshop I (Smithy, Foundry & Welding)	2	1	-	-	3	9
02 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(25 hrs/week*15week)=375 hrs+255hrs		**11**	**6**	**13**	**3**	**9**	
Total Credits							**79**

Semester IV							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
02 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
02 ME 401	Applied Thermodynamics	2	1	4	1	-	12
02 ME 402	Machine Shop Technology	2	1	4	1	-	12
02 EE 403	Electrical & Electronics Engineering	2	1	4	1	-	12
02 ME 407	Thermodynamics Laboratory	2	1	-	-	3	9
02 EE 408	Electrical & Electronics Engineering Laboratory	2	1	-	-	3	9
02 ME 409	Workshop II (Lathe & Metrology)	2	1	-	-	3	9
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**
Semester V							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
02 ME 501	Design of Machine Elements	2	1	4	1	-	12
02 ME 502	Thermal Engineering	2	1	4	1	-	12
	Elective Theory I	2	1	4	1	-	12
02 ME 507	Auto CAD Laboratory	2	1	-	-	3	9
02 ME 508	Workshop III (Special Machine)	2	1	-	-	3	9
	Elective Laboratory I	2	1	-	-	3	9
02 PJ 609	Project Work	4				1	9
02 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(25 hrs/week*15week)=375 hrs+330hrs		**16**	**6**	**12**	**3**	**10**	
Total Credits							**79**
Semester VI							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
02 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
02 ME 601	Industrial Engineering & Management	2	2	3	1	-	12
02 ME 602	CAD / CAM	2	2	3	1	-	12
	Elective Theory II	2	2	3	1	-	12
02 ME 607	CAD / CAM Laboratory	2	1	-	-	3	9
	Elective Laboratory II	2	1	-	-	3	9
02 PJ 609	Project Work	4	-	-	-	6	15
Total Contact Hours=(24 hrs/week*15week)=360 hrs+330hrs		**14**	**8**	**9**	**3**	**12**	
Total Credits							**85**

Electives

02 ME 611	Foundry Technology	2	3	1	-	12
02 ME 612	Refrigeration & Air Conditioning	2	3	1	-	12
02 ME 613	Welding Technology	2	3	1	-	12
02 ME 621	Metrology & Machine Tool Testing	2	3	1	-	12
02 ME 622	Farm Equipment Technology	2	3	1	-	12
02 ME 617	Foundry Technology Laboratory	2	-	-	3	9
02 ME 618	Refrigeration & Air Conditioning Laboratory	2	-	-	3	9
02 ME 619	Welding Technology Laboratory	2	-	-	3	9
02 ME 627	Metrology & Machine Tool Testing Laboratory	2	-	-	3	9
02 EE 628	Farm Equipment Technology Laboratory	2	-	-	3	9

21.2.5 Department of Electrical Electronics and Communication Engineering

Bachelor of Engineering in Electrical and Electronics Engineering

(a) List of Modules (up to 2020-21 Academic Year)

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
099 LA 11	Communication Skills	2	2	3	-	1	12
099 MA 12	Engineering Mathematics I	3	2	4	1	-	15
099 PH 13	Engineering Physics	2	2	3	1	2	15
099 CE 14	Basic Civil Engineering	2	2	3	1	-	12
099 ME 15	Basic Mechanical Engineering	2	2	3	1	-	12
099 CS 17	Modern Information System Laboratory	2	1	1	-	2	9
099 ME 18	Engineering Drawing	2	2	1	-	3	12
Total Contact Hours=(30hrs/week*15week)=450hrs+420hrs		**15**	**13**	**18**	**4**	**8**	
Total Credits							**87**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
099 ME 21	Engineering Mechanics	2	2	3	1	-	12
099 MA 22	Engineering Mathematics II	3	2	4	1	-	15
099 CS 23	Computer Programming	2	2	3	1	-	12
099 EE 24	Basic Electrical Engineering	2	2	3	1	-	12
099 EC 25	Basic Electronics Engineering	2	2	3	1	-	12

099 GE 26	Environmental Science and Engineering	2	2	3	1	-	12
099 CS 27	Computer Programming Laboratory	2	2	-	-	2	9
099 ME 28	Workshop Practice	1	2	-	-	3	9
Total Contact Hours=(30hrs/week*15week)=450hrs+480hrs		**16**	**16**	**19**	**6**	**5**	
Total Credits							**93**

Semester III

Theory						
053MA 31	ENGINEERING MATHEMATICS III	1	4	1	-	9
053 EC 32	DIGITAL ELECTRONICS	2	3	1	-	9
053 EE 33	ELECTRIC CIRCUIT ANALYSIS	1	3	2	-	9
053 ME 34	THERMODYNAMICS	1	4	1	-	9
053 EE 35	ELECTRICAL MACHINES – I	1	4	1	-	9
053 EE 36	ELECTRO MAGNETIC THEORY	1	4	1	-	9
Practical						
053 EE 37	ELECTRIC CIRCUIT LABORATORY	3	-	-	3	9
053 EE 38	ELECTRICAL MACHINES LABORATORY-I	3	-	-	3	9
053 IP 01	INDUSTRIAL PRACTICAL TRAINING I	200	-	-	-	20
Total Hours		13	22	7	6	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)						**92**

Semester IV

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
053 EE	POWER ELECTRONICS	1	4	1	-	9
053 EC 42	COMMUNICATION ENGINEERING	2	4	-	-	9
053 EE 43	ELECTRICAL MACHINES –II	1	3	2	-	9
053 EC 44	NETWORK ANALYSIS AND SYNTHESIS	1	3	2	-	9
053 CS 45	OBJECT ORIENTED PROGRAMMING	1	3	-	2	9
053 EC 46	ELECTRONIC DEVICES AND CIRCUITS	1	4	1	-	9
Practical						
053 EE 47	POWER ELECTRONICS LABORATORY	3	-	-	3	9
053 EE 48	ELECTRICAL MACHINES LABORATORY-II	3	-	-	3	9
Total Hours		13	21	6	8	**72**

TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs ,** **Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)**	

Semester V

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
053 EE 51	TRANSMISSION & DISTRIBUTION	1	3	2	-	9
053 EE 52	MEASUREMENTS & INSTRUMENTATION	1	5	-	-	9
053 EE 53	SOLID STATE DRIVES	1	4	1	-	9
053 EC 54	LINEAR INTEGRATED CIRCUITS	2	4	-	-	9
053 ME 55	POWER PLANT ENGINEERING	1	4	1	-	9
053 EE 56	DESIGN OF ELECTRICAL APPARATUS	1	3	2	-	9
Practical						
053 EC 57	ELECTRONIC CIRCUITS AND IC LABORATORY	3	-	-	3	9
053 EE 58	MEASUREMENTS AND INSTRUMENTATION LABORATORY	3	-	-	3	9
053 IP 02	INDUSTRIAL PRACTICAL TRAINING	200	-	-	-	20
Total Hours		13	23	6	6	
TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs ,** **Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)**						**92**

Semester VI

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
053 EE 61	RENEWABLE ENERGY SOURCE	1	4	1	-	9
053 EC 62	DIGITAL SIGNAL PROCESSING(common)	1	3	2	-	9
053 EE 63	PROTECTION AND SWITCH GEAR	2	4	-	-	9
053 EE 64	POWER SYSTEM ANALYSIS	1	3	2	-	9
053 EC 65	MICROPROCESSOR AND MICROCONTROLLER APPLICATIONS	1	4	1	-	9
53 EE 606	CONTROL SYSTEMS	1	3	2	-	9
Practical						
053 EC 67	MICROPROCESSOR AND MICRO CONTROLLER LABORATORY	3	-	-	3	9
053 PJ 69	MINI PROJECT	3	-	-	3	9
	Total Hours	13	21	8	6	**72**

TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)**	

Semester VII

Subject Code	Subject Name	Description of Hours				Credits
		IS	**L**	**T**	**P**	
Theory						
053 EE 71	HIGH VOLTAGE ENGINEERING	1	4	1	-	9
053 EE 72	POWER SYSTEM CONTROL	1	4	1	-	9
053 MG 73	PRINCIPLES OF MANAGEMENT (common)	1	3	-	-	6
053MG 74	PROFESSIONAL ETHICS(common)	1	3	-	-	6
	ELECTIVE THEORY –I	2	4	-	-	9
	ELECTIVE THEORY –II	2	4	-	-	9
Practical						
053 EE 77	CONTROL SYSTEMS AND SIMULATION LABORATORY	3	-	-	3	9
053 EE 78	POWER SYSTEM SIMULATION LABORATORY	3	-	-	3	9
053 PJ 80	PROJECT PHASE-I	1	-	-	5	9
	Total Hours	15	22	2	11	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (15 hrs/week x 15 week) = 750 hrs)						**75**

Semester VIII

Subject Code	Subject Name	Description of Hours				Credits
		IS	**L**	**T**	**P**	
Theory						
053MG 81	TOTAL QUALITY MANAGEMENT (common)	1	3	-	-	6
	ELECTIVE III	1	5	-	-	9
	ELECTIVE IV	1	5	-	-	9
Practical						
053PJ 89	PROJECT PHASE –II	2	-	-	22	36
	Total Hours	5	13	-	22	
TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs ,** **Total Hours = 525 hrs + (5 hrs/week x 15 week) = 600 hrs)**						**60**

LIST OF ELECTIVE PAPERS

S/N	SUBJECT CODE	SUBJECT NAME	HOUR DISTRIBUTION				Credits
			IS	L	T	P	
1	053 EE 01	SPECIAL ELECTRICAL MACHINES	1	5	-	-	9
2	053 EE 02	COMPUTER AIDED DESIGN OF ELECTRICAL APPARATUS	1	5	-	-	9
3	053 EE 03	POWER ELECTRONIC INSTRUMENT	1	5	-	-	9
4	053 EE 04	ADVANCED POWER ELECTRONIC SYSTEMS	1	5	-	-	9
5	053 EE 05	EHV AC & DC TRANSMISSION	1	5	-	-	9
6	053 EE 06	POWER SYSTEM OPERATIONS	1	5	-	-	9
7	053 EE 07	POWER SYSTEM TRANSIENTS	1	5	-	-	9
8	053 EE 08	NEURAL NETWORKS AND APPLICATIONS TO POWER SYSTEMS	1	5	-	-	9
9	053 EE 09	FUZZY SET THEORY AND APPLICATION TO POWER SYSTEMS	1	5	-	-	9
10	053 EE 10	KNOWLEDGE BASED SYSTEMS	1	5	-	-	9
11	053 EE 11	ELECTRIC ENERGY UTILIZATION AND CONSERVATION	1	5	-	-	9
12	053 EE 12	ADVANCED CONTROL SYSTEMS	1	5	-	-	9
13	053 EE 13	INTELLIGENT CONTROLLERS	1	5	-	-	9
14	053 EE 14	BIO-MEDICAL INSTRUMENTATION	1	5	-	-	9
15	053EC 15	MICRO CONTROLLER BASED SYSTEM DESIGN	1	5	-	-	9
16	053 CS 16	DATABASE MANAGEMENT SYSTEM	1	5	-	-	9
17	053 CS 17	VISUAL LANGUAGE AND ITS APPLICATION TO ELECTRICAL ENGINEERING	1	5	-	-	9
18	053 CS 18	COMPUTER NETWORKS	1	5	-	-	9
19	053 EE 19	CREATIVITY, INNOVATION AND NEW PRODUCT DEVELOPMENT	1	5	-	-	9
20	053 EE 20	SOLID STATE RELAYS	1	5	-	-	9
21	053 EE 21	SOFT COMPUTING	1	5	-	-	9
22	053 EE 22	POWER PLANT INSTRUMENTATION	1	5	-	-	9
23	053 EE 23	ROBOTICS AND AUTOMATION	1	5	-	-	9
24	053 EE 24	MEDICAL INSTRUMENTATION	1	5	-	-	9
25	053 EE 25	HVDC TRANSMISSION	1	5	-	-	9
26	053EC 26	VLSI DESIGN	1	5	-	-	9
27	053 EE 27	EMBEDDED CONTROL OF ELECTRICAL DRIVES	1	5	-	-	9
28	053 CS 28	COMPUTER ARCHITECTURE	1	5	-	-	9
29	053 LA 29	COMMUNICATION SKILLS FOR ENGINEERS	1	5	-	-	9

(b) List of Modules of the Re-Accredited Curriculum (Effective from 2021-22 Academic Year)

MODULES FOR SEMESTER I

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA1101	Engineering Mathematics I	Core	60	15	15	30	-	120	12
LA1102	Technical Communication I	Core	45	-	-	15	-	60	6
PH 1103	Engineering Physics	Core	45	-	7.5	7.5	30	90	**9**
CH 1104	Engineering Chemistry	Core	45	-	7.5	7.5	30	90	9
CE 1105	Basic Civil and Mechanical Engineering	Core	60	-	15	15	-	90	9
CS 1106	Programming Languages	Core	45	-	7.5	7.5	30	90	9
ME 1107	Engineering Graphics	Core	15	-	7.5	7.5	30	60	6
WS 1108	Workshop Practice - I	Core	-	-	-	60	60	120	12
Sub-Total									**72**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA 1209	Engineering Mathematics II	Core	60	15	15	30	-	120	12
LA 1210	Technical Communication II	Core	45	-	-	15	-	60	6
ME 1211	Engineering Mechanics	Core	45	-	7.5	7.5	30	90	9
ES 1212	Environmental Science & Engineering	Core	60	-	15	15	-	90	9
EE 1213	Basic Electrical and Electronics Engineering	Core	60	-	15	15	-	90	9
CS 1214	Python Programming	Core	45	-	7.5	7.5	30	90	9
ME 1215	ENGINEERING GRAPHICS & Computer Aided Drafting	Core	15	-	7.5	7.5	30	60	6
WS 1216	Workshop Practice II	Core	-	-	-	60	60	120	12
Sub-Total									**72**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA 2101	Engineering Mathematics III	Core	60	15	15	30	-	120	12
EE 2102	Electromagnetic Field Theory	Core	60	15	15	30	-	120	12
EE 2103	Electric Circuit Theory	Core	60	15	15	30		120	12
EC 2104	Electronic Device & Circuits	Core	45	-	15	30	30	120	12
EE 2105	Electrical Machines I	Core	45	-	15	30	30	120	12
EE 2106	Digital Circuit & Logic Design	Core	45	-	15	30	30	120	12
CS 2107	Programming Using MATLAB	Core	15	-	15	15	30	60	6
Sub-Total									**78**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA 2208	Probability & Queuing Theory	Core	60	15	15	30	-	120	12
EE 2209	Power Plant Engineering	Core	60	-	15	15	-	90	9
EE 2210	Control Systems Engineering	Core	60	-	15	15	30	120	12
EE 2211	Measurements & Instrumentation	Core	45	-	15	30	-	120	12
EE 2212	Electrical Machines II	Core	60	-	15	15	30	120	12
	Core Elective 1	Core	60	-	15	15	30	90	9
IPEE2214	Industrial Practical Training I	Core		-				100	10
Sub-Total									**76**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
EE 3101	Power Transmission & Distribution	Core	60	-	30	30	-	120	12
EC 3102	Microprocessor & Microcontroller Applications	Core	45	-	15	30	30	120	12
EC 3103	Power Electronics	Core	45	-	15	30	30	120	12
EC 3104	Linear Integrated Circuits	Core	45	-	15	30	30	120	12

EE 3105	Design of Electrical Machines	Core	60	-	15	15	-	90	9
	Core Elective 2	Core	60	-	15	15		90	9
EE 3107	PCB Designing & Service of Domestic Appliances	Core		-			30	60	6
Sub-Total									**72**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
EE 3208	Power System Analysis	Core	60	30	15	15	-	120	12
EE 3209	Special Electrical Machines	Core	45	-	15	15	30	120	12
EE 3210	Power System, Protection & Switch Gear	Core	60	-	15	15	30	120	12
EC 3211	Digital Signal Processing	Core	45	-	15	30	30	120	12
	Core Elective 3	Core	60	-	15	15	-	90	9
CS 3213	Internet of Things	Core	60	-	15	15		90	9
EE 3214	Power System Simulation Laboratory	Core		-		30	30	60	6
IPEE 3215	Industrial Practical Training II	Core						100	10
Sub-Total									**79**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MG 4101	Principles of Management & Professional Ethics	Core	45	-	15	30	-	90	9
EE 4102	Renewable Energy Resources	Core	45	-	15	30	30	120	12
EE 4103	Design, Estimation & Costing of Industrial Electrical System	Core	45	-	15	30	30	120	12
	Core Elective 4	Core	60	-	15	30		90	9
	Elective 2	Core	60	-	15	7.5	-	60	6
PJEE 4106	Project Work Phase I & Viva Voce	Core	-	-	15		45	150	15
Sub-Total									**63**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MG 4207	Entrepreneurship Development	Core	45		15	30	-	90	9
	Elective 2	Core	45	-	7.5	7.5		60	6
	Elective 3	Core	45	-	7.5	7.5		60	6
TSEE 4210	Technical Seminar	Core		-	-	75	15	90	9
PJEE4204	Project Work Phase II & Viva Voce	Core		-	-	15	20	300	30
Sub-Total									**60**

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
General		ELECTIVE							
ELEE 0001	High Voltage Engineering	ELECTIVE	60	-	15	15		90	9
ELEE 0002	Bio-Medical Instrumentation	ELECTIVE	60	-	15	15		90	9
ELEE0003	Solid State Drives	ELECTIVE	60	-	15	15		90	9
ELEE0004	Power Generation System	ELECTIVE	60	-	15	15		90	9
ELEE0005	VLSI Design	ELECTIVE	60	-	15	15		90	9
ELEE0006	Electrical Installation, Testing, Commissioning & Maintenance	ELECTIVE	60	-	15	15		90	9
ELEE0007	Embedded System Design	ELECTIVE	60	-	15	15		90	9
Energy Engineering									
ELEE0011	Solar Energy Systems	ELECTIVE	60	-	15	15		90	9
ELEE0012	Wind Energy & Conversion System	ELECTIVE	60	-	15	15		90	9
ELEE 0013	Energy Audit & Energy Regulation	ELECTIVE	60	-	15	15		90	9
ELEE0015	Energy Engineering & SCADA	ELECTIVE	60	-	15	15		90	9
ELEE0016	Solar Photovoltaic System	ELECTIVE	60	-	15	15		90	9

ELEE0017	Electric Hybrid Vehicle	ELECTIVE	60	-	15	15		90	9
Electrical Drives & Control									
ELEE0001	High Voltage Engineering	ELECTIVE	60	-	15	15		90	9
ELEE0003	Solid State Drives	ELECTIVE	60	-	15	15		90	9
ELEE0007	Embedded System Design	ELECTIVE	60	-	15	15		90	9
ELEE0021	Electric Drives	ELECTIVE	60	-	15	15		90	9
ELEE0022	Advanced Control System	ELECTIVE	60	-	15	15		90	9
ELEE0023	Network Analysis and Synthesis	ELECTIVE	60	-	15	15		90	9
ELEE0024	Industrial Drives & Control	ELECTIVE	60	-	15	15		90	9
Power System									
ELEE0001	High Voltage Engineering	ELECTIVE	60	-	15	15		90	9
ELEE0004	Power Generation System	ELECTIVE	60	-	15	15		90	9
ELEE0031	HVDC Transmission	ELECTIVE	60	-	15	15		90	9
ELEE0032	Power System Operation & Control	ELECTIVE	60	-	15	15		90	9
ELEE0033	Power Quality	ELECTIVE	60	-	15	15		90	9
ELEE0034	Power System & Smart Grid	ELECTIVE	60	-	15	15		90	9
ELEE0035	Sensors & Transducers	ELECTIVE	60	-	15	15		90	9
Instrumentation & Control									
ELEE0002	Bio-Medical Instrumentation	ELECTIVE	60	-	15	15		90	9
ELEE0024	Industrial Drives & Control	ELECTIVE	60	-	15	15		90	9
ELEE0041	Measurements System & Transducers	ELECTIVE	60	-	15	15		90	9
ELEE0042	Industrial Instrumentation	ELECTIVE	60	-	15	15		90	9
ELEE0043	Process Control Instrumentation Technology	ELECTIVE	60	-	15	15		90	9
ELEE0044	Analytical Instrumentation	ELECTIVE	60	-	15	15		90	9

ELEE0045	Biosensors & Transducers	ELECTIVE	60	-	15	15		90	9
ELECTIVE									
ELEE0071	Electrical Safety Standards & Practice	ELECTIVE	30	-	15	15		60	6
ELEE 0072	Cellular Mobile Communication	ELECTIVE	30	-	15	15		60	6
ELEE 0073	Green Building Technology	ELECTIVE	30	-	15	15		60	6
ELEE 0076	Computer Organization & Architecture	ELECTIVE	30	-	15	15		60	6
ELEE 0077	Fiber Optics & Laser Instrumentation	ELECTIVE	30	-	15	15		60	6
ELEE 0078	Programmable Logic Controller	ELECTIVE	30	-	15	15		60	6
ELEE 0081	Fuzzy Logic & Its Application	ELECTIVE	30	-	15	15		60	6
ELEE 0082	Internet of Things	ELECTIVE	30	-	15	15		60	6
ELEE 0083	Robotics & Automation	ELECTIVE	30	-	15	15		60	6
ELEE 0084	Principles of Robotics	ELECTIVE	30	-	15	15		60	6
ELEE 0085	Engineering Economics & Cost Analysis	ELECTIVE	30	-	15	15		60	6
ELEE 0086	Total Quality Management	ELECTIVE	30	-	15	15		60	6
ELEE 0087	Entrepreneurship Development	ELECTIVE	30	-	15	15		60	6
ELEE 0088	Intellectual Property Rights	ELECTIVE	30	-	15	15		60	6
ELEC 0089	Disaster Management	ELECTIVE	30	-	15	15		60	6
ELEC 0090	Industrial Psychology	ELECTIVE	30	-	15	15		60	6

Bachelor of Engineering in Electronics and Communication Engineering

(a) List of Modules (up to 2020-21 Academic Year)

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
099 LA 11	Communication Skills	2	2	3	-	1	12
099 MA 12	Engineering Mathematics I	3	2	4	1	-	15

099 PH 13	Engineering Physics	2	2	3	1	2	15
099 CE 14	Basic Civil Engineering	2	2	3	1	-	12
099 ME 15	Basic Mechanical Engineering	2	2	3	1	-	12
099 CS 17	Modern Information System Laboratory	2	1	1	-	2	9
099 ME 18	Engineering Drawing	2	2	1	-	3	12
Total Contact Hours=(30hrs/week*15week)=450hrs+420hrs		**15**	**13**	**18**	**4**	**8**	
Total Credits							**87**

Semester II

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
099 ME 21	Engineering Mechanics	2	2	3	1	-	12
099 MA 22	Engineering Mathematics II	3	2	4	1	-	15
099 CS 23	Computer Programming	2	2	3	1	-	12
099 EE 24	Basic Electrical Engineering	2	2	3	1	-	12
099 EC 25	Basic Electronics Engineering	2	2	3	1	-	12
099 GE 26	Environmental Science and Engineering	2	2	3	1	-	12
099 CS 27	Computer Programming Laboratory	2	2	-	-	2	9
099 ME 28	Workshop Practice	1	2	-	-	3	9
Total Contact Hours=(30hrs/week*15week)=450hrs+480hrs		**16**	**16**	**19**	**6**	**5**	
Total Credits							**93**

Semester III

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
054 MA 31	ENGINEERING MATHEMATICS III	1	4	1	-	9
054 EC 32	DIGITAL ELECTRONICS	2	4	-	-	9
054 EC 33	ELECTRONIC CIRCUITS- I	1	4	1	-	9
054 EE 34	CIRCUIT THEORY	1	3	2	-	9
054 EC 35	ELECTRO MAGNETIC FIELD	1	3	2	-	9
054 EC 36	SIGNALS AND SYSTEMS	1	3	2	-	9
Practical						
054 EE 37	ELECTRIC CIRCUITS AND MACHINES LAB	3	-	-	3	9
054 EC 38	ELECTRONIC DEVICES AND CIRCUITS LABORATORY	3	-	-	3	9
054 IP 01	INDUSTRIAL PRACTICAL TRAINING	200	-	-	-	20
Total Hours			21	8	6	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)						92

Semester IV

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
054 MA 41	RANDOM PROCESS	1	4	1	-	9
054 EC 42	ELECTRONIC CIRCUITS- II	1	3	2	-	9
054 EC 43	COMMUNICATION THEORY AND SYSTEMS	1	4	1	-	9
054 CS 44	PROGRAMMING DATA STRUCTURE	2	4	-	-	9
054 EC 45	LINEAR INTEGRATED CIRCUITS	1	4	1	-	9
054 EE 46	MEASUREMENTS AND INSTRUMENTATION	1	5	-	-	9
Practical						
054 EC 47	LINEAR INTEGRATED CIRCUITS LAB	3	-	-	3	9
054 EC 48	ELECTRONIC CIRCUITS DESIGN LAB	3	-	-	3	9
Total Hours		13	22	7	6	72
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						

Semester V

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
054 EC 51	MICROPROCESSOR AND MICROCONTROLLER APPLICATIONS	1	4	1	-	9
054 EC 52	DIGITAL COMMUNICATION	1	3	2	-	9
054 EC 53	DIGITAL SIGNAL PROCESSING	1	3	2	-	9
054 EE 54	CONTROL SYSTEM	1	3	2	-	9
054 EC 55	TRANSMISSION LINES AND WAVEGUIDES	1	4	1	-	9
054 CS 56	COMPUTER ARCHITECTURE	2	4	-	-	9
Practical						
054 EC 57	DIGITAL SIGNAL PROCESSING LAB	3	-	-	3	9
054 EC 58	MICROPROCESSOR AND MICROCONTROLLER LAB	3	-	-	3	9
54 IP 002	INDUSTRIAL PRACTICAL TRAINING	-	-	-	-	20
Total Hours		13	21	8	6	92
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)						

Semester VI

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
054 EC 61	MICROWAVE ENGINEERING	1	4	1	-	9
054 EC 62	VLSI DESIGN	1	4	1	-	9
054 EC 63	TELECOMMUNICATION SWITCHING AND NETWORKS	1	4	1	-	9
054 CS 64	COMPUTER COMMUNICATION AND NETWORKS	1	4	1	-	9
054 EC 65	ANTENNAS AND PROPAGATION	2	3	1	-	9
054 EC 66	OPTICAL COMMUNICATION	1	4	1	-	9
Practical						
054 EC 67	MICROWAVE ANDOPTICAL COMMUNICATION LABORATORY	3	-	-	3	9
054 EC 69	MINI PROJECT	3	-	-	3	9
Total Hours			23	6	6	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						72

Semester VII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
054 EC 71	SATELLITE COMMUNICATION	1	4	1	-	9
054 EC 72	TELEVISION ENGINEERING	1	4	1	-	9
054 MG 73	PRINCIPLES OF MANAGEMENT	1	3		-	6
054 MG 74	PROFESSIONAL ETHICS	1	3	-	-	6
	ELECTIVE I	2	4	-	-	9
	ELECTIVE II	2	4	-	-	9
Practical						
054 EC 77	ELECTRONIC SYSTEM DESIGN LAB	3	-	-	3	9
054 EC 78	COMMUNICATION SYSTEM LAB	3	-	-	3	9
054 PJ 89	PROJECT PHASE-I	1	-	-	5	9
Total Hours		15	22	2	11	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (15 hrs/week x 15 week) = 750 hrs)						75

Semester VIII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
Theory						
054 MG 81	TOTAL QUALITY MANAGEMENT	1	3	-	-	6
	ELECTIVE II	1	5	-	-	9

	ELECTIVE III	1	5	-	-	9
Practical						
054 PJ 89	PROJECT PHASE II	-	-	-	22	36
Total Hours		3	13	-	22	60
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						

LIST OF ELECTIVE PAPERS

S/N	Subject Code	Subject Name	Description of Hours				Credits
			IS	L	T	P	
1	054 CS 01	OPERATING SYSTEM	1	5	-	-	9
2	054EC 02	COMPUTER HARDWARE AND INTERFACING	1	5	-	-	9
3	054EC 03	ADVANED MICROPROCESSOR	1	5	-	-	9
4	054 CS 04	OBJECT ORIENTED PROGRAMMING	1	5	-	-	9
5	054 EE 05	POWER ELECTRONICS	1	5	-	-	9
6	054EC 06	INDUSTRIAL ELECTRONICS	1	5	-	-	9
7	054 EC 07	MEDICAL ELECTRONICS	1	5	-	-	9
8	054 EC 08	OPTO ELECTRONICS DEVICE	1	5	-	-	9
9	054 EC 09	ADVANCED ELECTRONICS SYSTEM DESIGN	1	5	-	-	9
10	054 EC 10	COMPUTER AIDED ANALYSIS AND DESIGN	1	5	-	-	9
11	054 EC 11	NANO ELECTRONICS	1	5	-	-	9
12	054 EC 12	MOBILE COMMUNICATION	1	5	-	-	9
13	054 EC 13	MOBILE ADHOC NETWORKS	1	5	-	-	9
14	054 EC 14	RADAR & NAVIGATION AIDS	1	5	-	-	9
15	054 EC 15	ELECTROMAGNETIC INTERFACE & COMPATIBILITY	1	5	-	-	9
16	054 EC 16	ENGINEERING ACOUSTICS	1	5	-	-	9
17	054 EC 17	INTEGRATED SERVICE DIGITAL NETWORK	1	5	-	-	9
18	054 CS 18	INTERNET AND JAVA	1	5	-	-	9
19	054 EC 19	TELECOMMUNICATION .SYSTEM MODELING & SIMULATION	1	5	-	-	9
20	054 CS 20	DIGITAL IMAGE PROCESSING	1	5	-	-	9
21	054 EC 21	ADVANCED DIGITAL SIGNAL PROCESSING	1	5	-	-	9

(b) List of Modules of the Re-Accredited Curriculum (Effective from 2021-22 Academic Year)

MODULES FOR SEMESTER I

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA1101	Engineering Mathematics I	Core	60	15	15	30	-	120	12
LA1102	Technical Communication I	Core	45	-	-	15	-	60	6
PH 1103	Engineering Physics	Core	45	-	7.5	7.5	30	90	**9**
CH 1104	Engineering Chemistry	Core	45	-	7.5	7.5	30	90	9
CE 1105	Basic Civil and Mechanical Engineering	Core	60	-	15	15	-	90	9
CS 1106	Programming Languages	Core	45	-	7.5	7.5	30	90	9
ME 1107	Engineering Graphics	Core	15	-	7.5	7.5	30	60	6
WS 1108	Basic Civil & Mechanical Engineering Workshop	Core	-	-	-	60	60	120	12
Sub-Total									**72**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA 1209	Engineering Mathematics II	Core	60	15	15	30	-	120	12
LA 1210	Technical Communication II	Core	45	-	-	15	-	60	6
ME 1211	Engineering Mechanics	Core	45	-	7.5	7.5	30	90	9
ES 1212	Environmental Science & Engineering	Core	60	-	15	15	-	90	9
EE 1213	Basic Electrical and Electronics Engineering	Core	60	-	15	15	-	90	9
CS 1214	Python Programming	Core	45	-	7.5	7.5	30	90	9
ME 1215	ENGINEERING GRAPHICS & Computer Aided Drafting	Core	15	-	7.5	7.5	30	60	6
WS 1216	Basic Electrical & Electronics Engineering Workshop	Core	-	-	-	60	60	120	12
Sub-Total									**72**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA2101	Engineering Mathematics III	Core	60	15	15	30	-	120	12
EC2102	Network Analysis	Core	60	15	15	30	-	90	12
EC 2103	Electromagnetic Waves & Transmission Lines	Core	60	-	15	15		90	**9**
EC 2104	Electronic Device & Circuits	Core	45	-	15	30	30	120	12
EC 2105	Electronics Measurements & Instrumentation	Core	45	-	15	30	30	120	12
EC2106	Digital Circuit & Logic Design	Core	45	-	15	30	30	120	12
EC2107	Programming Using MATLAB	Core	15	-	15	15	30	60	6
Sub-Total									**75**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MA 2208	Probability & Queuing Theory	Core	60	15	15	30	-	120	12
EC 2209	Signals & Systems	Core	60	15	15	30	-	120	12
EE 2210	Control Systems Engineering	Core	60	-	15	15	30	120	12
EC 2211	Linear Integrated Circuits	Core	45	-	15	30	-	120	12
EC 2212	Analog Communication	Core	60	-	15	15	30	120	12
	Core Elective 1	Core	60	-	15	15	30	90	9
IPEC2214	Industrial Practical Training I	Core		-				100	10
Sub-Total									**79**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
EC 3101	Antennas & Wave Propagation	Core	60	-	30	30	-	120	12
EC 3102	Microprocessor & Microcontroller Applications	Core	45	-	15	30	30	120	12
EC 3103	Digital Communication	Core	45	-	15	30	30	120	12

EC 3104	VLSI Design	Core	45	-	15	30	30	120	12
CS 3105	Data Communication & Network	Core	60	-	15	15	-	90	9
	Core Elective 2	Core	60	-	15	15		90	9
EC 3107	PCB Designing & Service of Electronic Devices	Core		-			30	60	6
Sub-Total									**72**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
EC 3208	Wireless Communication	Core	60		15	15	-	90	9
EC 3208	Wireless Communication	Core	60		15	15	-	90	9
EC 3209	Optical Communication	Core	45	-	15	15	30	120	12
EC 3210	Microwave Engineering	Core	60	-	15	15	30	120	12
EC 3211	Digital Signal Processing	Core	45	-	15	30	30	120	12
	Elective 1	Core	45	-	7.5	7.5		60	6
CS 3213	Internet of Things	Core	60	-	15	15		90	9
EC 3214	Advanced Simulation Laboratory	Core		-		30	30	60	6
IPEC3215	Industrial Practical Training II	Core		-				100	10
Sub-Total									**76**

MODULES FOR SEMESTER 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MG 4101	Professional & Business Ethics	Core	45	-	15	30	-	90	9
EC 4102	Medical Electronics	Core	45	-	15	30	30	120	12
EC 4103	Embedded System Design	Core	45	-	15	30	30	120	12
	Core Elective 3	Core	60	-	15	30		90	9
	Elective 2	Core	60	-	15	7.5	-	60	6

PJ 4106	Project Work Phase I & Viva Voce	Core	-	-	15		45	150	15
Sub-Total									**63**

MODULES FOR SEMESTER 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
MG 4207	Entrepreneurship Development	Core	45		15	30	-	90	9
	Elective 3	Core	45	-	7.5	7.5		60	6
	Elective 4	Core	45	-	7.5	7.5		60	6
TSEC 4210	Technical Seminar	Core		-	-	75	10	90	9
PJEC 4211	Project Work Phase II & Viva Voce	Core		-	-	15	20	300	30
Sub-Total									**60**

LIST OF ELECTIVE MODULES

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Cr***
General		Core							
ELEC 0001	Satellite Communication	Core	60	-	15	15		90	9
ELEC 0002	Biomedical Instrumentation	Core	60	-	15	15		90	9
ELEC 0003	Industrial Electronics	Core	60	-	15	15		90	9
ELEC 0004	Television & Video Engineering	Core	60	-	15	15		90	9
ELEC 0005	Cryptography & Network Security	Core	60	-	15	15		90	9
ELEC 0006	Renewable Energy Resources	Core	60	-	15	15		90	9
ELEC 0007	Fiber Optics & Laser Instrumentation	Core	60	-	15	15		90	9
Medical Electronics		Core							
ELEC 0002	Biomedical Instrumentation	Core	60	-	15	15		90	9
ELEC 0011	Biomedical Signal Processing	Core	60	-	15	15		90	9
ELEC 0012	Medical Informatics		60	-	15	15		90	9
ELEC 0013	Diagnostics & Therapeutics Equipment		60	-	15	15		90	9

ELEC 0014	Tele-Health Technology		60	-	15	15		90	9
ELEC 0015	Troubleshooting of Bio-Medical Equipment		60	-	15	15		90	9
ELEC 0016	Medical Imaging Systems		60	-	15	15		90	9
Electronics & Instrumentation									
ELEC 0002	Biomedical Instrumentation		60	-	15	15		90	9
ELEC 0003	Industrial Electronics		60	-	15	15		90	9
ELEC 0007	Fiber Optics & Laser Instrumentation		60	-	15	15		90	9
ELEC 0021	Transducers & Instrumentation		60	-	15	15		90	9
ELEC 0022	Digital Instrumentation		60	-	15	15		90	9
ELEC 0023	Biosensors & Transducers		60	-	15	15		90	9
ELEC 0024	Power Plant Instrumentation		60	-	15	15		90	9
ELEC 0025	Virtual Instrumentation		60	-	15	15		90	9
	Communication & Networking								
ELEC 0001	Satellite Communication		60	-	15	15		90	9
ELEC 0005	Cryptography & Network Security		60	-	15	15		90	9
ELEC 0031	RADAR & Navigational Aids		60	-	15	15		90	9
ELEC 0032	Wireless Sensor Networks		60	-	15	15		90	9
ELEC 0033	RFID & Applications		60	-	15	15		90	9
ELEC 0034	Telecommunication Switching & Networks		60	-	15	15		90	9
ELEC 0035	Wireless Network		60	-	15	15		90	9
VLSI Design									
ELEC 0041	ASIC Design		60	-	15	15		90	9
ELEC 0042	Advanced Digital System Design		60	-	15	15		90	9
ELEC 0043	VLSI Circuits & Systems		60	-	15	15		90	9

ELEC 0044	CAD for VLSI Design		60	-	15	15		90	9
ELEC 0045	Low Power VLSI Design		60	-	15	15		90	9
ELEC 0046	CMOS VLSI Design		60	-	15	15		90	9
ELEC 0047	Nano Electronics		60	-	15	15		90	9
Electives									
ELEC 0071	Transmission Lines & Wave Guides		30	-	15	15		60	6
ELEC 0072	Cellular Mobile Communication		30	-	15	15		60	6
ELEC 0073	Advanced Digital Signal Processing		30	-	15	15		60	6
ELEC 0074	Mobile Application Development using Android		30	-	15	15		60	6
ELEC 0075	Digital Image Processing		30	-	15	15		60	6
ELEC 0076	Computer Organization & Architecture		30	-	15	15		60	6
ELEC 0077	Computer Networks		30	-	15	15		60	6
ELEC 0078	Programmable Logic Controller		30	-	15	15		60	6
ELEC 0081	Fuzzy Logic & Its Application		30	-	15	15		60	6
ELEC 0083	Robotics & Automation		30	-	15	15		60	6
ELEC 0084	Principles of Robotics		30	-	15	15		60	6
ELEC 0085	Engineering Economics & Cost Analysis		30	-	15	15		60	6
ELEC 0086	Total Quality Management		30	-	15	15		60	6
ELEC 0088	Intellectual Property Rights		30	-	15	15		60	6
ELEC 0089	Disaster Management		30	-	15	15		60	6
ELEC 0090	Industrial Psychology		30	-	15	15		60	6

Ordinary Diploma in Electrical and Electronics Engineering

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
00 LA 101	Communication Skills I	2	2	3	-	1	12
00 MA 102	Basic Engineering Mathematics I	3	2	4	1	-	15
00 PH 103	Physics	2	2	4	-	2	15
00 CS 104	Basics of Computer Science	2	2	3	1	-	12
00 ME 107	Workshop Practice	2	1	-	-	3	9
00 CS 108	Office Laboratory	1	2	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+345hrs		**12**	**11**	**14**	**2**	**9**	
Total Credits							**72**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
00 LA 201	Communication Skills II	2	2	3	-	1	12
00 MA 202	Basic Engineering Mathematics II	3	2	4	1	-	15
00 CH 203	Chemistry	2	2	3	1	-	12
00 CS 204	Computer Programming Language	2	2	3	1	-	12
00ME 207	Technical Drawing	2	3	2	-	3	15
00 CS 208	Computer Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+375hrs		**13**	**12**	**15**	**3**	**7**	
Total Credits							**75**
Semester III							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
03 EE 301	Electrical Circuit Theory	2	1	4	1	-	12
03 EE 302	Electrical Machines I	2	1	4	1	-	12
03 EE 303	Electronic Devices & Circuits	2	1	4	1	-	12
03 EE 307	Electrical Circuits Laboratory	2	1	-	-	3	9
03 EE 308	Electrical Machines Laboratory I	2	1	-	-	3	9
03 EE 309	Electronic Device and Circuits Laboratory	2	1	-	-	3	9
03 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	

Total Credits	**79**

Semester IV							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
03 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
03 EE 401	Electrical Machine II	2	1	4	1	-	12
03 EE 402	Measurement and Instrumentation	2	1	4	1	-	12
03 EE 403	Analog and Digital Electronics	2	1	4	1	-	12
03 EE 407	Electrical Machine Laboratory II	2	1	-	-	3	9
03 EE 408	Measurement and Instrumentation Laboratory	2	1	-	-	3	9
03 EE 409	Analog and Digital Electronics Laboratory	2	1	-	-	3	9
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**
Semester V							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
03 EE 501	Power System I	2	1	4	1	-	12
03 EC 502	Microprocessor and Microcontrollers	2	1	4	1	-	12
	Elective Theory I	2	1	4	1	-	12
03 EE 507	Electrical Wiring, Winding and Estimation Laboratory	2	1	-	-	3	9
03 EC 508	Microprocessor and Microcontrollers Laboratory	2	1	-	-	3	9
	Elective Laboratory I	2	1	-	-	3	9
03 PJ 609	Project Work	4				1	9
03 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(25 hrs/week*15week)=375 hrs+330hrs		**16**	**6**	**12**	**3**	**10**	
Total Credits							**79**
Semester VI							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
03 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
03 EE 601	Power System II	2	2	3	1	-	12
03 EE 602	Generation, Transmission and Switch Gear	2	2	3	1	-	12
	Elective Theory II	2	2	3	1	-	12

03 EE 607	Computer Aided Electrical Drawing Laboratory	2	1	-	-	3	9
	Elective II Laboratory	2	1	-	-	3	9
03 PJ 609	Project Work	4	-	-	-	6	15
Total Contact Hours=(24 hrs/week*15week)=360 hrs+330hrs		**14**	**8**	**9**	**3**	**12**	
Total Credits							**85**

Electives

03 CS 611	Programming in C++	2	3	1	-	12
03 EE 612	Control of Electrical Machines	2	3	1	-	12
03 EE 613	Non Conventional Energy Sources	2	3	1	-	12
03 EE 621	Electrical Machine Design	2	3	1	-	12
03 EE 622	Power Electronics	2	3	1	-	12
03 CS 623	Computer Hardware Servicing	2	3	1	-	12
03 EE 631	Programmable Logic Controller	2	3	1	-	12
03 CS 617	Programming in C++ Laboratory	2	-	-	3	9
03 EE 618	Control of Electrical Machines Laboratory	2	-	-	3	9
03 EE 619	Non Conventional Energy Sources Laboratory	2	-	-	3	9
03 EE 627	Electrical Machine Design Laboratory	2	-	-	3	9
03 EE 628	Power Electronics Laboratory	2	-	-	3	9
03 EE 629	Computer Hardware Servicing Laboratory	2	-	-	3	9
03 EE 637	Programmable Logic Controller Laboratory	2	-	-	3	9

Ordinary Diploma in Electronics and Communication Engineering

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
Semester I							
00 LA 101	Communication Skills I	2	2	3	-	1	12
00 MA 102	Basic Engineering Mathematics I	3	2	4	1	-	15
00 PH 103	Physics	2	2	4	-	2	15
00 CS 104	Basics of Computer Science	2	2	3	1	-	12
00 ME 107	Workshop Practice	2	1	-	-	3	9
00 CS 108	Office Laboratory	1	2	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+345hrs		**12**	**11**	**14**	**2**	**9**	
Total Credits							**72**

Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
00 LA 201	Communication Skills II	2	2	3	-	1	12
00 MA 202	Basic Engineering Mathematics II	3	2	4	1	-	15
00 PH 203	Chemistry	2	2	3	1	-	12
00 CS 204	Computer Programming Language	2	2	3	1	-	12
00ME 207	Technical Drawing	2	3	2	-	3	15
00 CS 208	Computer Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+375hrs		**13**	**12**	**15**	**3**	**7**	
Total Credits							**75**
Semester III							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
04 EC 301	Electronics Device and Circuits	2	1	4	1	-	12
04 EC 302	Electric Circuits and Instrumentation	2	1	4	1	-	12
04 CS 303	C++ Programming	2	1	4	1	-	12
04 EC 307	Electronics Device and Circuits Laboratory	2	1	-	-	3	9
04 EC 308	Electric Circuits and Instrumentation Laboratory	2	1	-	-	3	9
04 CS 309	C++ Programming Laboratory	2	1	-	-	3	9
04 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**

Semester IV							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
04 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
04 EC 401	Analog and Digital Electronics	2	1	4	1	-	12
04 EC 402	Industrial Electronics	2	1	4	1	-	12
04 EC 403	Communication Engineering	2	1	4	1	-	12
04 EC 407	Analog and Digital Electronics Laboratory	2	1	-	-	3	9
04 EC 408	Industrial Electronics Laboratory	2	1	-	-	3	9
04 EC 409	Communication Engineering Laboratory	2	1	-	-	3	9

Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**
Semester V							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
04 EC 501	Microprocessor and Microcontroller	2	1	4	1	-	12
04 EC 502	Advance Communication System	2	1	4	1	-	12
04 CS 503	Computer Hardware and Networking	2	1	4	1	-	12
04 EC 507	Microprocessor and Microcontroller Laboratory	2	1	-	-	3	9
04 EC 508	Advance Communication System Laboratory	2	1	-	-	3	9
04 CS 509	Computer Hardware and Networking Laboratory	2	1	-	-	3	9
04 PJ 609	Project Work	4				1	9
04 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(25 hrs/week*15week)=375 hrs+330hrs		**16**	**6**	**12**	**3**	**10**	
Total Credits							**79**
Semester VI							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
04 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
04 CS 601	Embedded System	2	2	3	1	-	12
	Elective I	2	2	3	1	-	12
	Elective II	2	2	3	1	-	12
04 EC 607	Embedded System Laboratory	2	1	-	-	3	9
	Elective II Laboratory	2	1	-	-	3	9
04 PJ 609	Project Work	4	-	-	-	6	15
Total Contact Hours=(24 hrs/week*15week)=360 hrs+330hrs		**14**	**8**	**9**	**3**	**12**	
Total Credits							**85**

Electives

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
04 EC 611	Digital Signal Processing	2	2	3	1	-	12
04 EC 612	VLSI	2	2	3	1	-	12
04 EC 621	Robotics and Auto Electronics	2	2	3	1	-	12
04 CS 622	Digital Image Processing	2	2	3	1	-	12

04 EC 631	Television Engineering	2	2	3	1	-	12
04 EC 632	Bio-Medical Instrumentation	2	2	3	1	-	12
04 EC 617	Digital Signal Processing Laboratory	2	1	-	-	3	9
04 EC 618	VLSI Laboratory	2	1	-	-	3	9
04 EC 627	Robotics and Auto Electronics Laboratory	2	1	-	-	3	9

21.2.6 Department of Computer Science and Information System Engineering

Bachelor of Engineering in Computer Science Engineering

(a) List of Modules (up to 2020-21 Academic Year)

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
099 LA 11	Communication Skills	2	2	3	-	1	12
099 MA 12	Engineering Mathematics I	3	2	4	1	-	15
099 PH 13	Engineering Physics	2	2	3	1	2	15
099 CE 14	Basic Civil Engineering	2	2	3	1	-	12
099 ME 15	Basic Mechanical Engineering	2	2	3	1	-	12
099 CS 17	Modern Information System Laboratory	2	1	1	-	2	9
099 ME 18	Engineering Drawing	2	2	1	-	3	12
Total Contact Hours=(30hrs/week*15week)=450hrs+420hrs		**15**	**13**	**18**	**4**	**8**	
Total Credits							**87**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
099 ME 21	Engineering Mechanics	2	2	3	1	-	12
099 MA 22	Engineering Mathematics II	3	2	4	1	-	15
099 CS 23	Computer Programming	2	2	3	1	-	12
099 EE 24	Basic Electrical Engineering	2	2	3	1	-	12
099 EC 25	Basic Electronics Engineering	2	2	3	1	-	12
099 GE 26	Environmental Science and Engineering	2	2	3	1	-	12
099 CS 27	Computer Programming Laboratory	2	2	-	-	2	9
099 ME 28	Workshop Practice	1	2	-	-	3	9
Total Contact Hours=(30hrs/week*15week)=450hrs+480hrs		**16**	**16**	**19**	**6**	**5**	
Total Credits							**93**

SEMESTER-III

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
055 MA 31	ENGINEERING MATHEMATICS-III	1	4	1	-	9
055 EC 32	DIGITAL ELECTRONICS	2	4	-	-	9
055 EE 33	ELECTRICAL ENGINEERING AND CONTROL SYSTEMS	1	4	1	-	9
055 CS 34	DATA STRUCTURES AND ALGORITHMS	1	5	-	-	9
055 CS 35	DATABASE MANAGEMENT SYSTEMS	1	4	1	-	9
055 CS 36	SYSTEM SOFTWARE	1	5	-	-	9
PRACTICAL						
055 EC 37	DIGITAL ELECTRONICS LABORATORY	3	-	-	3	9
055 CS 38	SYSTEM SOFTWARE AND DBMS LABORATORY	3	-	-	3	9
055 IP 01	INDUSTRIAL PRACTICAL TRAINING	-	-	-	-	20
TOTAL HOURS		13	26	3	6	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)						92

SEMESTER-IV

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
055 CS 41	ARTIFICIAL INTELLIGENCE	1	4	1	-	9
055 CS 42	COMPUTER ARCHITECTURE-I	1	4	-	-	9
055 EC 43	ELECTRONIC CIRCUITS	1	4	1	-	9
055 CS 44	INTERACTIVE COMPUTER GRAPHICS	2	5	-	-	9
055 CS 45	OBJECT-ORIENTED PROGRAMMING	1	5	-	-	9
055 MA 46	PROBABILITY AND QUEUING THEORY	1	4	1	-	9
PRACTICAL						
055 EC 47	ELECTRONIC CIRCUITS LABORATORY	3	-	-	3	9
055 CS 48	OBJECT ORIENTED PROGRAMMING LABORATORY	3	-	-	3	9
TOTAL HOURS		13	26	3	6	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						72

SEMESTER-V

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
055 EC 51	ANALOG, DIGITAL AND DATA COMMUNICATIONS	1	4	1	-	9
055 CS 52	COMPUTER ARCHITECTURE-II	1	5	-	-	9
055 CS 53	THEORY OF COMPUTATION	1	4	1	-	9
055 EC 54	MICROPROCESSOR	1	4	1	-	9
055 CS 55	OPERATING SYSTEM	1	5	-	-	9
055 CS 56	OBJECT ORIENTED SYSTEM ANALYSIS AND DESIGN	2	4	-	-	9
PRACTICAL						
055 EC 57	MICROPROCESSOR LABORATORY	3	-	-	3	9
055 CS 58	OPERATING SYSTEM LABORATORY	3	-	-	3	9
055 IP 02	INDUSTRIAL PRACTICAL TRAINING	-	-	-	-	20
TOTAL HOURS		13	26	3	6	92
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)						

SEMESTER-VI

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
055 CS 61	COMPUTER NETWORKS	2	5	-	-	9
055 EC 62	DIGITAL SIGNAL PROCESSING	1	4	1	-	9
055 CS 63	SOFTWARE ENGINEERING	2	4	-	-	9
055 CS 64	NETWORK PROTOCOLS, MANAGEMENT & SECURITY	1	4	1	-	9
055 CS 65	WEB TECHNOLOGY	1	4	1	-	9
055 CS 66	PRINCIPLES OF COMPILER DESIGN	1	4	1	-	9
PRACTICAL						
055 CS 67	NETWORK PROGRAMMING LABORATORY	3	-	-	3	9
055 CS 68	INTERNET PROGRAMMING LABORATORY	3	-	-	3	9
055 PJ 69	MINI PROJECT	2	-	-	3	9
TOTAL HOURS		13	26	3	6	72

TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)	

SEMESTER-VII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
055 MG 71	ENGINEERING ECONOMICS AND FINANCIAL ACCOUNTING	1	3	-	-	6
055 CS 72	VISUAL PROGRAMMING	2	5		-	9
055 MG 73	PRINCIPLES OF MANAGEMENT	1	3	-	-	6
055 MG 74	PROFESSIONAL ETHICS	1	3	-	-	6
055	ELECTIVE THEORY-I	1	5	-	-	9
055	ELECTIVE THEORY-II	1	5	-	-	9
PRACTICAL						
055 CS 77	VISUAL PROGRAMMING LABORATORY	2	-	-	3	9
055 PJ 89	PROJECT PHASE – I	1	-	-	5	9
TOTAL HOURS		13	23	1	11	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						72

SEMESTER-VIII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
055 MG 81	TOTAL QUALITY MANAGEMENT	1	3	-	-	6
055	ELECTIVE THEORY-II	1	5	-	-	9
055	ELECTIVE THEORY-III	1	5	-	-	9
PRACTICAL						
55 PJ 89	PROJECT PHASE – II	2	-	-	22	36
TOTAL HOURS		5	13	-	22	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (5 hrs/week x 15 week) = 600 hrs)						60

LIST OF ELECTIVE PAPERS

S/N	Subject Code	Subject Name	Description of Hours				Credits
			IS	L	T	P	
1	055 CS 01	ADVANCED OPERATING SYSTEM	1	5	-	-	9
2	055 CS 02	DESIGN OF ALGORITHMS	1	5	-	-	9
3	055 CS 03	PARALLEL COMPUTING	1	5	-	-	9
4	055 CS 04	ALGORITHMS FOR VLSI DESIGN AUTOMATION	1	5	-	-	9
5	055 CS 05	NEURAL COMPUTING	1	5	-	-	9
6	055 CS 06	REAL TIME SYSTEMS	1	5	-	-	9
7	055 CS 07	DIGITAL SPEECH AND IMAGE PROCESSING	1	5	-	-	9
8	055 CS 08	PATTERN RECOGNITION	1	5	-	-	9
9	055 CS 09	PARALLEL ALGORITHMS	1	5	-	-	9
10	055 CS 10	ATM NETWORKING	1	5	-	-	9
11	055 CS 11	MULTIMEDIA	1	5	-	-	9
12	055 CS 12	SOFTWARE TESTING	1	5	-	-	9
13	055 CS 13	ADVANCED DATABASES	1	5	-	-	9
14	055 CS 14	HIGH PERFORMANCE MICROPROCESSORS	1	5	-	-	9
15	055 CS 15	ROBOTICS	1	5	-	-	9
16	055 CS 16	ADVANCED SOFTWARE ENGINEERING	1	5	-	-	9
17	055 MA 17	GRAPH THEORY	1	5	-	-	9
18	055 CS 18	CUSTOM COMPUTING	1	5	-	-	9
19	055 CS 19	UNIX INTERNALS	1	5	-	-	9
20	055 CS 20	RESOURCE MANAGEMENT TECHNIQUES	1	5	-	-	9
21	055 CS 21	DISTRIBUTED OBJECTS	1	5	-	-	9
22	055 CS 22	ADVANCED JAVA PROGRAMMING	1	5	-	-	9
23	055 CS 23	JAVA VIRTUAL MACHINE	1	5	-	-	9
24	055 CS 24	DISTRIBUTED COMPUTING	1	5	-	-	9
25	055 CS 25	BIO-INFORMATICS	1	5	-	-	9
26	055 CS 26	C # AND .NET FRAMEWORK	1	5	-	-	9
27	055 CS 27	MOBILE COMPUTING	1	5	-	-	9
28	055 CS 28	GRID COMPUTING	1	5	-	-	9
29	055 CS 29	AD-HOC NETWORKS	1	5	-	-	9

30	055 EC30	EMBEDDED SYSTEMS	1	5	-	-	9

(b) List of Modules of the Re-Accredited Curriculum (Effective from 2021-22 Academic Year)

SEMESTER 1 YEAR 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MA1101	Engineering Mathematics I	Core	60	15	15	30	-	120	12
LA1102	Technical Communication I	Core	45	-	-	15	-	60	6
PH 1103	Engineering Physics	Core	45	-	7.5	7.5	30	90	**9**
CH 1104	Engineering Chemistry	Core	45	-	7.5	7.5	30	90	9
CE 1105	Basic Civil and Mechanical Engineering	Core	60	-	15	15	-	90	9
CS 1106	Programming Languages	Core	45	-	7.5	7.5	30	90	9
ME 1107	Engineering Graphics	Core	15	-	7.5	7.5	30	60	6
WS 1108	Workshop Practice-I	Core	-	-	-	30	90	120	12
Sub-Total									**72**

SEMESTER 2 YEAR 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MA 1209	Engineering Mathematics II	Core	60	15	15	30	-	120	12
LA 1210	Technical Communication II	Core	45	-	-	15	-	60	6
ME 1211	Engineering Mechanics	Core	45	-	7.5	7.5	30	90	9
ES 1212	Environmental Science & Engineering	Core	60	-	15	15	-	90	9
EE 1213	Basic Electrical and Electronics Engineering	Core	60	-	15	15	-	90	9
CS 1214	Python Programming	Core	45	-	7.5	7.5	30	90	9
ME 1215	Engineering Graphics &Computer Aided Drafting	Core	15	-	7.5	7.5	30	60	6
WS 1216	Workshop Practice - II	Core	-	-	-	30	90	120	12
Sub-Total									**72**

SEMESTER 1 YEAR 2

Course code	Course Name	Status	L	T/S	A	IS	P	Tot. hrs	Credits
MA2101	Engineering Mathematics III	60	15	15	30	-	120	12	12
CS 2102	Computer Organization & Architecture	60	-	15	15	-	90	9	9
CS 2103	System Software	60	-	15	15	-	90	9	9
CS 2104	Data Structure	60	-	7.5	7.5	45	120	12	12
CS 2105	Object Oriented Programming with JAVA	60	-	7.5	7.5	45	120	12	12
EC 2106	Digital Circuit & Logic Design	60	-	7.5	7.5	45	120	12	12
CS 2107	Programming using MATLAB	-	-	15	15	30	60	6	6
CS 2108	Fundamanetal of hardware and software system	45	-	7.5	7.5	-	60	6	6
Sub-Total									**78**

SEMESTER 2 YEAR 2

Course code	Course Name	Status	L	T/S	A	IS	P	Tot. hrs	Credits
MA 2208	Probability & Queuing Theory	Core	60	15	15	30	-	120	12
CS 2209	Design & Analysis of Algorithm	Core	60	-	15	15	-	90	9
CS 2210	Operating System	Core	60	-	15	15	-	90	9
EC 2211	Microprocessor & Microcontroller Applications	Core	60	-	7.5	7.5	45	120	12
CS 2212	Database Management System	Core	60	-	7.5	7.5	45	120	12
	Core Elective 1	Core Elective	60	-	15	15	-	90	9
IPCS 2214	Industrial Practical Training I	Core		-	-	-	-	100	10
	Course Elective-1	Elective-1	15	-	-	-	45	60	6
Sub-Total									**79**

SEMESTER 1 YEAR 3

Course code	Course Name	Status	L	T/S	A	IS	P	Tot. hrs	Credits

CS 3101	Principles of Compiler Design	Core	60	-	15	15	-	90	9
CS 3102	Theory of Computation	Core	60	-	15	15	-	90	9
CS 3103	Computer Networks	Core	60	-	7.5	7.5	45	120	12
CS 3104	Computer Graphics & Multimedia	Core	60	-	7.5	7.5	45	120	12
CS 3105	Internet & Web Technology	Core	60	-	7.5	7.5	45	120	12
	Core Elective 2	Core Elective	60	-	15	15	-	90	9
CS 3107	PC Hardware Assembly & Troubleshooting Lab	Core		-	-	15	45	60	6
	Course Elective-2	Elective 2	60	-	15	15		90	9
Sub-Total									**78**

SEMESTER 2 YEAR 3

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
CS 3208	Software Engineering	Core	45		7.5	7.5	-	60	6
CS 3209	Artificial Intelligence & Expert System	Core	45		7.5	7.5	-	60	6
CS 3210	Cryptography & Network Security	Core	60	-	7.5	7.5	45	120	12
CS 3211	Internet of Things	Core	60	-	15	15		90	9
	Core Elective 3	Core Elective	60	-	15	15	-	90	9
	Elective -1	Elective-1	45	-	7.5	7.5		60	6
CS 3212	Mobile Application & Development	Core		-		30	30	60	6
IPCS 3214	Industrial Practical Training II	-	-	-	-	-	-	-	10
	Course Elective-2	Elective	15	-	-	-	45	60	6
Sub-Total									**70**

SEMESTER 1 YEAR 4

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MG 4101	Principles of Management & Professional Ethics	Core	45	-	15	30	-	90	9
CS 4102	Data Warehousing & Data Mining	Core	60	-	7.5	7.5	45	120	12

CS 4103	C#and .NET Programming	Core	60	-	7.5	7.5	45	120	12
	Core Elective 4	Core Elective	60	-	15	30		90	9
	Elective 2	Elective-2	45	-	7.5	7.5	-	60	6
PJCS 4106	Project Work Phase I & Viva Voce	Core	-	-		105	45	150	15
	Course Elective-3	Elective-3	15	-	-	-	45	60	6
Sub-Total									**69**

SEMESTER 2 YEAR 4

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MG 4207	Entrepreneurship Development	Core	45		15	30	-	90	9
	Elective 3	Elective	45	-	7.5	7.5		60	6
	Elective 4	Elective	45	-	7.5	7.5		60	6
TSCS 4210	Technical Seminar	Core		-	-	75	15	90	9
PJCS 4211	Project Work Phase II & Viva Voce	Core		-	-		300	300	30
	Course Elective-4	Elective	15	-	-	-	45	60	6
Sub-Total									**66**
Grand Total									**581**

LIST OF CORE ELECTIVE MODULES

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
Core Elective 1									
ELCS0001	Free & Open Source Software	Elective	60	-	15	15		90	9
ELCS0002	Advanced JAVA Programming	Elective	60	-	15	15		90	9
ELCS0003	Grid & Cloud Computing	Elective	60	-	15	15		90	9
ELCS0004	Network Design and Management	Elective	60	-	15	15		90	9
Core Elective 2									
ELCS0005	Digital Signal Processing	Elective	60	-	15	15		90	9

ELCS0006	Multimedia Design Principles &Application	Elective	60	-	15	15		90	9
ELCS0007	Network Management	Elective	60	-	15	15		90	9
ELCS0008	Cyber Forensics and Internet Security	Elective	60	-	15	15		90	9
Core Elective 3									
ELCS0009	Advanced Computer Graphics	Elective	60	-	15	15		90	9
ELCS0010	Visualization & Graphic Designing & Layout Designing	Elective	60	-	15	15		90	9
ELCS0011	Multimedia & Animation	Elective	60	-	15	15		90	9
ELCS0012	Interactive Animation Techniques	Elective	60	-	15	15		90	9
Core Elective 4									
ELCS0013	Software Testing	Elective	60	-	15	15		90	9
ELCS0014	Software Design	Elective	60	-	15	15		90	9
ELCS0015	Data Analytics	Elective	60	-	15	15		90	9
ELCS0016	Software Project Management	Elective	60	-	15	15		90	9

LIST OF ELECTIVE MODULES

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
ELCS0031	TCP/IP Design & Implementation	Elective	45	-	7.5	7.5		60	6
ELCS0032	Cellular Mobile Communication	Elective	45	-	7.5	7.5		60	6
ELCS0033	Advanced Digital Signal Processing	Elective	45	-	7.5	7.5		60	6
ELCS0034	Information Security	Elective	45	-	7.5	7.5		60	6
ELCS0035	Digital Image Processing	Elective	45	-	7.5	7.5		60	6
ELCS0036	Management Information Systems	Elective	45	-	7.5	7.5		60	6
ELCS0037	High Performance Networks	Elective	45	-	7.5	7.5		60	6
ELCS0038	Programmable Logic Controller	Elective	45	-	7.5	7.5		60	6
ELCS0039	Fuzzy Logic & Its Application	Elective	45	-	7.5	7.5		60	6
ELCS0040	Robotics & Automation	Elective	45	-	7.5	7.5		60	6

ELCS0041	Principles of Robotics	Elective	45	-	7.5	7.5		60	6
ELCS0042	Engineering Economics & Cost Analysis	Elective	45	-	7.5	7.5		60	6
ELCS0043	Total Quality Management	Elective	45	-	7.5	7.5		60	6
ELCS0044	Intellectual Property Rights	Elective	45	-	7.5	7.5		60	6
ELCS0045	Disaster Management	Elective	45	-	7.5	7.5		60	6
ELCS0046	Industrial Psychology	Elective	45	-	7.5	7.5		60	6

Bachelor of Engineering in Information Systems and Network Engineering

(a) List of Modules (up to 2020-21 Academic Year)

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
099 LA 11	Communication Skills	2	2	3	-	1	12
099 MA 12	Engineering Mathematics I	3	2	4	1	-	15
099 PH 13	Engineering Physics	2	2	3	1	2	15
099 CE 14	Basic Civil Engineering	2	2	3	1	-	12
099 ME 15	Basic Mechanical Engineering	2	2	3	1	-	12
099 CS 17	Modern Information System Laboratory	2	1	1	-	2	9
099 ME 18	Engineering Drawing	2	2	1	-	3	12
Total Contact Hours=(30hrs/week*15week)=450hrs+420hrs		**15**	**13**	**18**	**4**	**8**	
Total Credits							**87**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
099 ME 21	Engineering Mechanics	2	2	3	1	-	12
099 MA 22	Engineering Mathematics II	3	2	4	1	-	15
099 CS 23	Computer Programming	2	2	3	1	-	12
099 EE 24	Basic Electrical Engineering	2	2	3	1	-	12
099 EC 25	Basic Electronics Engineering	2	2	3	1	-	12
099 GE 26	Environmental Science and Engineering	2	2	3	1	-	12
099 CS 27	Computer Programming Laboratory	2	2	-	-	2	9
099 ME 28	Workshop Practice	1	2	-	-	3	9
Total Contact Hours=(30hrs/week*15week)=450hrs+480hrs		**16**	**16**	**19**	**6**	**5**	
Total Credits							**93**

SEMESTER-III

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
056 MA 31	ENGINEERING MATHEMATICS-III	1	4	1	-	9
056 EC 32	DIGITAL ELECTRONICS	2	4	-	-	9
056 CS 33	OBJECT ORIENTED PROGRAMMING IN C++	1	5	-	-	9
056 EC 34	PRINCIPLES OF COMMUNICATIONS	1	5	-	-	9
056 CS 35	COMPUTER ARCHITECTURE	1	4	1	-	9
056 CS 36	DATA STRUCTURES AND ALGORITHMS	1	4	1	-	9
PRACTICAL						
056 CS 37	C++ PROGRAMMING LABORATORY	3	-	-	3	9
056 EC 38	DIGITAL ELECTRONICS LABORATORY	3	-	-	3	9
056 IP 01	INDUSTRIAL PRACTICAL TRAINING	-	-	-	-	20
TOTAL HOURS		**13**	**25**	**3**	**6**	
TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs ,** **Total Hours = 525 hrs +200 hrs + (13 hrs/week x 15 week) = 920 hrs)**						**92**

SEMESTER-IV

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
056 EC 41	MICROPROCESSOR AND MICROCONTROLLER APPLICATIONS	1	4	1	-	9
056 EC 42	TELECOMMUNICATION SWITCHING AND NETWORKS	1	4	1	-	9
056 CS 43	JAVA PRORAMMING	1	4	1	-	9
056 CS 44	OPERATING SYSTEM	1	5	-	-	9
056 CS 45	DATABASE MANAGEMENT SYSTEM	1	4	1	2	9
056 CS 46	SOFTWARE ENGINEERING	2	4	-	-	9
PRACTICAL						
056 CS 47	RDBMS LABORATORY	3	-	-	3	9
056 EC 48	COMMUNICATION SYSTEM LABORATORY	3	-	-	3	9
TOTAL HOURS		**13**	**25**	**4**	**6**	
TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs ,** **Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)**						**72**

SEMESTER-V

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
056 EC 51	EMBEDDED ARCHITECTURE	1	4	1	-	9
056 CS 52	COMPUTER NETWORKS	1	5	-	-	9
056 CS 53	VISUAL PROGRAMMING	1	4	1	-	9
056 EC 54	INFORMATION CODING TECHNIQUES	1	5	-	-	9
056 CS 55	SOFTWARE QUALITY MANAGEMENT	2	4	-	-	9
056 CS 56	OBJECT ORIENTED ANALYSIS AND DESIGN	1	4	1	-	9
PRACTICAL						
056 CS 57	CASE TOOLS LABORATORY	3	-	-	3	9
056 CS 58	VISUAL PROGRAMMING LABORATORY	3	-	-	3	9
056 IP 02	INDUSTRIAL PRACTICAL TRAINING	-	-	-	-	20
TOTAL HOURS		**13**	**26**	**3**	**6**	
TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs ,** **Total Hours = 525 hrs + 200 hrs + (13 hrs/week x 15 week) = 920 hrs)**						**92**

SEMESTER-VI

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
056 CS 61	TCP/IP AND SOCKET PROGRAMMING	1	4	1	-	9
056 EC 62	DIGITAL SIGNAL PROCESSING	1	3	2	-	9
056 CS 63	COMPONENT BASED TECHNOLOGY	1	4	1	-	9
056 CS 64	WEB TECHNOLOGY	1	4	1	-	9
056 EC 65	MOBILE COMMUNICATIONS	1	4	1	-	9
056 CS 66	HIGH PERFROMANCE NETWORKS	2	4	-	-	9
PRACTICAL						
056 CS 67	SOFTWARE COMPONENT LABORATORY	3	-	-	3	9
056 CS 69	MINI PROJECT	3	-	-	3	9
TOTAL HOURS		**13**	**23**	**6**	**6**	**72**
TOTAL CREDITS **(Total Contact Hours = 35 hrs/week * 15 week = 525 hrs ,** **Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)**						

SEMESTER-VII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
056 CS 71	CRYPTOGRAPHY, NETWORK MANAGEMENT AND SECURITY	1	4	1	-	9
056 CS 72	MULTIMEDIA SYSTEM	1	4	1	-	9
056 MG 73	PRINCIPLES OF MANAGEMENT	1	3	-	-	6
056 MG 74	PROFESSIONAL ETHICS	1	3	-	-	6
	ELECTIVE THEORY-I	2	4	-	-	9
	ELECTIVE THEORY-II	2	4	-	-	9
PRACTICAL						
056 CS 77	NETWORKING LABORATORY	3	-	-	3	9
056 CS 78	MULTIMEDIA LABORATORY	3	-	-	3	9
056 PJ 89	PROJECT PHASE –I	1	-	-	5	9
TOTAL HOURS		**15**	**22**	**2**	**11**	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (15 hrs/week * 15 week) = 720 hrs)						**75**

SEMESTER-VIII

Subject Code	Subject Name	Description of Hours				Credits
		IS	L	T	P	
THEORY						
056 MG 81	TOTAL QUALITY MANAGEMENT	1	3	-	-	6
	ELECTIVE THEORY-III	1	5	-	-	9
	ELECTIVE THEORY-IV	1	5	-	-	9
PRACTICAL						
056 PJ 89	PROJECT PHASE – II	2	-	-	22	36
Total Hours		5	13	-	22	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (5 hrs/week * 15 week) = 600 hrs)						**60**

LIST OF ELECTIVE PAPERS

S/N	Subject Code	Subject Name	Description of Hours				Credits
			IS	L	T	P	
1	056 CS 01	ADVANCED OPERATING SYSTEM	1	4	1	-	9
2	056 CS 02	DESIGN OF ALGORITHMS	1	4	1	-	9
3	056 CS 03	PARALLEL COMPUTING	1	4	1	-	9

4	056 CS 04	ALGORITHMS FOR VLSI DESIGN AUTOMATION	1	4	1	-	9
5	056 CS 05	NEURAL COMPUTING	1	4	1	-	9
6	056 CS 06	REAL TIME SYSTEMS	1	4	1	-	9
7	056 CS 07	DIGITAL SPEACH AND IMAGE PROCESSING	1	4	1	-	9
8	056 CS 08	PATTERN RECOGNITION	1	4	1	-	9
9	056 CS 09	PARALLEL ALGORITHMS	1	4	1	-	9
10	056 CS 10	ATM NETWORKING	1	4	1	-	9
11	056 CS 11	MULTIMEDIA	1	4	1	-	9
12	056 CS 12	SOFTWARE TESTING	1	4	1	-	9
13	056 CS 13	ADVANCED DATABASES	1	4	1	-	9
14	056 EC14	HIGH PERFORMANCE MICROPROCESSORS	1	4	1	-	9
15	056 CS 15	ROBOTICS	1	4	1	-	9
16	056 CS 16	ADVANCED SOFTWARE ENGINEERING	1	4	1	-	9
17	056 MA 17	GRAPH THEORY	1	4	1	-	9
18	056 CS 18	CUSTOM COMPUTING	1	4	1	-	9
19	056 CS 19	UNIX INTERNALS	1	4	1	-	9
20	056 20	RESOURCE MANAGEMENT TECHNIQUES	1	4	1	-	9
21	056 CS 21	DISTRIBUTED OBJECTS	1	4	1	-	9
22	056 CS 22	ADVANCED JAVA PROGRAMMING	1	4	1	-	9
23	056 CS 23	JAVA VIRTUAL MACHINE	1	4	1	-	9
24	056 CS 24	DISTRIBUTED COMPUTING	1	4	1	-	9
25	056 CS 25	BIO INFORMATICS	1	4	1	-	9

(b) List of Modules of the Re-Accredited Curriculum (Effective from 2021-22 Academic Year)

SEMESTER 1 YEAR 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MA1101	Engineering Mathematics I	Core	60	15	15	30	-	120	12
LA1102	Technical Communication I	Core	45	-	-	15	-	60	6
PH 1103	Engineering Physics	Core	45	-	7.5	7.5	30	90	9
CH 1104	Engineering Chemistry	Core	45	-	7.5	7.5	30	90	9

CE 1105	Basic Civil and Mechanical Engineering	Core	60	-	15	15	-	90	9
CS 1106	Programming Languages	Core	45	-	7.5	7.5	30	90	9
ME 1107	Engineering Graphics	Core	15	-	7.5	7.5	30	60	6
WS 1108	Workshop Practice - I	Core	-	-	-	30	90	120	12
								Sub-Total	**72**

SEMESTER 2 YEAR 1

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MA 1209	Engineering Mathematics II	Core	60	15	15	30	-	120	12
LA 1210	Technical Communication II	Core	45	-	-	15	-	60	6
ME 1211	Engineering Mechanics	Core	45	-	7.5	7.5	30	90	9
ES 1212	Environmental Science & Engineering	Core	60	-	15	15	-	90	9
EE 1213	Basic Electrical and Electronics Engineering	Core	60	-	15	15	-	90	9
CS 1214	Python Programming	Core	45	-	7.5	7.5	30	90	9
ME 1215	Engineering Graphics & Computer Aided Drafting	Core	15	-	7.5	7.5	30	60	6
WS 1216	Workshop Practice-II	Core	-	-	-	30	90	120	12
								Sub-Total	**72**

SEMESTER 1 YEAR 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MA2101	Engineering Mathematics III	Core	60	15	15	30	-	120	12
IS 2102	Computer Organization & Architecture	Core	60	-	15	15	-	90	9
IS 2103	Visual Programming	Core	60	-	15	15	-	90	9
IS 2104	Data Structure	Core	60	-	7.5	7.5	45	120	12
IS 2105	Object Oriented Programming with JAVA	Core	60	-	7.5	7.5	45	120	12
EC 2106	Digital Circuit & Logic Design	Core	60	-	7.5	7.5	45	120	12
IS 2107	Programming using MATLAB	Core	-	-	15	15	30	60	6

IS 2108	Fundamentals of Hardware And Software system	Core	45		7.5	7.5	6	60	6
								Sub-Total	**78**

SEMESTER 2 YEAR 2

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
MA 2208	Probability & Queuing Theory	Core	60	15	15	30	-	120	12
IS 2209	Object Oriented System Analysis and Design	Core	60	-	15	15	-	90	9
IS 2210	Operating System	Core	60	-	15	15	-	90	9
EC 2211	Microprocessor & Microcontroller Applications	Core	60	-	7.5	7.5	45	120	12
IS 2212	Database Management System	Core	60	-	7.5	7.5	45	120	12
	Core Elective 1	Core Elective	60	-	15	15	-	90	9
IPIS 2214	Industrial Practical Training I	Core		-	-	-	-	100	10
	Course Elective-2	Course Elective	15	-	-	-	45	60	6
								Sub-Total	**79**

SEMESTER 1 YEAR 3

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
IS 3101	TCP/IP Design & Implementation	60	-	15	15	-	90	9	
EC 3102	Embedded Architecture	60	-	15	15	-	90	9	
IS 3103	Computer Networks	60	-	7.5	7.5	45	120	12	
IS 3104	Computer Graphics & Multimedia	60	-	7.5	7.5	45	120	12	
IS 3105	Internet & Web Technology	60	-	7.5	7.5	45	120	12	
	Core Elective 2	60	-	15	15	-	90	9	
IS 3107	PC Hardware Assembly & Troubleshooting Lab		-	-	15	45	60	6	
	Course Elective - 3	15	-	-	-	45	60	6	
								Sub-Total	**69**

SEMESTER 2 YEAR 3

Course code	*Course Name*	*Status*	*L*	*T/S*	*A*	*IS*	*P*	*Tot. hrs*	*Credits*
IS 3208	Software Engineering	Core	45		7.5	7.5	-	60	6
IS 3209	Artificial Intelligence & Expert System	Core	45		7.5	7.5	-	60	6
IS 3210	Cryptography & Network Security	Core	60	-	7.5	7.5	45	120	12
IS 3211	Internet of Things	Core	60	-	15	15		90	9
	Core Elective 3	Core	60	-	15	15	-	90	9
	Elective -1	Elective	45	-	7.5	7.5	-	60	6
IS 3212	Mobile Application & Development	Core		-		30	30	60	6
IPIS 3214	Industrial Practical Training-II	-	-	-	-	-	-	-	10
	Course Elective - 4		15	-	-	-	45	60	6
								Sub-Total	**70**

Table No. 6.7: SEMESTER 1 YEAR 4

Course code	*Course Name*	*Status*	*L*	*T/S*	*A*	*IS*	*P*	*Tot. hrs*	*Credits*
MG 4101	Principles of Management & Professional Ethics	Core	45	-	15	30	-	90	9
IS 4102	Data Warehousing & Data Mining	Core	60	-	7.5	7.5	45	120	12
IS 4103	C#and .NET Programming	Core	60	-	7.5	7.5	45	120	12
	Core Elective 4	Core	60	-	15	15	-	90	9
	Elective 2	Elective	45	-	7.5	7.5	-	60	6
PJIS 4106	Project Work Phase I & Viva Voce	Core	-	-	-	105	45	150	15
	Course Elective - 5	Elective	15	-	-	-	45	60	6
								Sub-Total	

SEMESTER 2 YEAR 4

Course code	*Course Name*	*Status*	*L*	*T/S*	*A*	*IS*	*P*	*Tot. hrs*	*Credits*
MG 4207	Entrepreneurship Development	Core	45		15	30	-	90	
	Elective 3	Core	45	-	7.5	7.5		60	6

	Elective 4	Core	45	-	7.5	7.5		60	6
TSIS 4210	Technical Seminar	Core		-	-	75	15	90	9
PJIS 4211	Project Work Phase II & Viva Voce	Core		-	-		300	300	30
	Course Elective	Elective	15	-	-	-	45	60	6
								Sub-Total	**66**
								Grand Total	**581**

LIST OF CORE ELECTIVE MODULES

Course code	***Course Name***	***Status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
ELIS 0001	Advanced JAVA Programming	Core	60	-	15	15		90	9
ELIS 0002	Grid & Cloud Computing	Core	60	-	15	15		90	9
ELIS 0003	Wireless and Mobile computing	Core	60	-	15	15		90	9
ELIS 0004	Cyber Forensics and Internet Security	Core	60	-	15	15		90	9
ELIS 0005	Information Security	Core	60	-	15	15		90	9
ELIS 0006	Social Network Analysis	Core	60	-	15	15		90	9
ELIS 0007	Human Computer Interaction	Core	60	-	15	15		90	9
ELIS 0008	Network Design and Management	Core	60	-	15	15		90	9
ELIS 0009	Analysis, Architecture and Design ofNetworks	Core	60	-	15	15		90	9
ELIS 0010	Internet Routing Architecture	Core	60	-	15	15		90	9
ELIS 0011	Wireless Communication Technologies	Core	60	-	15	15		90	9
ELIS 0012	Network Programming & Management	Core	60	-	15	15		90	9
ELIS 0013	Advanced Computer Networks	Core	60	-	15	15		90	9
ELIS 0014	Wireless Sensors Network	Core	60	-	15	15		90	9
ELIS 0015	Software Project Management	Core	60	-	15	15		90	9
ELIS 0016	Software Testing	Core	60	-	15	15		90	9

LIST OF ELECTIVE MODULES

Course code	*Course Name*	*Status*	*L*	*T/S*	*A*	*IS*	*P*	*Tot. hrs*	*Credits*
ELIS 0031	Multimedia Design Principles & Application	Elective	45	-	7.5	7.5		60	6
ELIS 0032	Cellular Mobile Communication	Elective	45	-	7.5	7.5		60	6
ELIS 0033	Advanced Digital Signal Processing	Elective	45	-	7.5	7.5		60	6
ELIS 0034	Cyber Security	Elective	45	-	7.5	7.5		60	6
ELIS 0035	Digital Image Processing	Elective	45	-	7.5	7.5		60	6
ELIS 0036	Management Information Systems	Elective	45	-	7.5	7.5		60	6
ELIS 0037	High Performance Networks	Elective	45	-	7.5	7.5		60	6
ELIS 0038	Programmable Logic Controller	Elective	45	-	7.5	7.5		60	6
ELIS 0039	Fuzzy Logic & Its Application	Elective	45	-	7.5	7.5		60	6
ELIS 0040	Robotics & Automation	Elective	45	-	7.5	7.5		60	6
ELIS 0041	Principles of Robotics	Elective	45	-	7.5	7.5		60	6
ELIS 0042	Engineering Economics & Cost Analysis	Elective	45	-	7.5	7.5		60	6
ELIS 0043	Total Quality Management	Elective	45	-	7.5	7.5		60	6
ELIS 0044	Intellectual Property Rights	Elective	45	-	7.5	7.5		60	6
ELIS 0045	Disaster Management	Elective	45	-	7.5	7.5		60	6
ELIS 0046	Industrial Psychology	Elective	45	-	7.5	7.5		60	6

Core Electives:

Module code	**Module Name**	***status***	***L***	***T/S***	***A***	***IS***	***P***	***Tot. hrs***	***Credits***
CEIS 0001	Course of Entry Networking Technician (CENT)	Core Elective	15	-	-	-	45	60	6
CEIS 0002	Course for Certified Technician (CCT)	Core Elective	15	-	-	-	45	60	6
CEIS 0003	Course of Network Associate (CNA)	Core Elective	15	-	-	-	45	60	6
CEIS 0004	Course for Design Professional (CDP)	Core Elective	15	-	-	-	45	60	6
CEIS 0005	Course for Network Professional (CNP)	Core Elective	15	-	-	-	45	60	6
CEIS 0006	Course for System Administrator	Core Elective	15	-	-	-	45	60	6

CEIS 0007	Course for Network Engineer	Core Elective	15	-	-	-	45	60	6
CEIS 0008	Course for Microsoft Server Administration	Core Elective	15	-	-	-	45	60	6
CEIS 0009	Course for My SQL Database Administration (MySQL DBA)	Core Elective	15	-	-	-	45	60	6

Bachelor of Science in Computer Science

SEMESTER I YEAR 1

Module Code	Module Name	Status	Hour Distribution					Tot. Hrs	Credits
			L	T/S	A	IS	P		
Semester I									
LA 1101	Business Communication	Core	45	15	7.5	7.5	15	90	9
MA 1102	Computational methods	Core	60	30	15	15	-	120	12
CS 1103	Computer organization and architecture	Core	60	-	15	15	-	90	9
CS 1104	Programming in C	Core	60	-	15	15	-	90	9
CS 1105	Computer installation & servicing	Core	60	-	15	15	-	90	9
CS 1107	Modern Information System Laboratory	Core	-	-	15	-	45	60	6
CS 1108	C Programming Laboratory	Core	-	-	15	-	45	60	6
CS 1109	PC hardware Laboratory	Core	-	-	15	-	45	60	6
Total Credits								660	66
SEMESTER II YEAR 1									
Module Code	Module Name	Status	Hour Distribution					Tot Hrs	Credits
			L	T/S	A	IS	P		
CS 1207	Algorithms design and Analysis	Core	60	-	15	15	-	90	9
CS 1208	Object Oriented Programming	Core	60	-	15	15	-	90	9
CS 1209	Operating System	Core	60	-	15	15	-	90	9
CS 1210	Multimedia System Design	Core	60	-	15	15	-	90	9
CS 1211	Relational Database Management System	Core	60	-	15	15	-	90	9
CS 1214	Object OrientedProgramminglaboratory	Core	-	-	15	-	45	60	6
CS 1215	Operating system Laboratory	Core	-	-	15	-	45	60	6
CS 1216	Relational Database Management System Laboratory	Core	-	-	15	-	45	60	6
Total Credits								630	63
SEMESTER I YEAR 2									
Module Code	Module Name	Status	Hour Distribution					Tot. Hrs	Credits
			L	T/S	A	IS	P		

CS 2101	Computer Network & Security	Core	60	-	15	15	-	90	9
CS 2102	System Development Analysis & Design	Core	60	-	15	15	-	90	9
EC 2103	Embedded System Design	Core	60	-	15	15	-	90	9
CS 2207	.Net Programming	Core	60	-	15	15	-	90	9
CS 2107	Computer Network & Security Laboratory	Core	-	-	15	-	45	60	6
CS 2214	.Net Programming Laboratory	Core	-	-	15	-	45	60	6
CS IP 2109	IndustrialPractical Training-I (4 weeks)	Core	-	-	-	-	-	100	10
		Elective	60	-	15	15	-	90	9
Total Credits								670	67
Elective Modules - Minimum 9 credits									
ELCS 002	Advanced Database Management System	Elective	60	-	15	15	-	90	9
ELCS 003	Software Project Management	Elective	60	-	15	15	-	90	9

SEMESTER II YEAR 2									
Module Code	Module Name	Status	Hour Distribution					Tot. hrs	Credits
			L	T/S	A	IS	P		
CS IP 2109	Industrial Practical Training- I(4 weeks)	Core				100	-	100	10
CS 2104	Artificial Intelligence	Core	60	-	15	15	-	90	9
CS 2208	Data Mining and Warehousing	Core	60	-	15	15	-	90	9
CS 2209	Python programming	Core	60	-	15	15	-	90	9
EC 2210	Mobile computing	Core	60	-	15	15	-	90	9
CS 2108	UML case tools laboratory	Core	-	-	15	-	45	60	6
CS 2215	Python programming Lab	Core	-	-	15	-	45	60	6
		Elective	60	-	15	15	-	90	9
Total Credits								670	67
Elective Modules - Minimum 9 credits									
ELCS 005	Cryptography	Elective	60	-	15	15	-	90	9
ELCS 008	E-Commerce	Elective	60	-	15	15	-	90	9

SEMESTER I YEAR 3									
Module Code	Module Name	Status	Hour Distribution					Tot. hrs	Credits
			L	T/S	A	IS	P		
CS 3101	Software Engineering	Core	60	-	15	15	-	90	9
CS 3102	Internet Concepts and Web Design	Core	60	-	15	15	-	90	9
CS 3103	Data Analytics	Core	60	-	15	15	-	90	9
CS 3107	Web technology Lab	Core	-	-	15	-	45	60	6
CSIP 3109	Industrial Practical Training-II(4 weeks)	Core	-	-	-	-	100	100	10
CSPJ 3110	Project Phase – I	Core					100	100	10
		Elective	60	-	15	15	-	90	9
Total Credits								660	62
Elective Modules - Minimum 9 credits									
ELCS 001	Grid and Cloud Computing	Elective	60	-	15	15	-	90	9
ELCS 011	Mobile Application and Development	Elective	60	-	15	15	-	90	9
SEMESTER II YEAR 3									
Module Code	Module Name	Status	Hour Distribution					Tot. Hrs	Credits
			L	T/S	A	IS	P		
CSIP 3109	Industrial Practical Training-II – (4 weeks)	Core	-	-	-	-	100	100	10
MG 3208	Principles of Management and Professional Ethics	Core	60	-	15	15	-	90	9
CS 3010	Deep Learning	Core	60	-	15	15	-	90	9
CS 3012	Deep Learning Laboratory	Core	-	-	15	-	45	60	6
CS PJ 3210	Project Phase – II	Core	-	-	-	-	200	200	20
		Elective	60	-	15	15	-	90	9
Total Credits								630	63
Elective Modules - Minimum 9 credits									
ELCS 006	Wireless communications	Elective	60	-	15	15	-	90	9

ELCS 004	Human Computer Interaction	Elective	60	-	15	15	-	90	9
Grand Total Credits									388

Ordinary Diploma in Computer Science Engineering

Module Code	Module Name	Hour Distribution					Credits
		IS	A	L	T	P	
Semester I							
00 LA 101	Communication Skills I	2	2	3	-	1	12
00 MA 102	Basic Engineering Mathematics I	3	2	4	1	-	15
00 PH 103	Physics	2	2	4	-	2	15
00 CS 104	Basics of Computer Science	2	2	3	1	-	12
00 ME 107	Workshop Practice	2	1	-	-	3	9
00 CS 108	Office Laboratory	1	2	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+345hrs		**12**	**11**	**14**	**2**	**9**	
Total Credits							**72**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
00 LA 201	Communication Skills II	2	2	3	-	1	12
00 MA 202	Basic Engineering Mathematics II	3	2	4	1	-	15
00 PH 203	Chemistry	2	2	3	1	-	12
00 CS 204	Computer Programming Language	2	2	3	1	-	12
00ME 207	Technical Drawing	2	3	2	-	3	15
00 CS 208	Computer Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+375hrs		**13**	**12**	**15**	**3**	**7**	
Total Credits							**75**
Semester III							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
05 EC 301	Basics of Electrical and Electronics Engineering	2	1	4	1	-	12
05 CS 302	Data Structures and Algorithm	2	1	4	1	-	12
05 CS 303	PC Hardware and Servicing	2	1	4	1	-	12
05 EC 307	Electrical and Electronics Laboratory	2	1	-	-	3	9
05 CS 308	Advanced C Programming Laboratory	2	1	-	-	3	9

05 CS 309	PC Hardware and Servicing Laboratory	2	1	-	-	3	9
05 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**

Semester IV							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
05 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
05 CS 401	Object Oriented Programming with Java	2	1	4	1	-	12
05 CS 402	Internet Concepts and Web Designing	2	1	4	1	-	12
05 CS 403	Computer Architecture & Assembly Language Programming	2	1	4	1	-	12
05 CS 407	Java Programming Laboratory	2	1	-	-	3	9
05 CS 408	Web Designing Laboratory	2	1	-	-	3	9
05 CS 409	Visual Basic Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**
Semester V							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
05 CS 501	Relational Database Management System	2	1	4	1	-	12
05 CS 502	Computer Networks and Security	2	1	4	1	-	12
05 CS 503	Operating System	2	1	4	1	-	12
05 CS 507	Relational Database Management System Laboratory	2	1	-	-	3	9
05 CS 508	Computer Networks and Security Laboratory	2	1	-	-	3	9
05 CS 509	Operating System Laboratory	2	1	-	-	3	9
05 PJ 609	Project Work	4				1	9
05 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(25 hrs/week*15week)=375 hrs+330hrs		**16**	**6**	**12**	**3**	**10**	
Total Credits							**79**

Semester VI							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
05 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
05 CS 601	Mobile Computing	2	2	3	1	-	12
05 CS 602	TCP/IP Networking	2	2	3	1	-	12
	Elective	2	2	3	1	-	12
05 CS 607	TCP/IP Networking Laboratory	2	1	-	-	3	9
	Elective Laboratory	2	1	-	-	3	9
05 PJ 609	Project Work	4	-	-	-	6	15
Total Contact Hours=(24 hrs/week*15week)=360 hrs+330hrs		**14**	**8**	**9**	**3**	**12**	
Total Credits							**85**

ELECTIVES

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
05 CS 611	Advance Java Programming	2	2	3	1	-	12
05 CS 612	Visual C++ Programming	2	2	3	1	-	12
05 CS 632	Financial Accounting and Management	2	2	3	1	-	12
05 CS 633	Multimedia Systems	2	2	3	1	-	12
05 CS 617	Advance Java Programming Laboratory	2	1	-	-	3	9
05 CS 618	Visual C++ Programming Laboratory	2	1	-	-	3	9
05 CS 638	Accounting Laboratory	2	1	-	-	3	9
05 CS 639	Multimedia Laboratory	2	1	-	-	3	9

Ordinary Diploma in Information Technology

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
Semester I							
00 LA 101	Communication Skills I	2	2	3	-	1	12
00 MA 102	Basic Engineering Mathematics I	3	2	4	1	-	15
00 PH 103	Physics	2	2	4	-	2	15
00 CS 104	Basics of Computer Science	2	2	3	1	-	12
00 ME 107	Workshop Practice	2	1	-	-	3	9
00 CS 108	Office Laboratory	1	2	-	-	3	9

Total Contact Hours=(25 hrs/week*15week)=375 hrs+345hrs		**12**	**11**	**14**	**2**	**9**	
Total Credits							**72**
Semester II							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
00 LA 201	Communication Skills II	2	2	3	-	1	12
00 MA 202	Basic Engineering Mathematics II	3	2	4	1	-	15
00 PH 203	Chemistry	2	2	3	1	-	12
00 CS 204	Computer Programming Language	2	2	3	1	-	12
00ME 207	Technical Drawing	2	3	2	-	3	15
00 CS 208	Computer Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(25 hrs/week*15week)=375 hrs+375hrs		**13**	**12**	**15**	**3**	**7**	
Total Credits							**75**
Semester III							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
06 EC 301	Basics of Electrical and Electronics Engineering	2	1	4	1	-	12
06 CS 302	Data Structures and Algorithm	2	1	4	1	-	12
06 CS 303	Operating System	2	1	4	1	-	12
06 EC 307	Electrical and Electronics Laboratory	2	1	-	-	3	9
06 CS 308	Advanced C Programming Laboratory	2	1	-	-	3	9
06 CS 309	Operating System Laboratory	2	1	-	-	3	9
06 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**

Semester IV							
Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
06 IP 001	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
06 CS 401	Object Oriented Programming with Java	2	1	4	1	-	12
06 CS 402	Internet Concepts and Web Designing	2	1	4	1	-	12
06 CS 403	Computer Architecture & Assembly Language Programming	2	1	4	1	-	12
06 CS 407	Java Programming Laboratory	2	1	-	-	3	9

06 CS 408	Web Designing Laboratory	2	1	-	-	3	9
06 CS 409	Visual Basic Programming Laboratory	2	1	-	-	3	9
Total Contact Hours=(24 hrs/week*15week)=360 hrs+270hrs		**12**	**6**	**12**	**3**	**9**	
Total Credits							**79**

Semester V

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
06 CS 501	Relational Database Management System	2	1	4	1	-	12
06 CS 502	Open Source Software's	2	1	4	1	-	12
06 CS 503	Multimedia Systems	2	1	4	1	-	12
06 CS 507	Relational Database Management System Laboratory	2	1	-	-	3	9
06 CS 508	Open Source Software Laboratory	2	1	-	-	3	9
06 CS 509	Multimedia Systems Laboratory	2	1	-	-	3	9
06 PJ 609	Project Work	4				1	9
06 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
Total Contact Hours=(25 hrs/week*15week)=375 hrs+330hrs		**16**	**6**	**12**	**3**	**10**	
Total Credits							**79**

Semester VI

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
06 IP 002	Industrial Practical Training (4weeks * 40hrs)	-	-	-	-	-	16
06 CS 601	Management Information System	2	2	3	1	-	12
06 CS 602	.Net Programming	2	2	3	1	-	12
	Elective	2	2	3	1	-	12
06 CS 607	.Net Programming Laboratory	2	1	-	-	3	9
	Elective Laboratory	2	1	-	-	3	9
06 PJ 609	Project Work	4	-	-	-	6	15
Total Contact Hours=(24 hrs/week*15week)=360 hrs+330hrs		**14**	**8**	**9**	**3**	**12**	
Total Credits							**85**

ELECTIVES

Module Code	**Module Name**	**Hour Distribution**					**Credits**
		IS	**A**	**L**	**T**	**P**	
06 CS 611	Advance Java Programming	2	2	3	1	-	12
06 CS 612	Visual C++ Programming	2	2	3	1	-	12
06 CS 631	Computer Networks and Security	2	2	3	1	-	12
06 CS 632	Financial Accounting and Management	2	2	3	1	-	12
06 CS 617	Advance Java Programming Laboratory	2	1	-	-	3	9
06 CS 618	Visual C++ Programming Laboratory	2	1	-	-	3	9

06 CS 637	Computer Networks and Security Laboratory	2	1	-	-	3	9
06 CS 638	Accounting Laboratory	2	1	-	-	3	9

21.2. 7 Department of Sciences, Mathematics and Education

Department of Sciences and Mathematics Education (DSME), Dar- es- Salaam is a department at SJUIT of St. Joseph University In Tanzania (SJUIT) situated along the Morogoro road at Mbezi-Luguruni, Dar es Salaam. It is built on a sprawling 30-acres of hilly land. The College provides a conducive atmosphere for the pursuit of education with aims to establish and maintain global standards in the field of education. The students are provided with good conditions to pursue their academic career goals.

Sections and Programmes Offered

Degree programmes in Education through the following sections

- Sciences, Mathematics and Computer Science Section
- Education Section

The sections teach the following subjects for Bachelor of Education

Degree at NTA Level 8Mathematics, Physics, Biology, Chemistry and Computer Science along with education subject. The department has sufficient physical and human resources, which include lecturers, lecture rooms, laboratories and workshops.

Students taking B.Sc. (Ed) programme should select their two major science subjects when starting first year from the following combinations

- Physics and Chemistry
- Physics and Mathematics
- Physics and Computer Science
- Mathematics and Chemistry
- Mathematics and Computer Science

• Biology and Chemistry

Programme structure and Course Outlines

Subject Combinations

Students taking B.Sc. (Ed) programme should take education subject and select two major science subjects when starting first year. The science subjects must form the following combinations:

- Mathematics and Chemistry
- Mathematics and Computer Science
- Physics and Mathematics
- Physics and Chemistry
- Physics and Computer Science
- Biology and Chemistry

Course Mapping on the Semester Time Frame

The proposed course mapping onto the semester time frame is as shown. It is to be noted that the indicated optional courses are necessary for completion of degree programme. Other additional optional courses can be selected provided prerequisites and other conditions of registration are satisfied.

Semester mapping of Common Core Courses for all Students in the B.Sc. (Education) programme.

Year	*Semester*	Course Code and Title	Credits
1	I	701 CC 01 Communication Skills	9
	II	701 CC 02 Basics of Computers	9
3	I	701 CC 03 Environmental Studies	8
	II	701 PJ 100 Project***	9

Total Credits of core

*** Project/Research is Compulsory for all the students at VI semester of year 3. They can do project /Research on any one of their major or Education or a combined one.

Semester Mapping for Education courses for the B.Sc. (with Ed.)

programme.

Year	Semester	Course Code and Title	Credits
1	I	701 ED 51 Educational Psychology	9
		701 ED 52 Curriculum development	8
	II	701 ED 61 Pedagogy of Teaching	9
		701 ED 62 Educational Philosophy	8
		701TP01 Teaching Practice I	9
2	I	701 ED 71Educational Technology	8
		701 ED 72 Teaching Professionalism	8
	II	701 ED 81 Educational Guidance & Counselling	8
		701ED 82 Educational Management and School Administration	8
		701TP 02 Teaching Practice II	9
3	I	701ED 91 Research Methodology	8
		701 ED 101 Sociology of Education	8
	II	701 ED 102 Educational Measurements and Evaluation	8
Total	**Credits of core**		

Semester Mapping for common Elective courses for the B.Sc. (with Ed.) programme.

Course Code and Title	*Credits*
701 ED 01 Physical & Health Education	*8*
701 ED 02 Education for Children with Special Need	*8*
701 ED 03 Challenges in Education	*8*
701 ED 04 Value Education & Education for Human Rights	*8*
701 ED 05 Peace Education	*8*

Semester mapping of Computer Science Courses for the B.Sc. (Ed.) programme.

Semester Mapping of core Mathematics courses.

Year	Semester	Code and Title of Courses	Credit
1	I	350 MA 51Introduction to Mathematical Analysis	9
		350 MA 52Introduction to Linear Algebra	9
	II	350 MA 61Calculus for Functions of a Single Variable	9

		350 MA 62Numerical Methods	9
2	I	350MA 71Differential Equations and its Applications	9
		350 MA 72Vector Analysis and Fourier Analysis	9
	II	350 MA 81Analytical Geometry	9
		350 MA 82Mathematical Statistics	9
3	I	350 MA 91Complex Analysis	9
		350MA 92 Calculus for Functions of Several Variables	9
	II	350 MA 101Linear Programming	9
		350MA 102Graph Theory	9
Total Credits of core			

Semester Mapping of elective Mathematics courses.

Code and Title of Courses		Cr
350 MA 01	Discrete Mathematics	9
350 MA 02	Probability Theory	9
350 MA 03	Modern Algebra	9

Semester mapping of Computer Science Courses for the B.Sc. (Ed.) programe

Semester Mapping of core Computer Science courses.

Year	Semester	Course code and Title	Credits
1	I	351 CS 51 Computer Programming	9
		351 CS 52 Computer Installation and Servicing	9
	II	351 CS 61 Computer Organization and Architecture	9
		351 CS 62 Object Oriented Programming in C++	9
2	I	351 CS 71 Object Oriented Programming in Java	9
		351 CS 72 Data Structures and Algorithm	9

	II	351 CS 81 Relational Database Management System	9
		351 CS 82 Operating System	9
3	I	351 CS 91 Visual Programming	9
		351 CS 92 Software Engineering	9
	II	351 CS 101 System Analysis and Design	9
		351 CS 102 Computer Networks and Security	9
Total			

Semester mapping of elective Computer Science courses.

Course Code & Title	Credits
351 CS 01 Web Programming	9
351 CS 02 Systems Administration in Linux	9
351 CS 03 Mobile Application Development	9
351 CS 04 Computer Graphics	9
351 CS 05 Data Communication and Networking	9

***Semester mapping of Physics Courses for the B.Sc. (Ed.) programme*.**

Semester mapping of core Physics courses.

Year	Semester	Course Code & Title	Credits
1	I	352 PH 51Classical Mechanics	*9*
		352 PH 52 Physics Practical I	*9*
	II	352 PH 61 Electricity and Magnetism	*9*
		352 PH 62 Physics Practical II	*9*

2	I	352 PH 71 Oscillations and Optics	*9*
		352 PH 72 Physics Practical III	*9*
	II	352 PH81 Quantum Mechanics and Relativity	*9*
		352 PH82 Physics Practical IV	*9*
3	I	352 PH91 Classical and Statistical Thermodynamics	*9*
		352PH92 Electronics	*9*
	II	352 PH 101 Atomic Physics	*9*
		352 PH 102 Solid State Physics	*9*
Total credits			

Semester mapping of elective Physics courses

Course Code And Title	*Credits*
352 PH 01 Energy Physics	*9*
352 PH 02 Fundamentals of Materials Science	*9*
352 PH 03 Nuclear Physics and Elementary Particles	*9*

Semester mapping of Chemistry Courses for the B.Sc. (Ed.) programme.

Semester mapping of core Chemistry courses.

Year	*Semester*	*Course Code & Title*	*Credits*
1	I	353 CH 51 Basic Analytical Chemistry	9
		353 CH 52 Concepts in Inorganic and General Chemistry	9
	II	353 CH 61 Volumetric Analysis and Inorganic Preparations	*9* *9*
		353 CH 62 Chemistry of Organic Compounds I	*9*
2	I	353 CH 71 Chemistry of Organic Compounds II	*9*
		353 CH 72 Inorganic and Organic Qualitative Analysis	*9*
	II	353CH81 Inorganic Chemistry	*9*
		353 Chemical Thermodynamics	*9*

		CH82	
3	I	353CH91 Physical Chemistry Practicals	*9*
		353 CH92 Electrochemistry	*9*
	II	353CH 101 Instrumental Analytical Chemistry	*9*
		353 CH 102 Chemical Kinetics and Nuclear Chemistry	*9*
Total credits			

Semester mapping of elective Chemistry courses.

Course Code & Title	*Credits*
353 CH 01Environmental Chemistry	8
353 CH 02 Chemistry of Materials	8
353 CH 03 Food Chemistry and Technology	8
353 CH 04 Industrial Chemistry	8

***Semester mapping of Biology Courses for the B.Sc. (Ed.) programme*.**

Semester mapping of core Biology courses.

Year	*Semester*	*Course Code & Title*	*Credits*
1	I	354 BI 51 Introduction to Cell Biology and Genetics	9
		354 BI 52 Invertebrate Zoology	9
	II	354 BI 61 Biochemistry	9
		354 BI 62 Chordate Zoology	9
2	I	354 BI 71 Evolutionary Botany	12
		354 BI 72 Developmental Biology and Immunology	9
	II	354 BI 81 Cell and Molecular Biology	12
		354 BI 82 Ecology I	9
3	I	354 BI 91 Plant Physiology	9
		354 BI 92 Animal Physiology	9
	II	354 BI 101 Vertebrate Anatomy and Physiology II	9
		354 BI 102 Anatomy of Angiosperms	9
Total Credits			

Semester Mapping of elective Biology courses.

Course Code & Title	*Credits*
354 BI 01 Taxonomy of Higher plants	9
354 BI 02 Fundamentals of soil science	9
354 BI 03 Evolution	9
354 BI 04 Ecology II	*9*
354 BI 05 Introductory Entomology and Parasitology	*9*
354 BI 06 Chemistry for Life Sciences students	*9*

FACILITIES

The college offers several facilities to all her departments to enrich the students to enable them achieve the intended learning goals. The departments that offer engineering programmes have various labs such as power electronics lab, measurements and instrumentation lab, electrical power, kinematics and dynamics lab, thermal engineering lab, fluid mechanics lab, mechatronics engineering lab, production engineering lab, materials science and testing lab, computer aided design and manufacturing lab, soil engineering lab, machine tools lab, water engineering and hydraulics, highway engineering, digital signal processing, software development, multimedia lab, and computer hardware and networking lab to provide engineering practical knowledge to the students. There are also various training workshops such as forging and casting workshop, welding workshop, machine tools workshop, basic electronics workshop, fitting workshop and basic electrical engineering workshop to provide hands on training to the students.

The department of Sciences, Mathematics and Education has various laboratories such as Inorganic chemistry lab, organic chemistry lab, Physical chemistry lab, water analysis lab, physics lab, zoology lab, botany lab, Computer Science lab, Mathematics lab to provide adequate practical knowledge to the students. The department of Mathematics and computational sciences has 200 computers to carter for the practical concept of networking, internet programming, multimedia, components-based technology, object-oriented programming, data base management, computer installation and servicing,

operating system, web technology, open-source operating system and basic computer programming laboratories.

21.2 St. Joseph College of Health and Allied Sciences, Boko Dovya, Dar Es Salaam

St. Joseph College of Health and Allied Sciences (SJCHAS) is a campus College of St Joseph University In Tanzania (SJUIT). It is situated along Bagamoyo Road at Boko Dovya, 30 kilometers from the City Center. It is exclusively devoted to programmes in the Health and Allied Sciences. The Mission of SJCHAS is to impart quality and employable education to produce qualified, disciplined and proficient professionals in the Health and Allied Sciences. The College provides a conducive atmosphere for the pursuit of higher education with aims to establish and maintain global standards in the field of Health and Allied Sciences. The students are provided with excellent teaching and learning environment to pursue their academic career goals.

Departments and Programmes offered

The College has three departments as listed hereunder:

1) Department of Medicine
2) Department of Nursing
3) Department of Pharmacy

The College offers the following programmes

1) Doctor of Medicine (MD) UQF Level 8
2) Ordinary Diploma in Nursing NTA Level 4-6
3) Ordinary Diploma in Pharmaceutical Sciences NTA Level 4-6

Department of Medicine Programmes

The Department of Medicine offers the degree of Medicine of Medicine (MD) UQF Level 8. The department has sufficient physical and human resources, including lecture theatres and seminar rooms, state of the art laboratories, and academic

and technical staff. The Department of Medicine has five units or sub-departments, namely Department of Biomedical Sciences, Department of Pathology, Department of Medicine, Department of Surgery, and Department of Public Health and Community Medicine**.**

The Doctor of Medicine is a five-year, 10-semester programme.

Normal learning matrix & Course matrix

SEMESTER 1, Year 1

Course Code	Course Name	Total Credits
AN 101	Anatomy I	21.0
PH 101	Physiology I	18.9
BC 101	Biochemistry I	10.5
BS 101	Behavioral Sciences	9.5
EP 101	Ethics and Professionalism, I	3.1
	Total	**63**

SEMESTER 2, Year 1

Course Code	Course Name	Total Credits
AN 102	Anatomy II	18.9
PH 102	Physiology II	14.7
BC 102	Biochemistry II	10.5
DS 102	Development studies I	6.8
EP 102	Ethics and Professionalism II	3.2
CS 102	Basic Communication Skills	8.9
	Total	**63**

SEMESTER 3, Year 2

Course Code	Course Name	Total Credits
PA 201	Pathology I	15.8
MI 201	Microbiology and Immunology, I	9.5
PE 201	Parasitology and Entomology	9.5
ER 201	Epidemiology and Research Methodology	9.5
CP 201	Clinical Pharmacology I	12.6
DS 201	Development studies II	6.3
	Total	**63**

SEMESTER 4, Year 2

Course Code	Course Name	Total Credits
PA 202	Pathology II	17.9
MI 202	Microbiology and Immunology II	10.5
BD 202	Biostatistics and Demography	9.5
CP 202	Clinical Pharmacology II	14.7
CN 202	Community Health Nutrition	10.5
	Total	**63**

SEMESTER 5 and 6, Year 3Junior Clerkship

Course Code	Course Name	Total Credits
IM 300	Internal Medicine Junior Clerkship	25.2
MH 300	Pediatrics and Child Health Junior Clerkship	25.2
MS 300	Surgery Junior Clerkship	25.2
OG 300	Obstetrics and Gynecology Junior Clerkship	25.2
EP 300	Ethics and Professionalism III	3.2
CD 300	Control of Communicable Diseases	12.6
RO 300	Radiology	9.5

	Total	**126**

SEMESTER 7 and 8, Year 4Intermediate Clerkship

Course Code	Course Name	Total Credits
PS 400	Psychiatry	25.2
CM400	Community Medicine	24.2
RP 400	MD Research Project	16.8
OL 400	Otorhinolaryngology	21
OP 400	Ophthalmology	21
AC 400	Anesthesiology and Critical Care Medicine	17.9
	Total	**126**

SEMESTER 9 and 10, Year 5Senior Clerkship

Course Code	Course Name	Total Credits
IM 500	Internal Medicine Senior Clerkship	25.2
MH 500	Pediatrics and Child Health Senior Clerkship	25.2
MS 500	Surgery Senior Clerkship	25.2
OG 500	Obstetrics and Gynecology Senior Clerkship	25.2
OT 500	Orthopedics and Traumatology	25.2
	Total	**126**

Department of Nursing

Department of Nursing offers Ordinary Diploma in Nursing and Midwifery NTA Level 6. The department has sufficient physical and human resources, including theatres and seminar rooms, state of the art skills laboratories, and academic and technical staff.

Ordinary Diploma in Nursing and Midwifery programme

This is a 3-year, 6 semester programme. Students can exit after 2 years with Technician Certificate in Nursing and Midwifery NTA Level 5 if they complete the first 2 years successfully. Students who complete the 3-year programme successfully are awarded Ordinary Diploma in Nursing and Midwifery NTA Level 6.

Summary of the Modules

NURSING AND MIDWIFERY NTA LEVEL 4

Module Code	Module Titles	Semester I	Semester II
NMT04101	Infection Prevention and control	√	
NMT04102	Professionalism in Nursing	√	
NMT04103	Human anatomy and Physiology	√	
NMT04104	Basic Computer Applications	√	
NMT04105	Communication Skills	√	
NMT04106	Parasitology and Entomology	√	
NMT04207	Application of Nursing Process and Theories in Nursing Care		√
NMT04208	Basic Clinical Nursing		√
NMT04209	Basic Pharmacology		√
NMT04210	Basics of Health Information Management		√
NMT04211	Disaster and Emergency Preparedness		√
NMT04112	Entrepreneurship		√

NURSINGAND MIDWIFERY NTA LEVEL 5

MODULE CODE	MODULE NAME	Semester I	Semester II
NMT 05101	Reproductive Health Care	√	
NMT 05102	Child Health Services	√	
NMT 05103	Care of a Sick Child	√	
NMT 05104	Basic Care of Patient with Medical Conditions	√	
NMT 05105	Basic Care of Patient with Surgical Conditions	√	
NMT 05106	Basics of Mental Health Nursing	√	
NMT 05107	Care of a Woman During Antenatal Period	√	
NMT 05208	Care of a Woman in Normal Labour and Puerperium		√
NMT 05209	Pre-Referral Management of a Woman with Abnormal Pregnancy Labour and Puerperium		√
NMT 05210	Care of a Normal New Born		√
NMT 05211	Management of Communicable Diseases		√
NMT05212	Community Health Nursing		√

NURSING AND MIDWIFERY NTA LEVEL 6

MODULE CODE	MODULE NAME	Semester I	Semester II
NMT 06101	Care of a Woman with Abnormal Pregnancy, Labourand Puerperium	√	

NMT 06102	Care of a Woman with Obstetric Emergency Conditions	√	
NMT 06103	Care of Newborns with Abnormal Conditions	√	
NMT 06104	Supervision in Nursing and Midwifery Practice	√	
NMT 06105	Basics of Epidemiology and Biostatics	√	
NMT 06106	Fundamentals of Research	√	
NMT 06207	Care of Patients with Medical Conditions		√
NMT 06208	Patients with Tumorsand Cancer		√
NMT 06209	Patients with Surgical Conditions		√
NMT 06210	Patients with Reproductive Surgical Conditions		√
NMT 06211	Mental Health Nursing		√

Department of Pharmacy

Department of Nursing offers Ordinary Diploma in Pharmaceutical Sciences NTA Level 6. The department has sufficient physical and human resources, including theatres and seminar rooms, state of the art skills laboratories, and academic and technical staff.

Ordinary Diploma in Pharmaceutical Sciences NTA Level 6 programme

This is a 3-year, 6th semester programme. Students can exit after 2 years with Technician Certificate in Pharmaceutical Sciences NTA Level 5 if they complete the first 2 years successfully. Students who complete the 3-year programme successfully are awarded Ordinary Diploma in Nursing and Midwifery NTA Level 6.

PHARMACEUTICAL SCIENCES LEVEL 4		
Code	**Module Titles**	**Total Credits**
Semester I		
PST04101	Dispensing	8
PST04102	Disease control and Prevention	10
PST04103	Human anatomy and Physiology	12
PST04104	Pharmaceutical Dosage Forms	4
PST04105	Pharmaceutical Calculations	11
PST04106	Communication Skills	4
PST04107	Basic Computer Applications	6
Semester II		
PST04208	Law and Ethics in Pharmacy Practice	4
PST04209	Compounding of Pharmaceutical Liquid Preparations	20
PST04210	Pharmaceutical Inorganic Chemistry	12
PST04211	Basic Pharmacology	12
PST04212	Medical Stores Keeping	12
PST04213	Pharmacy Practice	3
TOTAL CREDITS		**120**

Pharmaceutical Sciences NTA Level 5

Code	Module Titles	Total Credits
Semester I		
PST05101	Medicine and Medical Supplies Management	12
PST05102	Laws and Policies in Pharmacy Practice	7
PST05103	Pharmaceutical Microbiology	12
PST05104	Pharmacology and Therapeutics	12
PST05105	Rational Use of Medicines	4
PST05106	Pharmaceutical Organic Chemistry	12
Semester II		
PST05207	Quality Assurance of Pharmaceutical Products	12
PST05208	Pharmaceutical theory of Compounding	20
PST05209	Health Information Management	12
PST05210	Basic Pharmacognosy	12
PST05211	Pharmacy Practice	5
TOTAL CREDITS		**120**

Pharmaceutical Sciences NTA Level 6		
Code	**Module Titles**	**Total Credits**
Semester I		
PST06101	Leadership and Management	12
PST06102	Counselling and Guidance Skills	8
PST06103	Pharmaceutical Production	20
PST06104	Health and Medicine Policy	7
PST06105	Health financing	12
PST06106	Basic Pharmacotherapy	6
PST06107	Basic Veterinary Pharmacology	6
Semester II		
PST06206	Pharmaceutical Public Health	8
PST06207	Entrepreneurship	12
PST06208	Operational Research	24
PST06209	Monitoring and evaluation of Medicines Use	12
PST06210	Pharmacy Practice	5
TOTAL CREDITS		**120**

FACILITIES

The college offers several facilities to all SJCHAS departments to equip the students with skills to enable them to achieve their goals. The department of Biomedical Sciences has various laboratories, including Anatomy, Biochemistry, Histology and Physiology. The department of Pathology has two laboratories which include Microbiology and Immunology, and Pathology. The department of Medicine has Pharmacology laboratory while the Department of Public Health and Community Medicine has ICT laboratory. The ICT Laboratory has 100 computers for students and 2 for teachers. The department of Nursing has three skills laboratories, one each for Anatomy, Medical/Surgical Nursing, and Midwifery. The Pharmacy department has one laboratory for compounding. The college has adequate fixed laboratory equipment pertinent for the programme.

This Prospectus can be reviewed or amended from time to time as deemed necessary and approved by the SJUIT Council.

"WHERE YOUR DREAMS ARE NURTURED".

For further Enquiries contact

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