ST. JOSEPH UNIVERSITY INTANZANIA

PROSPECTUS FOR ACADEMIC YEAR 2023-2024

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DAR ES SALAAM, TANZANIA

PROSPECTUS FOR ACADEMIC YEAR 2023 - 2024

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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

NACTVET	National Council for Technical and Vocational Education and Training
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 and learning, research, and social services environment. Since 2004, our institution has been contributing to this Country by providing quality graduates and through social service initiatives. As the needs of the 21st Century grow and change, SJUIT is also continuously evolving to be a leader in meeting and exceeding the emerging demands.

We are offering Degree programmes in various fields of Engineering and Technology; Sciences, Mathematics and Education; and Health and Allied Sciences. We also offer Diploma and Certificate programmes in various fields of Engineering and Technology, Nursing and Midwifery, 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. We offer all kinds of facilitated learning opportunities ranging from theoretical lectures to 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 by using high-level infrastructure facilities and well-experienced and qualified academic staff.

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

nurture and realize your dreams. So, let us work together to achieve your personal goals.

I wish you all the best.

Prof. Eliab 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 and Vocational Education and Training (NACTVET).

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.

5. STUDENTS WELFARE

5.1 Students Administration

SJUIT is comprised of diverse community incorporating students of different nationalities and cultural backgrounds. 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 TZS 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 be called as the 'Students' Academic Adviser' for that set of students throughout the year.

The Students' Academic Adviser shall advise their students on 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 enrich 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.tz; admission@sjuit.ac.tz.

Website: www.sjuit.ac.tz

CAMPUS COLLEGES

St. Joseph College of Engineering and Technology

P.O.BoxNo:11007,

Morogoro Road, Mbezi Luguruni, Dar es Salaam, Tanzania.

Phone No+255686312813, +255686312809

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St. Joseph College of Health and Allied Sciences

P.O.Box:11007,

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

Phone No+255689312861, +255686312802

Email: sjchs@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, NACTVET	Member
10	Adv. Erasmus Buberwa	Partner at Upright Attorney – Corporate Counsel	Member
11	Mrs. Valentina Kayombo	International Civil Aviation Organization (ICAO), Nairobi	Member
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

S/N	NAME	DESIGNATION	POSITION IN COUNCIL
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 – B.Sc. in Engineering (Mechanical Engineering) (University of Dar es Salaam), M.Sc. in Mechanical Engineering (Cranfield University, United Kingdom), Ph.D. (Industrial Design Engineering) (Delft University of Technology, the Netherlands), Post-Doc (Applied Volumetric Visualization) (Delft University of Technology, the Netherlands).

Legal Counsel & Secretary to Council (LC-STC)

Advocate Erasmus Buberwa

Director, Directorate of Quality Assurance and Quality Control

Dr. Regina. John, B.A. (Population and Development Planning), M.A. (Rural Development), Ph.D. (Agriculture in Rural Innovation)

Senate Members

S/N	NAME	DESIGNATION	POSITION IN SENATE
1	Prof. Eliab Z. Opiyo	Vice Chancellor	Chairperson
2	Prof. Alfonse M. Dubi	DVC-ARPE	Member
3	Prof. Estomih S. Massawe	DVC-RMA	Member

S/N	NAME	DESIGNATION	POSITION IN SENATE
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. Stanley H. Mneney	Principal, SJCET	Member
9	Prof. Elena V. Generalova	Principal, SJCHAS	Member
10	Prof. Mary Raja Slochanal	Director, Research and Postgraduate Studies	Member
11	Dr. Kassimu A. Nihuka	Coordinator, Prospective Directorate of Digital and Virtual Learning	Member
12	Dr. Mahendran Ganesan	Director, Undergraduate Studies	Member
13	Dr. Sudhanraj Jeganmohan	Coordinator, Prospective Directorate of Diploma, Certificates and Skill Development Programmes & ITAF	Member
14	Mr. Mathew O. Ngulugulu	Dean of Students	Member
15	Dr. Sivakumar Ramakrishnan	COE In-charge	Member
16	Prof. Fred S. Mhalu	Professor, SJCHAS	Member
17	Witness Seraphin Mawanja	Chief Librarian	Member
18	Rev. Fr. Kranthi K. Konde	Chaplin	Member
19	Dr. Regina John	Director, QA&QC	Member
20	Mr. Saburi John	Director, Policies and Planning	Member
21	Students Organization Representative	Student representative, SJUIT	Members

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

Prof. Alfonse M. Dubi, Dip. Ing. (Structural Engineering) (Sofia), Grad. Diploma (Marine Civil Engineering) (Trondheim-Norway), Dr. -Ing. (Marine

Technology - Port, Coastal and Offshore Engineering) (Trondheim - Norway).

Controller of Examinations

Dr. Sivakumar Ramakrishnan, Bachelor of Science (Physics), Master of Science (Physics (Electronics), Post Graduate Diploma (Computer Science and Applications) Master of Philosophy (Computer Science), Doctor of Philosophy (Computer Science).

Director of Undergraduate Studies

Dr. Mahendran Ganesan, - Bachelor of Science (Physics), Master of Science (Physics (Electronics), Post Graduate Diploma (Computer Science and Applications) Master of Philosophy (Computer Science), Doctor of Philosophy (Computer Science Doctor of Philosophy (Computer Science).

Director of Research and Postgraduate Studies

Prof. Mary Raja Slochanal, B.E. Electrical and Electronics Engineering, Masters of Engineering in Power Systems, Ph.D. Power System –Modeling.

Director of Diploma, Certificates, and Skills Development Programmes

Dr. Sudhanraj Jeganmohan, Bachelor of Engineering in Mechanical Engineering, Master of Engineering in Engineering Design-Mechanical, PhD in Mechanical Engineering.

Director of Innovation & Technopreneurship Acceleration Facility (ITAF)

Dr. Sudhanraj Jeganmohan, Bachelor of Engineering in Mechanical Engineering, Master of Engineering in Engineering Design-Mechanical, PhD in Mechanical Engineering.

Director of University Knowledge &Information Resources (Libraries)

Ms. Witness Seraphin Mawanja; BA(Library and Information Studies)

Deputy Vice Chancellor for Resources Management and Administration (RMA)

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

Director of Policies and Planning

Mr. Saburi John, BSc. (Engineering-Surveying and Photogrammetry), MSc. (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)

Mr. Adauth Kombe, BSc (Building Economics), MSc (Engineering Management)

Principal, St. Joseph College of Engineering and Technology

Prof. Stanley H. Mneney, BSc (Electrical Engineering) Master of Applied Science (Telecommunication & Signal Processing), PhD (Telecommunication).

Deputy Principal - ARPE, St. Joseph College of Engineering and Technology

Dr. K Arul Raj, Bachelor in Mechanical Engineering, Masters in Mechanical Engineering, PhD in Mechanical Engineering.

Deputy Principal - RMA, St. Joseph College of Engineering and Technology

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

Head of Department-Civil Engineering and the Built Environment

Arch. Dr. Ludigija Boniface Bulamile, Advanced Diploma (Building Design Architecture), MSc (Architecture), MSc. (Civil Engineering - Construction Engineering), PhD (Architecture - Built Environment Analysis)

Head of Department-Mechanical, Mechatronics and Industrial Engineering

Dr. Annix Joel Singh J., PhD in Mechanical Engineering, Masters in Mechanical Engineering, Bachelor in Mechanical Engineering

Head of Department-Electrical Electronics and Communication Engineering

Dr. Prabharan Paulraj, BE (Electronics and Communication Engineering), ME (Computer and Communication Engineering), Ph.D. (Information and Communication Engineering).

Head of Department-Computer Science and Information Systems Engineering

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

Head of the Department of Sciences, Mathematics and Education

Dr. Kalidoss Rajendran, Bachelor of Science in Botany, Masters in Microbiology, PhD in Interdisciplinary Microbiology.

Section Head-Basic Sciences

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

Section Head - Education

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

Coordinator, Diploma in Engineering Programmes

Dr. Sundar Vettum Perumal; BE in Mechanical Engineering, ME in Mechanical Engineering.

Principal, St. Joseph University College of Health and Allied Sciences, Boko, Dar es Salaam

Prof. Sergey Iukhimetc, PhD in Medicine, Masters in Human Anatomy, Doctor of Medicine.

Deputy Principal - ARPE, St. Joseph University College of Health and Allied Sciences

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

Deputy Principal – RMA, St. Joseph University College of Health and Allied Sciences

Prof. Joas B. Rugemalila, Doctor of Medicine, Postgraduate Diploma in Public Health, PhD in Community Medicine.

Dean, School of Medicine

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

Associate Dean, School of Medicine

Dr. Tesfaye Tolessa Dugul, PhD in Medical Physiology, M Sc in Medical Physiology, B. Sc. Biology.

Head of Department-Nursing and Midwifery

Mr. Mkono Zabron, B.Sc. Nursing.

Head of Department – Pharmaceutical Sciences

Dr. Margreth P. Emmanuel, Diploma in Pharmaceuticals Science, Bachelor of Pharmacy in Pharmaceutical Science, Doctor of pharmacy in Clinical Pharmacy.

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 of 8 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 GPA of 3.0 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 subjects Physics, 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 subjects Advanced Mathematics, Biology, Physics, or Chemistry or Foundation Programme of the OUT with a minimum GPA	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
			of 3.0 in Science Cluster.	
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) 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.
2	Ordinary Diploma in Computer Science and Engineering	
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.

S/N	Programme	Minimum Entrance Requirements
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.
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, namely the National Examinations Council of Tanzania (NECTA) in respect of certificates of secondary education examination, and the National Council for Technical and Vocational Education and Training (NACTVET) in respect of NTA Level 6 qualifications. before submitting their applications for admission.

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-mail admission@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 NACTVET 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 NACTVET 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 include sickness; 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 School of Medicine

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. All students shall register into the University's Students' Information System at the beginning of every semester.

ii. Only students who have registered shall be considered as bonafide students for that semester.

iii. Any examination taken by a student who has not fulfilled the semester registration requirements shall be null and void.

iv. A student who qualifies for registration but fails to register within the stipulated time without notice to the Principal of the College shall be regarded to have absconded.

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

19.3 Eligibility for Examinations

i. Conditions for eligibility of a student to do any examination will be as follows:

a. Must be a duly registered student for the particular semester.
b. Has a minimum attendance of 85 per cent of contact hours, but for the practical/clinical rotation/community field sessions, a candidate must attain 95 percent attendance rate. A candidate, who fails to attain at least 85 percent and 95 percent attendance rates for lectures/seminars and practical/clinical rotations/community field/Teaching Practice, respectively, shall be required to retake the whole course/module when next offered. However, with special permission a candidate with less than 85% but not below 75% of attendance may be deemed to have satisfied the conditions of attendance in a semester on medical or academic grounds subject to the approval of the Principal;
c. Has completed all required course work assessment for the module being examined.
d. Was allowed to postpone examination(s) as per Regulation 7.6;
e. Has not been barred by any lawful order; and
f. Has paid all required tuition fees, deposits and other charges as determined by the University.

ii. Where a candidate who has been barred in accordance with sub-section6.1 (a) or (b) or (c) enters the examination room and sits for the paper, his/her results in the paper shall be declared null and void.

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

iv. A candidate shall be required to attend all sessions of Field / Industrial Practical Training (IPT)/clinical rotation/community health or Teaching Practice (TP) and if a candidate misses any session without the permission of the Head of Department or the latter's appointee (i.e. IPT/TP) coordinator or supervisor, he/she shall be discontinued from studies. In case permission for being absent from IPT or TP or clinical rotation or community health attachment is granted, the candidate shall be required to finance his/her training session and other involved expenses by using own resources.

19.4 Absence from Examination

i. A candidate who absents oneself from an end of semester/module or clinical rotation examination without compelling reasons shall be deemed to have absconded from examinations 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 an incomplete score.

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.

v. A candidate allowed to be absent from the end of semester/clinical rotation 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 i.e.during supplementary examination as first sitting (for clinical rotation shall be during the end of academic year long vacation).

vi. Permission for postponement of end of semester/clinical rotation examination(s) either in part or its entirety due to valid causes or reason shall be granted by the college Principal in writing. The causes/reasons shall have been communicated in writing and approved by the Principal prior to the commencement of the examination.

vii. Postponement of course assessment tests shall be granted by the course instructor and reported to the relevant HoD.

viii. A Candidate who was allowed to postpone the end of the semester examination(s) shall sit for the postponed examinations or part thereof as first sitting during the supplementary examination session of the same academic year.

ix. A candidate who was allowed to postpone the supplementary examination(s) shall sit for postponed examinations during the supplementary examination session of the following academic year.

x. If the Candidate referred to under Regulation 7.9 has an annual GPA of 1.8 or above in a respective academic year, he/she shall be allowed to proceed with the following academic year otherwise he/she shall clear his/her supplementary examinations before continuing with studies.

xi. If the candidate referred to under Regulation 7.8 did not sit for such postponed exam during the required supplementary sessions, he/she should sit for the postponed examination(s) during supplementary sessions in the following academic year before continuing with studies.

19.5 Assessment Criteria for Various Components of Examinations

Separate assessment criteria for the Doctor of Medicine (MD) Programme are in Section 19.28; Nursing and Midwifery Programme in Section 19.29; and Pharmaceutical Sciences in Section 19.30.

i. 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.

ii. Assessment of courses that have no practical components (Theory Modules) shall be done as follows:

   a. Take-home essays/quizzes/seminar reports/presentations and/or assignments shall account for 20% of the end of semester marks for the course;
   b. Tests during the semester shall account for 20% of the marks; and
   c. The final written paper shall account for 60% of the end of semester final mark for the course.

iii. 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:

   a. Students' reports on practical conducted and practical work shall carry 10% of the assessment.
   b. Take-home essays and assignments that will be given at appropriate stages during the semester session will carry 10% of the assessment.
   c. 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.
   d. The final written paper shall account for 60% of the end of semester final mark for the course.

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

a. Students' reports on practical work shall carry 20% of the assessment.
b. Practical test[s] conducted in each semester shall carry 20% of assessment.
c. The end of semester practical examination account for 40% of the semester final mark for the subject.
d. The end of semester oral examination account for 20% of the semester final mark for the subject.

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

a. Student's research project work/report shall carry 40% of the assessment.
b. The end of semester student oral examination on research project work by student's oral presentation shall carry 20% of the assessment.
c. 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.

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

a. Student's industrial practical training work Report and Diary shall carry 20% of the assessment.
b. Student's industrial practical training Report by the visiting Staff Advisor shall carry 10% of the assessment.
c. Student's industrial practical training Report by the Industrial training officer shall carry 10% of the assessment.
d. The end semester Evaluation of the Field Practical Training (Industrial Practical Training Module) work shall carry 40% of the assessment.

e. 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.

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

a. Students Teaching Practice Assessment Report by the visiting Staff Advisor shall carry 30% of the assessment.
b. Student teaching practice assessment report of the Head of School assessment report work shall carry 20% of the assessment.
c. Evaluation of the teaching practice report shall carry 20% of the assessment.
d. The end of semester student teaching practice by student teacher's oral presentation in review work shall carry 30% of the assessment.

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

ix. 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, failing which he/she cannot proceed to Project work Phase II.

x. Each finalist candidate shall be required to undertake a Project/Research (to constitute the examinable subject "Project/Research Work Phase II") being the execution of research project proposal developed in Project/Research 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 Project/Research was conducted.

xi. The Research/Project report phase II shall be evaluated both internally and externally. Passing in Research Project Phase II report is a requirement for the award of the relevant qualification.

xii. 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 considered incomplete).

xiii. 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.

xiv. 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 by the board of the relevant Department.

xv. 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.

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

a. 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.
b. Practical Training reports shall be handed in for assessment before the end of the second week of the succeeding semester.

xvii. In order for a candidate to pass, he/she must obtain at least 25 per cent of the total coursework marks and 33.3 per cent of the end of the semester examination marks.

xviii. A candidate who absents himself/herself from coursework related assessment(s) other than tests, the missed component(s) will be awarded a dash (-) mark and his/her coursework shall not be computed accordingly. The final status shall be incomplete.

xix. For a candidate to be allowed to complete missed assessment(s), the following procedures shall be followed:

a. Seek permission from the Principal, in writing, prior to his/her absence from the College clearly stating the reason(s) for seeking permission. The letter shall indicate student's personal details including the name, registration number, programme of study and the module in respect of which the permission is sought.
b. In case of sickness, the candidate shall submit to the Principal original medical evidence stamped and signed by a registered medical practitioner within three days (3) of sickness.
c. If the candidate missed an assessment on ground of bereavement:
    i. He/she shall only be excused from attending a tutorial assignment, test or writing an end of the semester examination upon the demise of a father, mother, guardian, father in law, mother in law, sister, brother, child, and spouse;
    ii. He/she, immediately after receiving information about the demise, shall notify the Principal.
    iii. He/she shall submit upon his/her return, either a copy of the death certificate or burial permit or letter from the local government authority of the area where the burial took place.

Marks Allotment – Degree Programmes:

S/N	Modules	Assessment Type	Max Marks	Min Total (required)	Max Mark
1	Theory	CAT's	20	40	100
		Assignment	20		
		End exam	60		
2	Theory cum Practical	CAT's	20	40	100
		Assignment	10		
		Practical	10		
		End Exam	60		
2	Practical	Record Work/Model Practical	40	40	100
		Demonstration	40		
		Viva voce	20		
3	Project Work	Project Report	40	40	100
		Evaluation	40		
		Viva voce	20		
4	IPTR/ Teaching Practice	Performance Report	40	40	100
		Evaluation	40		
		Viva voce	20		

Marks Allotment – Diploma Programmes:

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

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

19.6 Dates and Duration of Examinations

i. Examinations in all Colleges shall be held at the end of each semester/clinical rotation.

ii. 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/clinical rotation.

iii. 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/clinical rotation examinations.

iv. Frequency of continuous assessment tests shall be at least two for each module.

v. Dates for the end of semester examinations shall be published in the University's academic calendar.

19.7 Conduct of Examinations

i. Overall co-ordination of the University Examinations shall be the responsibility of the DVC-ARPE through the Controller of Examination Office.

ii. Subject to approval by the Senate, Examination Committee of each College shall make such internal examination regulations 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.

iii. End of semester/Clinical rotation/Practical/Project examinations shall be coordinated and conducted under the control of the College Examination Coordinator in collaboration with the CoE office.

iv. The question papers and the marked scripts for all end of semester examinations shall be moderated by an approved external examiner. The same external examiner shall moderate the assessment of the phase II project presentations, demonstration and reports.

19.8 Examination Irregularities and Procedures

i. It is prohibited for any candidate to commit an examination irregularity during the examination in the examination room/hall or premises.

ii. All cases of alleged examination irregularities, including absence from examination, possession of unauthorized material in the examination room, or cheating in examination, shall be reported to the to the College Examination Office immediately after the end of the particular examination by the chief invigilator. The College Examination Officer will submit all evidence to the special enquiry committee that will be constituted by the Principal, which shall have power to summon the students and members of staff of the University, as it deems necessary and make decisions. The decision must be communicated to the Principal. The principal will inform the student in writing.

iii. Examination irregularities shall include but not limited to:

a. making unauthorized verbal communication with and/or gesturing to another candidate;
b. being in possession of and/or using any unauthorized materials;
c. exchanging documents or Answer Books and/or Answer Sheets;
d. assisting another candidate in writing his/her examination;
e. providing answers to another candidate;

f. copying from another candidate;
g. removing Question Paper, Answer Books and/or Answer Sheets from an examination room/hall or premises;
h. involved in unauthorized removal of an examination Answer Book(s) and/or Answer Sheet(s), any part of an examination Answer Book(s) and/or Answer Sheet(s) or blank examination stationery from the examination room/hall or premises except by a person with designated authority to do so;
i. tearing whole or any part of the Answer Books and/or Answer Sheets;
j. entering into an examination room/hall or premises with unauthorized materials as stipulated under Regulation 11.17;
k. borrowing materials from another candidate(s) in the course of examination; materials including but not limited to, calculators, rulers, pens/pencils, and slide rules;
l. causing disturbance in or near an examination room/hall or premises;
m. interfering the invigilator(s) from performing his/her duties in the course of the examination;
n. impersonating another candidate;
o. undertaking any conduct likely to give an unfair advantage;
p. involved in fraudulent alteration or misrepresentation of data and/or other information;
q. attempting to do any of the acts described in (i) to (xvi);
r. destruction or falsification of any evidence of irregularity; and
s. Unauthorized absence from examination.

iv. For the purpose of dissertations, fieldwork reports and project reports, examination irregularities shall include the following:

a. Plagiarism;
b. Using a "ghost" writer to author a dissertation, fieldwork report or project report;
c. Falsifying documents of Institutions or authorities relating to fieldwork;
d. Placement; and

e. False representation as to the attendance of the fieldwork activities.

v. Other types of irregularities with their penalties are as follows:

a. 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 special enquiry committee.

b. Candidates shall not be allowed to borrow materials of any kind including calculators, rulers, statistical tables, pencils, erasers 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 special enquiry committee for investigation. Such a candidate shall however be allowed to continue with examinations during the period of investigation.

c. Except for medical reasons intimated before the start of examination, no candidate will be allowed to chew or drink anything while in the examination venue. A candidate found to be doing so and refuses/unable to produce exhibit of the material being consumed 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 Examination Officer for investigation by the special enquiry committee.

d. 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 Examination Officer from sitting for subsequent examinations and have failed in the whole of that examination for that year and shall be discontinued from studies.

e. 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.

f. Member(s) of staff of the same gender with a candidate shall do body search of a candidate suspected of carrying unauthorized materials.

vi. The representative of CoE at the respective department shall refer a matter, which involves a candidate committing examination irregularity to the special enquiry committee that will be formed by the Principal for hearing, deliberation and decision on the reported irregularity.

vii. The representative of CoE at the respective department shall present a case against a candidate alleged to have committed an examination irregularity to the special enquiry committee.

viii. The special enquiry committee shall investigate all cases of examination irregularities as directed by the Examination Officer upon receiving reports from invigilator(s).

ix. The special enquiry committee, 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.

x. A candidate who shall be found guilty of committing examination irregularities shall be discontinued from studies.

xi. A candidate who has been found guilty and punished in accordance to regulation 11.10 shall be informed in writing of his/her right to appeal against the decision to the Examinations Appeals Committee. The appeal

must be submitted within seven (7) working days from the date of receiving the letter from the Principal containing the decision made by the special enquiry committee.

xii. After hearing and deciding an appeal lodged in accordance to regulation 11.11 the Examinations Appeals Committee shall prepare and submit a report to the Chairperson of the Senate Examination Committee.

xiii. The decision reached by the Senate in an appeal is considered to be Final.

xiv. A non-refundable appeal fee of TZS 50,000/- must accompany all appeals.

xv. All cases of examination irregularities shall be concluded within three months of reporting to the Examination Officer.

xvi. The status of a student, who has been discontinued from studies due to commission of an examination irregularity, shall be discontinued for examination irregularity.

xvii. In this examination regulations:

a. "Unauthorized material" includes any electronic, 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 a College, 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 Examination Officer;
b. "Unauthorized Attire"; No candidate shall be allowed to enter an examination venue while wearing a cap or hat. However, under special circumstances, such as medical grounds, and upon request, the Examination Officer 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 Examination Officer 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; and
e. "Cheating in examination" includes any form or kind of dishonesty or destruction or falsification of any evidence of irregularity.

19.9 Plagiarism

i. A candidate who appropriates the writings or results of other persons, whatever the medium (text, written or electronic, computer programs, 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:

a. The candidate has submitted or presented the work of another person as his or her own;
b. The candidate has submitted the same, or substantially the same work more than once at the same or another institution;
c. The candidate has fabricated or falsified results/data;

d. The candidate has omitted due acknowledgement of the work of another person;
e. 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
f. The candidate has used, by payment or otherwise, a third party to produce Research Project report or product or any assignment write-up in whole or in part.

iii. All cases of alleged plagiarism shall be reported to the Examination Officer who shall refer them to the special enquiry committee for investigation.

iv. 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 product and therefore the candidate being required to re-write or re-take the research work;
b. DISCONTINUATION from studies; or
c. DEPRIVATION of a degree, non-degree award or any other academic credentials already awarded by the university.

19.10 Processing and Publication of Examination Results

i. Immediately after the completion of writing of examinations by candidates all members of academic staff shall be required to mark the Answer sheets and/or Answer booklets and process the examination results in accordance with the guidelines prescribed by the DVC – ARPE.

ii. The marking of the Answer sheets and/or Answer booklets shall be done at the place and for the period appointed by the CoE.

iii. The provisional results of candidates in every examination, arranged in a manner as provided under this examination regulation shall be published by the Principal soon after the College Examination Committee meeting but the results shall not be regarded as final until they are confirmed by Senate.

iv. Publication and custody of the final approved examination results as approved by Senate shall be the responsibility of the DVC-ARPE.

xii. The results may be published on notice boards, newspapers, information systems or websites at the discretion of the relevant College/Department. The anonymity of the candidate must be protected in publishing results e.g. using the student's examination number rather than names.

v. Senate shall confirm the results of examinations at a time to be determined by Senate.

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

vii. 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.

19.11 Classification of Degrees and Diplomas

i. For purposes of the final classification of degrees and where applicable, a five-point system shall be used in averaging the final grades.

ii. The letter grades will be assigned points as follows:

A	B+	B	C	D	F
5	4	3	2	1	0

UQF Level 8 DEGREE		
Grade	**Definition**	**Suggested Score**
A	Excellent	70 – 100
B+	Well Above Average (Very Good)	60 – 69

B	Above Average (Good)	50 – 59
C	Average (Satisfactory)	40 – 49
D	Below Average (Poor)	35 – 39
F	Failure	0 – 34
I	Incomplete	

NTA Levels 6 (DIPLOMA)		
Grade	**Definition**	**Suggested Score Range**
A	Excellent	75 – 100
B+	Well Above Average (Very Good)	65 – 74
B	Above Average (Good)	55 – 64
C	Average (Satisfactory)	45 – 54
D	Below Average (Poor)	35 – 44
F	Failure	0 – 34
I	Incomplete	

NTA Levels 4 & 5		
Grade	**Definition**	**Suggested Score Range**
A	Excellent	80 – 100
B	Above Average (Good)	65 – 79
C	Average (Satisfactory)	50 – 64
D	Below Average (Poor)	40 – 49
F	Failure	0 – 39
I	Incomplete	

iii. Approved courses given for each degree shall be appropriately weighted in terms of credits.

iv. To get the score for each course multiply the points, as in 14.2 by the weights, as in 14.3.

v. The total score for the degree shall be the total score for all countable courses constituting the minimum number of course credits for the degree, computed as in 14.4.

vi. The Grade Point Average (GPA) for the degree shall be computed by dividing the total score in 14.5 by the total weight obtained under 14.3 and truncating down to one decimal point.

vii. The final classification shall be as follows:

Class	Grade	GPA Range
First Class	A	4.4 – 5.0
Upper Second Class	B+	3.5 – 4.39
Lower Second Class	B	2.7 – 3.49
Pass	C	2.0 – 2.6

viii. Award of Honours Degree: A degree with honours shall be awarded to a candidate obtaining a First division where the candidate has passed all examinations at first sitting without supplementary examination or carry over in any particular academic year.

ix. The MD Degree will not be classified.

19.12 Classification of Awards

i. A candidate shall qualify for the award registered for if:

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

to a pass.

b. He/She has passed all industrial practical training modules / Teaching Practice / Clinical and Community Medicine Practice Rotations etc.

c. He/She has passed projects/Field and Elective Research Projects (where applicable).

d. He/She has paid required fees / cleared their no dues.

e. He/She has fulfilled any other terms and conditions established by the Senate or Council.

ii. The calculation of GPA shall be a truncated score to one decimal place. For example, 4.39 shall be taken as 4.3; 4.09 shall be 4.0; and 3.98 shall be 3.9. The classification of award at a particular level shall reflect the grading system in the same level.

iii. Award Classification for Basic Technician Certificate (NTA Level 4) and Technician Certificate (NTA Level 5)

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

iv. Award Classification for Ordinary Diploma (NTA Level 6) & Degree (UQF Level 8)

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

v. Award of Honours Degree:

A degree with honours shall be awarded to a candidate obtaining a First division where the candidate has passed all examinations at first sitting; without supplementary examination in any particular academic year.

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 Committee 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.

19.13 Certificates, Certification and Academic Transcripts

i. The Council shall award certificates for Degrees, Diplomas or other awards to such students as shall be recommended by the Senate to the Council for conferment of such degrees, diplomas or other awards after graduation.

ii. An appropriate fee in TZS for Tanzanian students and in US Dollars for international students as prescribed by the University shall be charged for preparing an academic transcript. Any graduate desirous of obtaining a transcript(s) shall submit an application for such an academic transcript(s), a clearance form and one current passport size photograph for the preparation of academic transcript.

iii. An appropriate fee in TZS for Tanzanian students and in US Dollars for international students as prescribed by University shall be charged for certifying each copy of the certificates and academic transcripts.

iv. In case of either loss or total or partial destruction of the original certificate University might issue a copy on condition that

a. The applicant produces a sworn affidavit;

b. The replacement certificate shall be stamped “COPY” across it;

c. The applicant must declare the loss in local newspapers and a copy of the advertisement be produced to the University;
d. The applicant will have to wait for not less than 12 months after the declaration of the loss in newspapers;
e. A replacement will be done within a short time if a part of the destructed certificate is produced depending on circumstances;
f. An appropriate fee in TZS for Tanzanian students and in US Dollars for international students as prescribed by University shall be charged.

v. For a student to qualify for the best student award, the student must have had not supplemented or postponed a final examination or part of it.

vi. Upon application for a transcript, a student or former student shall be given a transcript of his/her academic performance record with prescribed fee. 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). The Examination Officer only shall be responsible for the award of transcripts and statements of results.

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

viii. 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.

19.14 Loss of Certificate

i. In case of loss or partial destruction of the original certificate or a copy thereof, the students should submit the application to DVC Academic in writing. The University may issue a copy of an Award Certificate & Consolidated Statement of Marks in case of loss of the original on the following conditions:

a. The applicant must produce evidence that the loss had been adequately publicly announced, including a written report from the Police.
b. The applicant produces a sworn affidavit.

ii. The replacement of certificate will not be issued until a period of 3 months from the submission of applications.

iii. The certificate or transcript so issued shall be visibly marked "DUPLICATE" A non-refundable fee of TZS100,000 or equivalent for Award Certificate and TZS 60,000 or Equivalent for Consolidated Statement of Marks shall be charged, for a copy of the certificate or transcript issued.

iv. A fee prescribed from time to time by University Council shall be charged for the copy of certificate issued.

19.15 Procedure for Examination Related Appeals

i. A candidate who is not satisfied with his/her provisional examination results shall have the right to appeal against such results.

ii. A candidate shall only be allowed to appeal against his/her provisional results in respect of Final or Supplementary Examination.

iii. In lodging an appeal against examination results, the following procedures shall be followed:

a. The appeal shall be lodged within fourteen (14) days counted from the day of publication of the provisional results.
b. The appeal shall be lodged through the Student Information System or any other appropriate system that will be determined by the CoE.
c. The appeal shall be accompanied by an appeal fee.

iv. The CoE shall submit all examination results appeals to the Examination Appeals Committee for review.

v. The CoE shall present details of each appeal and recommendations from the Examinations and Appeals Committee to the Senate Examination Committee for deliberations and approval.

vi. No revaluation or remarking is permitted for practical/clinical practice modules.

vii. Candidates can apply for Answer Scripts Viewing by paying a non – refundable fee of TZS 10,000/- per Answer Script within Seven (7) days from the date of the provisional publication of results using prescribed forms. The Answer Script Viewing will be done at CoE office only. Unauthorized materials such as pen, papers, electronic devices, etc will not be allowed during the Answer Scripts Viewing exercise. No scripts' viewing is permitted for practical modules.

viii. Candidates not satisfied with the marking, may apply for re-evaluation on payment of non-refundable fee of TZS 50,000.

ix. The Examinations Appeal Committee shall be an appeal board and the candidate may be present at an appeal hearing.

x. Appeals shall initially be considered by the Examination Appeals Committee and forwarded to the Senate Examinations Committee.

xi. The decision reached by the Senate Examination Committee in an appeal is considered to be final.

xii. The Senate shall consider recommendations of the Senate Examination Committee regarding appeals.

19.16 Answer Books and Preservation of Examination Scripts

i. On the cover of the University answer books there shall be a space for entry of the date of examination.

ii. To forestall illegal use of examination answer books before and after examinations, invigilators should ensure candidates enter both the

examination number and the serial number of the answer book in the candidate-signed examination list.

iii. The University shall preserve examination scripts for the purpose of reference for a period of two academic semesters after the end of the respective examinations.

19.17 Disposal of Examination Answer Books and Other Scripts

i. Unless otherwise retained by University Library for archival purposes all used examination answer books can be destroyed after the expiry of 13 months following final decision of Senate on the examination concerned.

ii. Exam Office concerned shall, with respect to examination answer books:

a. Create and maintain adequate records of actions and transactions affecting examination answer books, ensure that those records are properly maintained while waiting for any appeal or final disposal;
b. Initiate the disposal procedures of those examination answer books for which there is no further need;
c. Initiate disposal of used examination answer books that have been stored by the departments for more than13months following respective Senate decision;
d. Identify and safeguard those examination answer books which are of enduring value and which should be preserved as archives and made available to the Library for research and public consultation;
e. Assist the University Library in selecting examination answer books designated for archiving purposes; seek expertise from University Library to assist in the sampling answer books ear- marked for archiving; designate a place or room as storage area for examination answer books awaiting appeals or final disposal;
f. Seek permission from the Vice Chancellor to dispose the examination answer books through DVC - ARPE. The request shall indicate the courses (including the sat session and academic year) whose scripts are to be destroyed.

g. Witness and keep close control over final disposal of examination answer books to ensure the confidential nature of contents of answer books remain inviolate.

iii. Pending final disposal, Exam Office shall ensure all information contained in examination answer books remain inviolate and is protected from misuse or abuse.

iv. Respective College or Departmental Examination Committee shall be responsible for prescribing under their special regulations clear guidelines for returning to the students formative graded courses, assignments, course essays, term papers and timed essays.

v. Unless otherwise retained for archival purposes, Departments shall also initiate the final disposal of such other examination scripts as essays, objective question papers, Laboratory works/clinical or community field study reports and elective research study reports, models, studio papers or drawings that have been in retention or storage for the previous 13 months.

vi. The DVC - ARPE shall cause to be prepared a disposal and storage budget and designate the cartons of various sizes or descriptions, which shall be used by Head of Departments for 13 months storage of examination answer books pending final disposal.

vii. The cartons prescribed under sub-paragraph (a) above shall be so marked or labeled as to facilitate identification of the course, examination date, date of Senate decision, course coordinator and date when final disposal shall be due.

viii. University Library shall keep and maintain in any format including electronic, all answer books selected by departments and sent to the Library for archival purposes.

ix. The DVC-ARPE shall select and announce the best available practice in disposing of the examination answer books due for disposal;

x. Depending on such pertaining circumstances as privacy of information contained, cost involved and environmental considerations, the DVC-ARPE may with respect to any batch due for disposal, direct:

a. The disposal by shredding and then disposed of by either burning or selling to recycling companies to be reused in producing other paper materials; or
b. Used examination papers be entirely burnt/incinerated or macerated to completion.

xi. The Vice Chancellor on recommendation of the DVC-ARPE shall be the principal executive officer responsible to order final disposal of any batch of examination answer books.

xii. Head of Departments shall witness final disposal of itemized examination answer books and signify the disposal.

xiii. The report of Head of Departments to the DVC-ARPE through respective Principals on disposal of examination answer books shall be accompanied with list of courses (including the sat session and academic year) whose scripts were destroyed.

19.18 Conduct of Examinations - Instruction to Candidate

i. These instructions should be read together with the above University regulations.

ii. All students sitting for examinations shall be in possession of a valid Student ID card and hall ticket, which is to be placed on the top right-hand corner of the desk throughout the examination for Invigilators to check. Students without their ID card and hall ticket shall not be permitted entry to the examination room.

iii. Candidates must acquaint themselves with the seating arrangement for their respective examinations in advance.

iv. Candidates are advised to be at the examination centre at least fifteen minutes before the commencement of the examinations. If they are 10 minutes late (after the start of the exam) they need to be given permission by the Head of Department.

v. Candidates will be admitted by the invigilator to the examination room ten minutes before the time the examination is due to begin. Papers will be placed ready on the desks before they enter. They must not begin writing before they are told to do so by the Senior Invigilator. (Where large numbers of candidates are affected, invigilators may admit candidates to the examination room fifteen minutes in advance). During these ten minutes the Senior Invigilator will:

a. Make an announcement to the effect that all unauthorized materials should be removed from the examination room.
b. Make an announcement to the effect that candidates should satisfy themselves that they are in possession of the correct paper.
c. Call attention to any rubric at the head of the paper which seems to require attention.
d. Announce that both sides of the paper must be used. He/she will then tell students when they may begin writing. Candidates will be given a maximum of ten minutes to read the paper.

vi. Candidates are not allowed to borrow or exchange items such as rulers, pens, pencils and calculators during any examination.

vii. Candidates are permitted to do rough work on the scripts on the understanding that this is crossed through at the end of the examination.

viii. Students who wish to leave the venue during an examination session must:

a. First ensure that the answer book(s) and papers bear their registration numbers, degree programme and course code (even if no attempt has been made to answer any question).
b. Raise a hand and wait for an invigilator and leave only when the invigilator has signified his/her assent and accompanies the student.

ix. Candidates into the room may take no books, bags or attached cases. Candidates are not normally allowed to use their own logarithmic tables. (Candidates attention is specifically drawn to General University Examination Regulation No. 11.1 to 11.3). Students should bring only permitted items to the examination; the University assumes no responsibility for personal property lost in or near any examination room.

x. Once a student is found with unauthorized materials, he/she should sign on the materials to confirm they are his or hers

xi. No candidate will be permitted to enter the examination room after the lapse of thirty minutes examination room until thirty minutes have expired.

xii. A student denied admission to the examination under these regulations might apply to the College for a special sitting during the forthcoming supplementary examination; such application shall however be subject to scrutiny of the veracity of the claim.

xiii. At the end of the examination period, and on instructions from the Invigilator, candidates must stop writing and assemble their scripts, which they should personally hand to the invigilator unless instructed otherwise. Candidates must remain seated till the Invigilator tells them to leave the room. Apart from the examination paper, candidates are not allowed to take any examination material out of the examination room.

19.19 Instruction to Invigilators before the Examination

i. Persons other than course instructors shall invigilate university Examinations. Course instructors shall only be allowed in the examination room in the first ten minutes to provide clarifications on the examination questions, if any.

ii. Invigilators should be present in the examination room at least ten minutes before the commencement of the examination.

iii. Invigilators will be provided with the following items by the Examinations Officer:

   a. The question papers to be attempted by candidates.

      Note: Sealed envelopes containing question papers must be personally collected by each invigilator from the said Examinations Officer at least twenty minutes before the examination. All invigilators who have reported to the Examinations Officer within this period should immediately proceed to their respective examination room.

   b. A list showing the names of the papers to be attempted in the room (This will be distributed to invigilators in advance).

iv. Invigilators must ensure that ONLY ONE answer book is provided for each candidate unless the rubric on the question paper requires otherwise. The answer book must be filled before any additional paper is provided.

v. Question papers and any other material prescribed in the rubric (e.g. log-tables, charts etc.) should be set out by the invigilator with the help of the Internal Examiner.

vi. Candidates must write their registration numbers and degree programmes on the cover page of the answer book before they start to write the examination.

vii. Food, drinks (except where water is permitted-see below), cigarettes, laptops, recording or playback devices, and other electronic communication devices such as a cell or smart phones, bags, purses,

hats, books attached cases, papers and other related items are not permitted in the examination room. The University assumes no responsibility for personal property lost in or near any examination room.

viii. Students with approved health conditions may bring (transparent) bottled water into the examination room. Such students will have to be seated away from other students to avoid accidental spillage.

ix. Invigilators should admit candidates to the examination room ten minutes before the commencement of the examination and they should ensure that they take the right places. Where big numbers of candidates are involved, invigilators may admit candidates to the examination room fifteen minutes in advance.

*Invigilators are requested to stick to this arrangement. During these ten minutes the invigilator should:

a. Make an announcement to the effect that unauthorized materials are not allowed in the examination room;
b. Make an announcement to the effect that candidates should satisfy themselves that they are in possession of the correct paper;
c. Call attention to any rubric at the head of the paper which seems to require attention; and
d. Announce that, where this is practicable, both sides of the paper must be used. He/she should then tell students when they might begin writing. Candidates will normally be allowed a maximum of ten minutes to read the paper.

x. It is mandatory for all students sitting examinations to be in possession of a valid Student ID card, that is to be placed on the top right-hand corner of the desk throughout the examination for Invigilators to check. Students without their ID card shall not be permitted entry to the examination room, and shall be directed to the HoD to obtain a valid ID card.

xi. Invigilators should not admit candidates to the examination room after half an hour from the commencement of the examination and should not permit them to leave the room until thirty minutes have expired.

During the Examination

i. At the commencement of the examination, invigilators should remind candidates to ensure that they are attempting the right examination paper.

ii. At the end of the first half hour the total numbers present should be noted down. Invigilators should then collect the blank answer-books from all vacant places. The Internal Examiner should return spare question papers to the correct envelopes for collection. It is at this time that candidates should start to sign the examination attendance sheet. During the exercise, invigilators should also make sure that the photo on the candidate's ID card matches the candidate's face and that the registration number on the ID card is the same as the one written on the answer book.

iii. Invigilators should minimize announcements during the examination.

iv. An invigilator shall not allow candidates to borrow or exchange items such as rulers, pens, pencils and calculators during the examination.

v. During the examination, invigilators should ensure that candidates are provided with any additional requirements (e.g. scripts, blotting-paper, log-tables etc.). All rough work must be done in the Answer Book and crossed through.

vi. No candidate should be permitted to leave his/her place during the examination except to leave the examination room.

vii. A candidate may, with the permission of the Invigilator, leave the examination room briefly only if accompanied by an assigned assistant Invigilator. Candidates will not be readmitted to the examination room after they have left the examination room unless, during the full period of their absence, they have been under approved supervision.

viii. Permission to leave the examination room shall be granted in exceptional circumstances as invigilators are expected to remind candidates to go for short calls before they enter the examination room.

ix. A candidate who contravenes the regulations and instructions governing the examinations, especially by unfair practices such a copying from or communicating with other candidates shall be reported immediately to the Examinations Officer.

x. Once a student is found with unauthorized materials, the invigilator should ask the student to sign on the materials to confirm that they are his/hers. PROVIDED that where a candidate/student refuses to sign on the material, the examination officer shall request another invigilator to witness and counter sign stating the candidate has refused to sign the material.

xi. The candidate shall be informed that he/she has contravened the regulations and that he/she has been reported, but shall not be prevented from continuing with his/her paper. A written report must be sent to the Head of Department, through the Examinations Officer, including full details of the contravention. It is part of the invigilator's duty to move about the examination room as quietly as possible at frequent intervals.

xii. Invigilators shall have the power to confiscate any unauthorized book; manuscript or other aid brought into the examination room and to expel from the examination room any candidate who creates a disturbance. They shall report to the Examinations Officer any case of a candidate suspected of giving or obtaining unauthorized assistance or of attempting to do so, and that officer shall have power to take any further steps he/she may consider necessary. He/she shall then report the matter to the Examination Officer.

xiii. Where a candidate has fallen ill during the examination and has informed the invigilator that he/she is not able to continue with the examination, the Invigilator shall report and seek the assistance from the Dean of

Students who shall take the appropriate measures to ensure that the candidate receives medical attention. The Invigilator shall report the incident to the examination office.

xiv. Upon receiving report about illness of the candidate during the examination, examination office shall report to the relevant College Principal who shall take the appropriate measures immediately.

At the End of the Examination

i. Invigilators shall not permit candidates to leave their places before their scripts have been collected. Candidates who wish to leave the examination room before the end of the examination shall hand over their scripts to the invigilator before leaving the examination room. At ten minutes before the conclusion of the examination period, the Invigilator shall announce the time remaining. Candidates may not leave their seats in the examination room after this time (except in case of emergency) until all papers have been collected. At the end of the examination period invigilators shall instruct the candidates to stop writing and then collect all the scripts.

ii. Invigilators shall enter the number of examination scripts collected from the candidates on the attendance sheet provided by the Examination Officer at the time of collecting the examination papers. Invigilators shall sign the said attendance sheet before they hand over all the scripts to Examination Office. On receipt of the scripts, Examination Officer will check them and countersign on the collection form. The attendance sheets must be handed to the Examinations Officer at the end of each session.

iii. Invigilators shall hand over all extra examination papers and answer books to the Examination Office.

19.20 General Guidelines and Instructions

i. All candidates are required to be present within the examination premises 30 minutes before the scheduled time of the examinations.

ii. No candidate shall be admitted to the examination room 30 minutes after the commencement of the examinations or leave the room within the last 30 minutes into the end of the said examinations. Permission to go out temporarily during the examination shall only be provided under special circumstances by the Invigilator.

iii. A candidate reporting late (more than 30 minutes after the start of examination) shall be barred from sitting for the examination and his/her case reported to the Examination Officer.

iv. A candidate who is barred from sitting for the scheduled end of semester examination for reporting late shall, upon the Examination Officer being satisfied with justifying reasons, be allowed to sit for the examination during the subsequent supplementary examination period.

v. In the case of continuous assessment test a candidate barred from sitting for a test for reporting more than thirty minutes after the start of the test for compelling reasons, may be allowed to do the missed test before the end of the semester. In the case where the candidate reporting late for a test had no compelling reason(s), such a candidate shall be considered to have absconded (hence awarded dash mark).

vi. Internal Examiners (or their deputies) are required to attend in the examination rooms at the commencement of each period to assist the invigilators and to collect the scripts. Instructions, which the examiners (or their deputies) may wish to be give, should be announced by the invigilators.

vii. The Use of Calculators in Examinations:

a. Any calculator permitted to be taken into an examination must be hand-held, self-powered and noiseless. It must not make use of an audible alarm or facilities for 'wireless' transmission or reception of information.

b. For examinations with College/Department approved (standard) calculators, the examination invigilator will ensure that only the

specified calculator is used for the examination; otherwise the instructors are responsible for ensuring that only the calculators they have specified are brought into the examination room.

c. If a range of calculators is allowed in a test or examination, consideration be given to ensuring fairness by setting a test or examination which takes into account the differing capabilities of the calculators.

19.21 Processing of Tests and Examinations

i. The course lecturer must prepare and submit two sets of question paper along with marking scheme for End of Semester Examination for each course by the eight week of the semester.

ii. The course lecturer shall also prepare and submit one set of question paper along with marking scheme for Supplementary examination for each course by the eight week of the semester.

iii. The course lecturer must prepare and submit one set of question paper along with marking scheme for Continuous Assessment Tests by two weeks before the Continuous Assessment Examination.

iv. The HOD shall nominate the Internal Moderators for the Continuous Assessment Tests. The moderator will check for compliance to accepted format, use of correct language, duplication of questions, assessments of all outcomes the standard of the question paper and the correctness of the solutions.

v. The Senate Examination Committee (SEC) shall approve and appoint an External Examiner for each program. The External Examiner will moderate all Question papers, examination papers and related documents concerned to the respective program in the office of CoE.

vi. The CAT answer papers and assignments will be under the custody of the respective department. However, The End semester examination papers will be under the custody of CoE.

vii. The College Principal will appoint invigilators and the list will be made available to the Examination Office.

viii. On the examination Day, the invigilator must collect exam materials (including the sealed examination envelope for the module to be examined) from the Examination Office. After the examination the invigilator must return the scripts and any other documents to the Examination Office. The CoE will assign dummy numbers to all the answer scripts as per the range list for Confidentiality. The dummy numbering works must be done under the directives of the DVC-ARPE. The examiner must collect the scripts from the Examination Office for marking.

ix. Marking of Answer Scripts should be carried out in the designated area provided by the CoE not otherwise. All answer scripts shall be marked by recommended markers approved by Senate Examination Committee (SEC) who are professionals/ lecturers knowledgeable in the specific subject or field.

x. The marking must be done thoroughly according to the marking scheme. Markers must award part marks for correct methods. Marks awarded for each section must be shown in red ink. Wrong answers must be marked wrong with a cross in red and correct answers must be ticked in red. Irrelevant answers must also be indicated as such. The total marks for each section must be placed on the left-hand margin of the page.

xi. The same lecturer should be responsible to compile the marks in a standard template after marking.

xii. The external examiner must be invited again to moderate the marking of the scripts for the End of Semester Examination. At this time the external examiner will select a sample of scripts from each course and confirm adherence to the marking scheme, accuracy of added marks, transfer of marks to the template, and consistency of the marking for different students.

xiii. The internal and external examiner shall meet to adjudicate the final mark particularly where the difference is greater than 5 marks. Otherwise the final mark shall be the average of their marks.

xiv. The Departmental Examination Committee shall meet to compile, discuss, and evaluate the examination results of the program and forward to the College Examination committee with comments.

xv. The College Examination Committee receives the examination results from all the departments. The College Examination Committee shall compile, evaluate and provisionally approve the result and forward it to the Senate Examination Committee with comments.

xvi. The Senate Examination Committee receives examination results from various college examination committees and Examinations Appeals Board. The Senate Examination Committee compiles, discuss, evaluate, moderate and provisionally approves the result and forwards it to the Senate for final approval.

19.22 Conditions for Progressing from Semester to Semester and from Year to Year

i. A student shall be allowed to progress in his/her studies from one semester to another during the particular academic year if he/she:

a. Has not absconded from studies
b. The student must have paid all fees as prescribed by the University
c. Has complete result as stipulated under Regulation 6.1 (c).

ii. A student shall be allowed to progress in his/her studies from one academic year to another if he/she:

a. Passes all modules examined in the two semesters of the preceding year of study.
b. Meets the conditions for carrying forward the modules failed as stipulated under Regulation 27.1.

c. Was allowed to postpone the supplementary examinations as stipulated under Regulation 7.10.

iii. Academic status of any student covered by these regulations will be determined annually.

19.23 Conditions for Supplementary Examinations

i. There shall be a supplementary examination session after the release of second semester examination results of a particular year of study.

ii. A candidate who fails in the first attempt shall be allowed to sit for supplementary examinations provided that he/she does not fail in more than half of the modules examined during a particular academic year.

iii. A candidate who sits for supplementary examination(s) shall be assessed exclusively on the basis of his or her supplementary examination results and his/her course work scores shall not be considered**.**

iv. The grade for supplementary examination shall be "C" for any score equal to or above the pass mark score depending on the grading system of the relevant programme.

19.24. Conditions for Carrying Forward failed Modules

i. A student shall be allowed to carry forward the failed module(s) provided he/she has not exhausted his/her maximum registration period.

ii. In order to carry forward a module the following conditions shall apply:

a. The module(s) must have been done and failed as a supplementary examination.
b. A candidate who scored an annual GPA of 1.8 or above after Supplementary Examination, shall be allowed to carry over module(s) into the subsequent academic years.
c. Examinations for carried forward modules shall be done only during the Supplementary examination season.

d. No coursework shall be considered in assessing the carried forward module(s).

e. The grade for any carried forward module shall be "C" for any score equal to or above the applicable pass mark

f. A candidate who fails in examination(s) which is/are required to make the minimum pass credits for any module after three attempts shall be discontinued from studies.

iii. A student who carries forward a module may attend lectures and/or tutorials and do assignments at his/her convenience.

19.25 Conditions for Repeating an Academic Year

i. In allowing a student to repeat a year, decision taker, among other things, shall consider the following maximum registration period allowed for the following programmes

PROGRAMME	NORMAL DURATION (YEARS)	MAXIMUM REGISTRATION PERIOD (YEARS)
Basic Technician Certificate	1	2
Ordinary Diploma	2	4
Bachelor Degree (Education)	3	5
Bachelor Degree (Engineering and Technology)	4	6
Doctor of Medicine	5	7

ii. A student pursuing Ordinary Diploma, Bachelor Degree course shall be allowed to repeat a particular academic year only once provided that he/she has not exhausted his/her maximum registration period and if he/she:

a. Fails in more than half of the modules examined during a year and has an annual GPA of above 1.5 but less than 1.8 after Supplementary Examination in respect of that particular academic year.

b. Meets conditions stipulated under Regulation 10.

c. Is charged with an offence of violating examinations regulations and punished to repeat a year.

iii. A Basic Technician Certificate student shall not be allowed to repeat a year of study.

19.26 Postponement of Studies

i. A student may be allowed to postpone studies in a particular semester or year of study only once on acceptable grounds as approved by the Principal and the permission shall be reported to the respective College Examination Committee.

ii. A student who postpones a semester will only rejoin in the next year of study. Such a student will have to redo all the coursework.

iii. A student who is eligible to repeat a year may be allowed by Principal of the College to postpone the year of study by only one (1) academic year on acceptable grounds and the permission shall be reported to the respective Examination Committee

19.27 Conditions for Discontinuation/Voluntary Exit from and Readmission to Studies

i. A student shall be discontinued from studies if he/she:

a. Fails in more than half of the modules examined during the year and has an annual GPA of less than 1.5 in respect of that particular academic year.

b. Absents himself/herself from the examination without permission from the Principal.

c. Is proved to have violated examination regulations or to have committed any act of dishonesty or gross indiscipline even if unrelated to academic matters.

d. Fails to attend a Fieldwork placement allocated to him/her and has not done the project assignment without acceptable reason(s) determined by the College Principal.

e. Has exhausted the maximum registration period applicable in his/her respective programme.

ii. A student who has earlier been discontinued from a programme of study on academic grounds other than involvement in an examination irregularity may be enrolled again to his/her former programme or any other programme offered by the University after the lapse of one year, subject to having satisfied the applicable entry requirements. Re-admission in the same programme shall be done only once.

iii. A student who was discontinued from any programme on disciplinary grounds or involvement in an examination irregularity shall not be re-admitted to the University in any programme.

19.28. Additional Examination Regulations for 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 three or more courses in semesters one (1) to four (4) in an audit year, shall be discontinued from studies regardless of GPA. To pass a course a candidate has to pass all modules in that course.

x. A candidate who fails in first 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 provided the GPA is 1.8 or higher. A candidate who fails the second supplementary in basic sciences or junior rotation 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 course modules in semesters 1 to 4 of the programme.

xii. A candidate who obtains a GPA of 1.8 or higher in the first 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 and contribution by written and clinical examinations as per regulations (31.5) above.

xiv. A candidate who fails the Junior Clerkship in any subject(s) shall be required to do supplementary rotations(s) during the long vacation after semester VI and must pass before he/she can be allowed to proceed to the Intermediate Clerkship (4th Year). A candidate who fails the Intermediate Clerkship in any subject(s) shall be required to do supplementary Clinical/Community Medicine rotation(s) and must pass before he/she can be allowed to proceed to the Senior Clerkship (5th Year). A candidate who fails the Senior Clerkship (5th Year) in any subject(s) shall be required to do a supplementary rotation after semester 10.

a. The supplementary rotation is half the duration of the regular rotation. For rotations which have less than 6 weeks duration, the period of supplementary rotation will be the full duration.
b. The maximum tenure of 14 semesters shall not be exceeded.
c. All supplementary rotations for the Junior, Intermediate and Senior Clerkships shall comprise both Theory and Clinical Examinations.
d. Students who fails supplementary examination(s) in the Junior Clerkship (3rd year) or Intermediate clerkship (4th year) in clinical

subjects or Community Medicine shall be required to freeze studies and do supplementary rotation(s) with examination when next offered and pass before progressing to the next year of study.

e. A candidate who fails the second supplementary examination(s) in the Junior or Intermediate Clerkship shall be allowed to proceed to the next year of study and do supplementary rotation(s) after semester 10.

f. A student who has any supplementary rotation(s) for the Junior Clerkship, Intermediate Clerkship or Senior Clerkship shall be required to meet all the costs of the Clinical/Community Medicine rotation and the Supplementary examination himself/herself.

g. The decision of the outcome of supplementary rotations will be based on the results of the Theory and Clinical Examinations. Results of Course work and Regular examination will not be considered.

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 submission of a satisfactory elective research project, completing rotations and passing university examinations for semester 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. No student will be allowed to graduate if he/she has not completed all fieldwork assignments and submitted relevant reports. A student shall be awarded the MD degree after passing all prescribed courses in the MD programme.

xx. Grading System

Computation of the GPA for the MD programme shall be based on the number of credits approved for each course and shall be equated to the

letter grade as shown below. **However, the MD degree shall not be classified:**

Marks %	Letter grade	Grade points
75-100	A	5.0
70-74	B+	4.0
60-69	B	3.0
50-59	C	2.0
45-49	D	1.0
0-44	E	0

xxi. Regulation for Fieldworks and Reports

a. The students will do community field work on nutrition at the end of semester 4 as a group. There will also be community field works in Community Medicine during semester 7/8 and 9/10 as part of training in Public Health. This will be divided into dispensary, health center and DMO weeks as well as district health management training. Students will be required to produce both individual reports for the dispensary, health center and DMO weeks.

b. There shall be an elective study for every student at the end of semester 8 as part of Community Medicine rotation. Each student will be assigned to a supervisor, will be required to choose a topic of his/her interest but approved by the supervisor and the department of Community Medicine, carry out research on the topic by his/herself guided by the supervisor throughout all stages of research conduct proposal development, acquisition of ethical approval, data collection, data analysis, report writing and dissemination of findings.

c. The elective report will be marked and marks will contribute grade of the Community Medicine rotation. No student will be allowed to

graduate if he/she has not completed all field works and including providing reports.

xxii. Calculation of Grade Point Average (GPA)

This is obtained by dividing the sum of the product of grade point (GP) and credit (C) for each course by the sum of the credits (C) from each of the courses offered during the audit year. For example:

Course	Credit (C)	Score	Grade	Grade point (GP)	GP x C
Anatomy AN 100	13.8	60	B	3	41.4
Biochemistry BC 100	10.7	70	B+	4	42.8
Physiology PH 100	9.2	55	C	2	18.4
Behavioral Sciences BS 100	10.4	72	B+	4	41.6
DS 100	4.6	75	A	5	23
Total	**48.7**				**167.2**

GPA = ∑(GPxC) ÷∑C = 167.2÷48.7 = 3.43 which is truncated to 3.4

(Note: There is no rounding-off when truncating).

19.29 Additional Examination Regulations For Nursing Programme

The management of assessment and its mode of conduct for Nursing Programme at SJUIT shall be those approved by the Ministry of Health and Social Welfare, TNMC/NACTVET.

i. End of Semester Examinations

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

b. A candidate will be eligible for the end of semester examination if she/he has successfully passed continuous assessments for each module.
c. A student who fails to attain 50% of continuous assessment for each core modules shall not be allowed to sit for semester examination. All modules are regarded as core module with the exception of computer applications and entrepreneurship modules
d. A student, who did not sit for the semester examination for any module, shall have to do the examination for that module before progressing towards next semester.
e. A student who attains GPA of 2.0 should be allowed to supplement the failed module once not later than four weeks
f. A student who fails semester examination with GPA less than 2.0 should be discontinued from the programme
g. A student who fails any core module after supplementary in NTA Level 4 shall be discontinued
h. Any score after supplementary shall be counted at 50% regardless the actual score
i. A student who fails the semester examination for any module after repeating shall be suspended and reinstated into the programme at the start of the next semester.
j. A student who fails the theory or practical examination for any module will be allowed to sit for supplementary examination not later than 4 weeks after the first attempt.
k. The student who fails supplementary examination for any module shall be suspended and allowed to repeat the semester.
l. Students will be allowed to progress towards the next semester if she/he has passed all semester examinations for each module.
m. A candidate who falls seriously sick just before or during end of semester examinations or is hospitalized will be allowed to write the examinations when his/her health has stabilized.

n. A candidate who feels unable to attempt end of semester examination for any module for any reason, should present her case in writing four weeks before the date of end of semester examination to the head of an institution for consideration

o. A candidate will be deemed to have passed the end of semester examination if she/he achieves a minimum 50% of the set marks for both theory and practical/oral or the aggregates of continuous assessment and end of semester examination for each core module

ii. Examination Components Contribution

Contribution of every component of the assessment to the final mark shall be as follows:

Summary of contribution of components of assessment to final mark

Module	**Continuous Assessment Tests (%)**	**End of Semester Examination (%)**	**Grand Total (%)**
Theory Modules	40	60	100
Practical Modules	40	60	100

iii. Examination Appeals

The appeal of candidates, who has not satisfied the examiners, should follow the process described in the training regulation of the Ministry of Health and Social Welfare.

19.30 Additional Examination Regulations for Pharmaceutical Sciences Programme

The General Ministry of Health (MoHCDGEC) Examination Regulations for Training Institutions on registration for examinations, board of examiners, preservation of scripts, procedures for appeals, examination offences and penalties, examination fees and

certification and awards shall remain as stipulated in the MoHCDGEC Examination Regulations.

i. Eligibility for Examinations

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

b. 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.

c. 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.

d. A student who fails to complete assignment(s) or research work in the scheduled time shall not be allowed to sit for the end of semester examinations.

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

ii. 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.

iii. Guidance for Invigilators

a. **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.

b. **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.

c. **At the end of examination:**

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

ii. Candidates shall hand in 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.

iv. Absence from Examinations

a. 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.

b. 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

v. Falling Sick Immediately Before or During Examination

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. 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.

vi. Reporting Late for Examinations

a. 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).

b. 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.

vii. Students Progression and Disposal

a. 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.

b. 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.

viii. Supplementary Examination

a. 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 2.0.

b. 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.

ix. Repeating the Semester

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

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

c. 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.

x. Discontinuation

a. A candidate who fails to meet a minimum of 90% attendance in a particular semester without acceptable grounds shall be discontinued from studies.
b. When a candidate misses examination(s) without valid reason(s) shall be discontinued from the studies.
c. A candidate who obtains a semester GPA of less than 2.0 shall be discontinued from studies.
d. A candidate who does not appear for supplementary examination(s) without compelling reason(s) approved by participatory organs shall be discontinued from studies.
e. A candidate found guilty of an examination irregularity shall be discontinued from studies.
f. 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.

xi. Examination Irregularities or Academic Dishonesty

Examination irregularities shall include but not limited to:

a. A candidate found with unauthorized materials/information at any time during the examination process. Such unauthorized materials will include written pieces of papers, mobile/cellular phones or any other unauthorized materials.
b. A candidate attempting to copy from another candidate's work or permitting another candidate to do so.
c. A candidate communicating with another candidate by giving or obtaining unauthorized assistance or attempting to do so.
d. A candidate removing question papers, scripts or any other examination materials found in the examination room.
e. A candidate starting to attempt examination before being authorized to do so.

f. A candidate continuing to attempt the examination after being ordered to stop.
g. A candidate refusing to obey a lawful order given by an invigilator.
h. A candidate destroying or attempting to destroy evidence of suspected irregularities.
i. A candidate found to have committed plagiarism.
j. A candidate behaving in such a manner as to disrupt the examination process
k. An invigilator violating examinations regulations.

xii. Procedure for Dealing with Examination Irregularities

In case of alleged examinations irregularity:

a. The candidate shall be stopped by the invigilator from continuing with the examination and be required to sign an examination irregularity report (Appendix 2 of the Ministry of Health Curriculum) and the materials pertinent to the incidence to confirm that they are his/hers. However, the candidate shall be allowed to sit for the remaining examinations.
b. The invigilator shall counter sign and submit to the head of department the examination irregularity report together with the candidate's examination script and all pertinent materials immediately after the end of examination for further transmission through appropriate participatory organs for action as stipulated in the examination offences and penalties of the MoHCDGEC Examination Regulations.

xiii. Instruction to Students

a. Candidates shall be admitted into examination room twenty minutes before the examination starts.

b. No candidate shall be permitted to enter the examination room 30 minutes after commencement of the examination.

xiv. Candidates without examination numbers and identity cards shall not be allowed into the examination room.

c. Candidates are responsible for consulting examinations time table for any changes.
d. Candidates are not allowed to enter examination room with books, bags, purses, notes, rough papers, mobile phones, or other such items.
e. When candidates are allowed to bring specified items in the examination room, no borrowing from one another will be allowed during examination time, and the items allowed will be liable to inspection by the invigilator.
f. Candidates shall follow the examination instructions.
g. Candidates shall write only their examination numbers on every page used.
h. Candidates shall not write their names anywhere in the script.
i. No candidate shall be allowed to leave the examination room during the last thirty minutes.
j. At all times during the examination the candidate's examination number/identity card shall be conspicuously placed on the desk in front of the student by the student.
k. Smoking, beverages and food shall not be allowed into the examination room. Any special needs for eating, drinking or medication shall be reported to the invigilator before start of the examination.
l. At the end of examination, and on the instruction of the invigilator, candidates shall be required to stop writing, and organize their work. The candidate shall personally hand in his/her scripts to the invigilator and sign to that effect.

m. Candidates are allowed to bring pens, pencils and other materials explicitly prescribed by the department into the examination room.

n. For a candidate wishing to answer a call of nature may, with permission of invigilator and under escort, leave the examination room for a period of time not exceeding five (5) minutes. Only one candidate at a time will be allowed to leave the examination room and will be monitored at all times.

o. A candidate who walks out of the examination in protest shall be disqualified from that particular examination.

p. Candidates must understand that the ultimate responsibility for taking supplementary examination(s) at the correct time rests on him/her.

q. Invigilator(s) shall have the power to:

i. Specify and change the sitting arrangement in the examination room

ii. Inspect candidates to make sure they are not in possession of unauthorized materials. Inspection of candidates shall observe gender issues.

iii. Confiscate any unauthorized material and to remove from the examination room any candidate found with such material.

iv. Remove from the examination room any candidate who disrupts the examination process

xv. Release and Publication of Examination Results

The head of department may publish the examinations results provisionally subject to approval by the Tanganyika Medical and Training Board (TMTB) as recommended by the participatory organs.

xvi. Examination Components Contribution

Due to the nature of pharmacy training, this programme is constituted by theory modules and practical modules. For each

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

Summary of contribution of components of assessment to final mark

Module	Continuous Assessment Tests (%)	End of Semester Examination (%)	Grand Total (%)
Theory Modules	40	60	100
Practical Modules	40	60	100

xvii. Examination Appeals

The appeals of candidates, who have not satisfied the examiners, should follow the process described in the training regulation of the Ministry of Health and Social Welfare.

19.31 Amendments

Amendments on examinations regulations shall be done from time to time as deemed necessary by the Academic Committee of the Senate.

19.32 Examination Regulations Amendments of 2021

The Senate held on October 12, 2021 authorized the following Examination Regulations Amendments of 2021.

S. No	Categories	Current Examination Regulations of 2018	Examination Regulations Amendments of 2021
1.	**Assignments**	Only Two assignments	Students should be given a minimum of five (5) assignments,

			at least one for each unit for a total of 20 marks.
1.	**Examination Irregularities**	Clause no: 11 Examination Irregularities and Procedures sub clause: 11.10 A candidate who shall be found guilty of committing examination irregularities shall be discontinued from studies.	1. 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 a examination irregularity and shall be discontinued forthwith from studies in the University. 2. The Senate may impose a lesser penalty **(Refer Annexure – I)** 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
3.	**Re-evaluation of the answer script**	Clause no:18 Procedure of Examination related Appeals sub clause: 18.8 Candidates not satisfied with the marking, may apply for re-evaluation on payment of non-refundable TZS 50,000. (Only applicable to Theory Modules with Descriptive Exams)	Candidates not satisfied with the marking, may apply for re-evaluation on payment of non-refundable TZS 25,000. (Only applicable to Theory Modules with Descriptive Exams)
4.	**Question Paper Setting**	**Clause no: 24** Processing of Tests and Examinations **sub clause: 24.1** The course lecturer must	1. The course lecturer must prepare and submit two sets of question papers by the fifth week

		prepare and submit two sets of question papers along with marking scheme for End Semester Examination for each course by the eight week of the Semester.	of the Semester. **(Only Questions without Answer key).** 2. Use old QP from the Question Bank Software. 3. Answer key with marking scheme should be submitted only after the completion of the scheduled examination.
5.	**Marking of Answer scripts**	Clause no: 24 Processing of Tests and Examinations sub clause: 24.9 Lecturer who taught only will mark the answer scripts/with assistance from others who are knowledgeable in specific subject.	All answer scripts shall be marked by recommended markers from the pool of teaching staff from the department/college who are professionals/lectures knowledgeable in the specific subject or field appointed by Deputy Vice Chancellor (Academic, Research & Public Engagement) in consultation with Principal and Head of Department.

Annexure - I

Examination Offences and Penalties

SL. NO	OFFENCE	PENALTY
1.	a) making unauthorized verbal communication with and/or gesturing to another candidate;	
	b) being in possession of any unauthorized materials;	
	c) exchanging documents or Answer Books and/or Answer Sheets;	
	d) assisting another candidate in writing his/her examination;	

	e) providing answers to another candidate;	• Nullification of a candidate's examination results (Cancellation of all the modules in particular Semester) and • The student should carry forward all the cancelled modules and sit as a supplementary module ('C' Grade) when next offered.
	f) copying from another candidate;	
	g) borrowing materials from another candidate(s) in the course of examination; materials including but not limited to, calculators, rulers, pens/pencils, and slide rules;	
	h) Obtaining admission to the examination on a false representation made by a Candidate in his examination registration.	
	i) Deliberately disclose his identity or making distinctive marks in his answer booklet for that purpose.	
2.	a) removing Question Paper, Answer Books and/or Answer Sheets from an examination room/hall or premises;	Discontinuation from Studies
	b) involved in unauthorized removal of an examination Answer Book(s) and/or Answer Sheet(s), any part of an examination Answer Book(s) and/or Answer Sheet(s) or blank examination stationery from the examination room/hall or premises except by a person with designated authority to do so	Discontinuation from Studies
	c) tearing whole or any part of the Answer Books and/or Answer Sheets;	Discontinuation from Studies
	d) impersonating another candidate;	Discontinuation from Studies
	e) destruction or falsification of any evidence of irregularity;	Discontinuation from Studies
	f) Swallowing or attempting to swallow a note or paper or running away with it or cause disappearance or destroy any such material.	Discontinuation from Studies
	g) Possession of answer to a question set in the examination paper in connivance with any member of a supervisory or any other staff or some outside agency.	Discontinuation from Studies

	h) Candidate or student making arrangements to obtain illegal help in connection with the question paper.	Discontinuation from Studies
	i) "Smuggling" in an answer booklet or a continuation sheet or taking out or arranging to send out an answer booklet or continuation sheet, during or after the examination with or without the help or connivance of any person connected with the examination center or of any agency within or outside examination center.	Discontinuation from Studies
	j) Writing outside the examination hall, an answer book or a continuation sheet for a candidate, which the latter smuggle into the examination hall or to replace the answer book of the candidate after the examination.	Discontinuation from Studies
	k) Misconduct or misbehaving towards the invigilator or any member of the supervisory staff in a verbal or non-verbal means.	Discontinuation from Studies
	l) Using abusive language either verbal or nonverbal and/or physical assault or batter to invigilator, member of the supervisory staff and other candidate in the examination setting.	Discontinuation from Studies
	m) Using abusive or obscene language in the answer booklet.	Discontinuation from Studies
	n) Forging another person's signature on a Candidates examination registration form or using a forged document knowing it to be forged and with a view to seeking Examination Hall ticket.	Discontinuation from Studies
	o) Leaving the examination room without delivering the answer booklet to the invigilator concerned and taking away the same with him or intentionally tearing off or otherwise disposing off his answer booklet or any part thereof or the continuation sheet or part thereof inside or outside the examination room.	Discontinuation from Studies
3.	a) causing disturbance in or near an examination room/hall or premises;	

	b) involved in fraudulent alteration or misrepresentation of data and/or other information; c) being in possession of and using any unauthorized materials; d) Writing on any other piece of paper, a question set in the paper or anything connected with or relating to a question set in the paper or solution thereof. e) Passing on or receiving on during the examination, a copy of a question set in the paper or the question paper itself or a part thereof or a solution of a question set in the question paper, to anyone.	• Nullification of a candidate's examination results of particular semester and • Disqualification from appearing in University examination for a period of One year (2 subsequent Semester Exams).
4.	Communicating directly or through a relative, guardian or friend with an examiner or any member of SJUIT with the objective of influencing him in the award or marks.	• Nullification of examination results of all modules of the particular semester for the candidate • If a person is a marker, examiner, invigilator or a member of SJUIT shall be reported to the respective authority.
5.	Failure to submit procedures book/Record book two weeks before end of semester examination.	• Sit for the particular module examination when next offered and considered as First Sitting.
6.	Unauthorized absence from examination.	• Sit for the particular module examination when next offered and • Shall be considered as first sitting if the cases are found genuine else it would be considered as Supplementary Sitting ('C" Grade)
7.	Forged signature of the staff in the procedures/record/Observation book.	• Nullification of all Practical Modules in particular semester.

8.	Submission of incomplete continuous assessment(s).	• Sit for the examination when next offered after completing the continuous assessment(s) and; • Shall be considered as first sitting.
For cases of unfair means not covered by these Regulations, the Senate may impose punishment according to the nature of the offence.		

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 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						
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	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 690 hrs)						69

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	
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	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 Name	Hour Distribution	TOTAL	Credits

Module Code		Core/ Elective	L	S/T	AS	IS	P		
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							
		Core/ elective	L	S/T	AS	IS	P	TOTAL	Credits
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	Credit
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

Year 1 Semester I

COURSE CODE	COURSE NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IS	P	HRS	
ED6111	Basic Communication Skills	3	1	1	1		6	9
ED6112	Basic Engineering Mathematics	3	1	3	1		8	12
ED6113	Engineering Physics	3	1	1	1		6	12
CS6111	Basic Concepts Of Computers	2	1	1		2	6	8
ME6114	Workshop Practice	2	-	2		4	8	12
CE6115	Construction Materials	3	1	-	-	-	4	6
CE6116	Construction Machines	3	-	1	-	-	4	6
	Total Credits							65

Year 1 Semester II

SUBJECT CODE	SUBJECT NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IS	P	HRS	
ED6121	Engineering Entrepreneurship	2	1	1	1	2	7	12
CS6126	Computer Applications	2	1	1	-	1	5	9
ME6122	Technical Drawing	1	1			4	6	12
CE6123	Basic Engineering Surveying	2	1			2	5	9
CE6124	Basic Building Construction	3				2	5	8
	Total Credits:							50

Year 2 Semester I

Module Code	Module Name	Scheme of Study Hours / week					TOTAL	Credits
		L	T	AS	IS	P	HRS	

ED6211	Technical Communication Skills	2	1	1	-	2	6	9
ED6212	Engineering Mathematics	4	1	2	1	-	8	12
ED6213	Applied Chemistry	3	1	1	1	2	8	12
CE6214	Basic Soil Mechanics	2	1	1	-	-	4	6
CE6215	Topographic Surveying	2	1	2		1	6	8
CE6216	Engineering Mechanics	2	1	2	1	1	7	10
	TOTAL CREDITS							55

Year 2 Semester II

Module Code	Module Name	Scheme of Study Hours / week					TOTAL/ HRS	Credits
		L	T	AS	IS	P		
CE6221	Theory of Structures	3	1	1	1	1	10	10
CE6222	Road and Bridge Construction	2	-	2	1	3	12	12
CE6223	Railway Construction and Maintenance	2	-	1	1	1	8	8
CE6224	Water Supply Engineering	2	-	2	1	2	10	10
CE6225	Principles of Environmental Engineering	2	-	2	1	1	9	9
	TOTAL CREDITS							49

Year 3 Semester I

Module Code	Module Name	Scheme of Study (hours / week)					TOTAL	Credits
		L	T	AS	IS	P	HRS	
ED6311	Supervisory Skills	2	1	2	-	-	5	8
ED6312	Development Studies	2	1	2	-	-	5	8
ED6313	Action Research	3	1	-	-	-	4	6
CE6314	Hydraulics	3	2		-	3	8	12
CE6315	Reinforced Concrete Design	2	1		1	4	8	12
CE6316	Steel and Timber Structural Design	2	1		1	3	7	12
CE6317	Project I	-	-		-	-	-	9
CE6318	Industrial Practical Training					20	20	20
	Total Credits							87

Year 3 Semester II

Module Code	Module Name		Scheme of Study (hours / week)				TOTAL	Credits
		L	T	AS	IS	P	HRS	
ED6321	Principles of Management	2	1	1	-	-	4	6
CE6322	Quantity Surveying and Cost Estimation	4	1	1	1	-	7	10
CE6323	Innovative ConstructionTechnologies	4	1	2	1	-	8	12
CE6324	Construction Management	4	1	2	-	-	7	10
	Elective I							8
	Elective II							8
CE6328	Project II	-	-	-		-	-	9
	Sub-Total Credits							63

TABLE 10.3: Elective Modules (*Student will choose two module*)

Module Code	Module Name		Scheme of Study (hours / week)				TOTAL	Credits
		L	T	AS	IS	P	HRS	
CE6325	Water Resources and Irrigation Management	3	1	1	-	-	5	8
CE6326	Urban Planning and Development	3	1	1	-	-	5	8
CE6327	Elements of Interior Design	3	1	1	-	-	5	8

KEY: L... Lecture; T.... Tutorial; P..... Practical; IS...Independent Study, AS..... Assignment

21.2.4 Department of Mechanical, Mechatronics and Industrial 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

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
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**

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

Year 1 Semester I

Course Code	Course Name	Core or Elective	Scheme of Study Hours / Week					Total Hrs	CREDITS
			L	T	AS	IS	P		
ED6111	Basic Communication Skills	Core	3	1	1	1		90	9
ED6112	Basic Engineering Mathematics	Core	4	1	2	1		120	12
ED6113	Physics	Core	3	1	1	1		90	9
CS6111	Basic Concepts of Computers	Core	3	1	1			75	8
CS6112	Computer Applications	Core	3	1	1	1		90	9
ME6111	Workshop Practice	Core	2			2	4	120	12
EE6111	Fundamentals of Electric Networks	Core	3	1	1		3	120	12
	Total Credits								71

KEY: L..... Lecture; T: Tutorial; P; Practical; AS: Assignment, IS: Independent Studies

Year I Semester II

Course Code	Course Name	Core or Elective	Scheme of Study Hours / Week					Total Hrs	Credits
			L	T	AS	IS	P		
ED6122	Engineering Entrepreneurship	Core	3	1	1			75	8
ME6122	Technical Drawing	Core	1	1	2	2	2	120	12
ME6121	Basic Engineering Mechanics	Core	3	1	2	2		120	12
ME6123	Introduction to Materials Technology	Core	3	1	2	2		120	12
	Total Credits:								44

KEY:- L: Lecture; T: Tutorial; AS: Assignment; IS: Independent Studies; P: Practicals.

Year II Semester I

Subject Code	Subject Name	Core or Elective	Scheme of Study Hours / Week					Total Hrs	Credits
			L	T	AS	IS	P		
ED6211	Communication Skills	Core	3	1	1	1		90	9
ED6212	Engineering Mathematics	Core	4	1	2	1		120	12
ED6213	Applied Chemistry	Core	3	1	1	1	2	120	12

ME6211	Mechanics of Materials	Core	3	1	2	2		120	12
ME6212	Machine Drawing	Core	1		2	2	3	120	12
ME6213	Engineering Mechanics	Core	3	1	2	2		120	12
	Total Credits:								69

Year II Semester II

Subject Code	Subject Name	Core or Elective	Scheme of Study Hours / Week					Total	Credits
			L	T	AS	IS	P	Hrs	
ME6221	Introduction to Welding and Foundry Technologies	Core	3		1	2	2	120	12
ME6222	Introduction to Manufacturing Processes	Core	3	1	2	2		120	12
ME6223	Fluid Mechanics & Fluid Power	Core	2	1	1	2	2	120	12
ME6224	Applied Thermodynamics	Core	3	1	2	2		120	12
ME6225	Metal Cutting Processes	Core	3	2	2	1		120	12
	Total Credits:								60

Year III Semester I

Subject Code	Subject Name	Core or Elective	Scheme of Study Hours /Week					Total	Credits
			L	T	AS	IS	P	Hrs	
ME6311	Industrial Practical Training	Core				200		200	20
ME6312	Design of Machine Elements	Core	3	1	2	2		120	12
ME6313	Thermal Engineering	Core	3	1	2	2		120	12
ME6314	Computer-Aided Drafting	Core	1	1	1	2	3	120	12
ED6312	Development studies	Core	2	1	1	1		75	8
ME6315	Project Proposal	Core	0	0	0	4	2	90	9
ME6316	Industrial Engineering Management	Core	2	1	1	2	0	90	9
	Total Credits:								62

Year III Semester II

Subject Code	Subject Name	Core or Elective		Scheme of Study Hours / Week	Total	Credits

					A S	**I S**		**H r s**	
ME6321	CAD / CAM	Core	1	1	1	1	3	105	10
ED6311	Supervisory Skills	Core	2	1	1	1		75	8
ME6322	Control Systems	Core	2	1	1	2		90	9
ME6323	Safety and Maintenance	Core	2	1	1	2		90	9
ME6324	Manufacturing Technology	Core	2	1	1	2		90	9
ME6325	Workshop Technology	Core	1	1	2	3		105	10
ME6326	Project	Core				4	3	105	10
	Total Credits:								65

Ordinary Diploma in Mechatronics Engineering

TABLE 8.1: Year 1 Semester I

Module Code	Module Name	SCHEME OF STUDY HOURS / WEEK					Credits
		L	T	AS	IS	P	
ED6111	Basic Communication Skills	3	1	1	1	-	9
ED6112	Basic Engineering Mathematics	3	1	3	1	-	12
ED6113	Engineering Physics	3	1	1	1	2	12
CS6111	Basic Concepts of Computers	3	1	1	-	-	8
CS6112	Computer Applications	3	1	1	-	1	9
MT6111	Fundamentals of Mechatronics	2	-	1	1	2	9
MT6112	Workshop Practice	2	-	2		4	12
	Sub-Total Credits						71

Year I Semester II

Module Code	Module Name	Description of Hours					Credits
		L	T	AS	IS	P	
ED6122	Engineering Entrepreneurship	3	1	1	-	-	8
MT6121	Basic Engineering Materials Technology	3	1	1	1		9
MT6122	Fabrication Laboratory Techniques	1	-	-		3	6
ME6122	Technical Drawing	1	1	2	2	2	12
MT6123	Principles of Electrical Machines	1	-	1	1	2	8
MT6124	Fundamentals of Engineering Mechanics	2	1	1	1	-	8
MT6125	Electronic Circuits Fabrication	2	-	-		2	6
EE6122	Electrical Measurements and Instrumentation	2	1	1	-	2	9
	Sub-Total Credits						66

Year II Semester I

Module Code	Module Name	Scheme of Work Hrs/Wk					Credits
		L	T	AS	IS	P	

ED6211	Technical Communication Skills	3	1	1	1		9
ED6212	Engineering Mathematics	4	1	2	1	-	12
ED6213	Applied Chemistry	3	1	1	1	2	12
ME6211	Mechanics of Materials	3	-	1	2	-	9
MT6211	Basic Communication System	2	1	1	1	3	12
ME6212	Machine Drawing	1		1	2	3	10
	Sub-total						**64**

Year II Semester II

Module Code	Module Name	Hours Distribution					Credits
		L	T	AS	IS	P	
MT6221	Fluid Mechanics & Fluid Power	2	1	1	1	2	10
MT6222	Communication System Engineering	2	1	1	1	3	12
MT6223	Mechatronics Embedded Systems	3	1	1		3	12
MT6224	Industrial Electronics	2	1	1		2	9
MT6225	Electrical & Electronics Engineering	2	1	1	1	1	9
MT6226	Project						10
Sub-total							62

Year III Semester I

Module Name	Module Name	Scheme of Study Hours / Week					CREDITS
		L	T	AS	IS	P	
ED6311	Principles of Management	2	1	1	-	-	6
ED6312	Development Studies	2	1	2	-	-	8
ED6313	Supervisory Skills	2	1	2	-	-	8
MT6312	Machine Elements Design	2	1	1	1	2	10
CS6317	Computer Programming	3		1		2	9
ME6314	Computer-Aided Drafting	1	1	1	1	3	10
MT6313	Engineering Product Design	2	1	1	1	1	9
MT6227	Industrial Practical Training						20
Sub-Total Credits							80

Year III Semester II

Module Code	Module Name	Hour Distribution					Credits
		L	T	AS	IS	P	
MT6321	Computer Aided Design (CAD)	2	1	1	1	3	12

Module Code	Module Name	Hour Distribution					Credits
		L	T	AS	IS	P	
MT6322	Computer Aided Manufacturing	2	1	1	1	3	12
MT6323	Digital Signal Processing	2	1	1	-	2	9
MT6324	Very Large-Scale Integration (VLSI) circuits	2	1	1	-	2	9
MT6325	Machine Tool Testing	2	3	-	-	1	9
MT6326	Machine Elements Design	2	1	1	1	2	10
MT6327	Project Work						10
Sub-Total Credits							71
GRAND TOTAL							414

Ordinary Diploma in Industrial Engineering

Year 1 Semester II

Subject Code	Subject Name	Description of Hours					Credits
		L	T	AS	IS	P	
IE 6121	Industrial Workshop Practice	1				3	6
IE 6122	Fundamentals of Industrial Engineering	2		1	1		6
IE 6123	Basic Industrial Design	1		1		2	6
IE 6124	Technical Drawing	1		1		4	9
IE6125	Fundamentals of Electrical Engineering	2		1		1	6
IE 6126	Computer-Aided Drafting	1		1		2	6
IE 6127	Welding Workshop Practice	1		1		2	6
IE 6128	Measurement and Instrumentations	2	1	1		2	9
	Sub Total						56
	Year Total						116

KEY: L.Lecture; T..Tutorial; P..Practical; IS: Independent studies AS..Assignment

Year 2 Semester I

Module Code	Module Name	Hour Distribution					Credits
		L	T	AS	IS	P	
ED6211	Communication Skills	2	1	1		2	9
ED 6212	Engineering Mathematics	4	2	1	1		12
ED 6213	Applied Chemistry	3	1	1	1	2	12
IE 6214	Mechanics of Materials	2	1	1		2	9

IE 6215	Industrial Production Standards	2		1		3	9
IE 6216	Welding and Foundry Workshop Practice	2		1		5	12
		Sub-total					63

Year 2 Semester II

Module Code	Module Name	Hour Distribution					Credits
		L	T	AS	IS	P	
ET 6221	Fundamentals of Operation Research	3	1	1	1		9
IE 6222	Industrial Design Engineering	2	1	1		4	12
IE 6223	Product Cost Analysis and Estimation	2	1	1		2	9
IE 6224	Electrical & Electronics Engineering Lab	2	1	1		2	9
IE 6225	Industrial Ergonomics	2	0			4	9
IE 6226	Fundamentals of Metrology	2	0	1		3	9
	Sub-Total						57
	Year Total						120

KEY: L.Lecture; T..Tutorial; P..Practical; IS: Independent studies AS..Assignment

Year III Semester I

Module Code	Module Name	Hour Distribution					Credits
		L	T	AS	IS	P	
IPTR	Industrial Practical Training					20	20
ED 6311	Principles of Management	2	1	1			6
ED 6312	Development Studies	2	1	2		-	8
ED 6313	Supervisory Skills	2	1	2		-	8
ED 6314	Action Research	1	1	1		4	11
IE 6315	Design of Machine Elements	2	1	2		3	12
IE 6316	Project Proposal	2	0	0		4	9
SUB-TOTAL							74

KEY: L.Lecture; T..Tutorial; P..Practical; IS: Independent studies AS..Assignment

Year III Semester II

Module Code	Module Name	Hour Distribution					Credits
		L	T	AS	IS	P	
IE 6321	Facility Layout and Materials Handling	3	1	1	1		9
IE 6322	CAD/CAM	2	1		1	4	12
IE 6323	Metal Cutting Processes	2	0	1		3	9

IE 6324	Computer Aided Manufacturing	2	1		1	4	12
IE 6325	Diploma Project	2	0	0		4	9
	Sub Total						51
	Year Total						125

KEY: L.Lecture; T..Tutorial; P..Practical; IS: Independent studies AS..Assignment

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 [illegible]	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	
(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						
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	
(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 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	**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	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	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 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	
TOTAL CREDITS (Total Contact Hours = 35 hrs/week * 15 week = 525 hrs , Total Hours = 525 hrs + (13 hrs/week x 15 week) = 720 hrs)						60

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

Year 1 Semester I

MODULE CODE	MODULE NAME	SCHEME OF STUDY Hrs / wk.					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		
ED6111	Basic Communication Skills	4	1	1			6	9
ED6112	Basic Engineering Mathematics	4	1	2	1		8	12
ED6113	Physics	3		1		2	6	9
CS6111	Basic Concepts of Computers	3	1	1			5	8
CS6112	Computer Applications	3	1	1		1	6	9
ME6111	Workshop Practice	2		2		4	8	12
EE6111	Fundamentals of Electric Networks	3	1	1		3	8	12
EE6112.	Principles of Electric Machines	2	1	1		2	6	9
TOTAL CREDITS								80

Year 1 Semester II

MODULE CODE	MODULE NAME	SCHEME OF STUDY HRS / WK					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		
ED6122	Engineering Entrepreneurship	3	1	1			5	8
ME6122	Technical Drawing	1	1	2	2	2	8	12
EC6121	Electronic Devices and Circuits	4	2	1	1	2	10	15
EE6121	Installation and Maintenance of Electrical and Electronic Equipment	4	2	2			8	12
EE6122	Electrical Measurement and Instrumentation	2	1	1		2	6	9
	TOTAL CREDITS							56

Module Code	Module Name		Description in Hours				Total Hrs	credits
		L	T	AS	IS	P		
ED6211	Technical Communication Skills	3	1	1	1		6	9
ED6212	Engineering Mathematics	4	1	2	1		8	12

ED6213	Applied Chemistry	3	1	2			8	12
CS6214	Computer Programming	3	1	1	1	2	8	12
EE6211	Principles of DC Machines	3	1	1	1	2	8	12
EE6212	Electrical Power and Utilization	4	1	1			6	9
EE6213	Power Plants	4	1	1			6	9
EE6214	Analogue and Digital Electronics			2		4	6	9
	Total Credits							84

Year 2 Semester II

Module Code	Module Name	Description in Hours/wk					Total Hrs	Credits
		L	T	AS	IS	P		
EE6221	Principles of AC Electrical Machines	2		2		4	8	12
EE6222	Power Transmission and Distribution	4		1		1	6	9
EE6223	Electric Drives	4	1	1			6	9
EE6224	Electrical Machines Rewinding	4	1	1			6	9
EE6225	Digital Systems	4		1		1	6	9
EE6226	Power System Protection	4	1	1			6	9
	Total Credits							57

Year 3 Semester I

COURSE CODE	COURSE NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IP	P	HRS	
ED6311	Principles of Management	2	1	1			4	6
ED6312	Development Studies	2	1	1	1		5	8
ED6313	Supervisory Skills	2	1	1	1		5	8
CS6315	Object oriented Programming with C++	3	1	1	1	2	8	12
CS6316	Computer Hardware and Networking	3	1	1	1	2	8	12
EE6311	Industrial Automation Systems	2		2		4	8	12
EE6314	Project Proposal	2			4		6	9

EE6315	Power Electronics	4		1		1	6	9
EE6316	Industrial Practical Training							20
	Total Credits							96

Year 3 Semester II

SUBJECT CODE	SUBJECT NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IP	P	HRS	
EE6321	Fundamentals of Power System Operation and Control	4	2	1	1		8	12
EE6322	Computer Aided Electrical Drawing	4		1	1		6	9
EE6323	Fundamentals of Power System Design and Installation	4	1	1			6	9
	Elective						6	9
EE6326	Diploma Project	2			4		6	9
	Total Credits:							48

Table 8.3 Elective Modules

		SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IP	P	HRS	
EE63204	Renewable Energy Technologies	3	1	1	1		6	9
EE63205	Electrical Maintenance and Repair	2	1			3	6	9

Ordinary Diploma in Electronics and Communication Engineering

Year 1 Semester I

MODULE CODE	MODULE NAME	SCHEME OF STUDY Hrs / wk					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		
ED6111	Basic Communication Skills	3	1	1	1		6	9
ED6112	Basic Engineering Mathematics	4	1	2	1		8	12

ED6113	Physics	3	1	1	1	2	8	12
CS6111	Basic Concepts of Computers	3	1	1			5	8
CS6112	Computer Applications	3	1	1		1	6	9
EC6114	Electronic Workshop Practice	2		2		4	8	12
TOTAL CREDITS								59

Year 1 Semester II

MODULE CODE	MODULE NAME	SCHEME OF STUDY HRS / WK					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		
EC6121	Electronic Devices and Circuits	4	2	1	1	2	10	15
EC6122	Electric Circuits and Instrumentation	4	2	1	1	2	10	15
EC6123	Basic Analogue and Digital Electronics	4	2	1	1	3	11	17
ED6122	Engineering Entrepreneurship	3	1	1			5	8
TOTAL CREDITS								55

Year 2 Semester I

Module Code	Module Name		Description in Hours/Wk				Total Hrs	credits
		L	T	AS	IS	P		
ED6211	Technical Communication Skills	3	1	1	1		6	9
ED6212	Engineering Mathematics	4	1	2	1		8	12
ED 6213	Applied Chemistry	3	1	1	1	2	8	12
CS6214	Computer Programming	3	1	1	1	2	8	12
ME6211	Technical Drawing	3	1	1	1	2	8	12
	Total Credits							57

Year 2 Semester II

Module Code	Module Name	Description in Hours/wk					Total Hrs	Credits
		L	T	AS	IS	P		
EC6221	Microprocessor and Microcontroller Systems	3	2	1	1	3	10	15

EC6222	Industrial Electronics	3	2	1	1	3	10	15
EC6223	Basic Principles of Communication Systems	3	3	1	1	2	10	15
CS6222	Basics of Data Communication Networks	2	1	1	1	1	6	9
CS6223	Computer Hardware and Networking	3	1	1	1	2	8	12
	Total Credits							66

Year III Semester I

COURSE CODE	COURSE NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IS	P	HRS	
ED6311	Principles of Management	2	1	1			4	6
ED6312	Development Studies	2	1	1	1		5	8
ED6313	Supervisory Skills	2	1	1	1		5	8
CS6315	Object Oriented Programming with C++	3	1	1	1	2	8	12
EC6311	Communication Systems	4	2	1	1	2	10	15
EC6312	Project Proposal	2	0	0		4	6	9
CS6316	Computer Hardware and Networking	3	1	1	1	2	8	12
EC6314	Industrial Practical Training (done at the end of semester IV)					20	20	20
	Total Credits							90

Year III Semester II

SUBJECT CODE	SUBJECT NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IS	P	HRS	
IT6327	Wireless Data Communication Networks	3	1	1	1	2	8	12
EC6322	Embedded Systems	4	2	1	1	2	10	15
EC6323	Diploma Project	2	0	0		4	6	9
Select I or II	(I) Elective Module	4	2	2	1	3	12	18
	(II) Elective Module	4	2	1	1	2	10	15
	Total Credits:							69

Table 8.3 Elective Modules

		SCHEME OF	TOTAL	CREDITS

		STUDY HOURS / WEEK						
		L	T	AS	IS	P	HRS	
EC6324	Digital Signal Processing	4	2	2	1	3	12	18
EC6325	Bio – Medical Instrumentation	4	2	1	1	2	10	15
EC6326	Very Large Scale Integration VLSI) circuits	4	2	2	1	3	12	18
EC6327	Television Engineering	4	2	1	1	2	10	15

KEY: L : Lecture; **T** :Tutorial; **P** : Practical; **AS**: Assignment; IS: Independent studies.

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	Fundamentals 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 Programming	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 of Networks	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 Oriented Programming laboratory	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	Industrial Practical 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	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

Year 1 Semester I

MODULE CODE	MODULE NAME	SCHEME OF STUDY Hrs / wk					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		
ED6111	Basic Communication Skills	4	1	1			6	9
ED6112	Basic Engineering Mathematics	4	1	2	1		8	12
ED6113	Engineering Physics	3		1		2	6	12
CS6111	Basic Concepts of Computers	3	1	1			5	8
CS6112	Basic Programming	3	1	1		1	6	9
CS6113	Workshop Technology	2		2		4	8	10
TOTAL CREDITS								60

Year 1 Semester II

MODULE CODE	MODULE NAME	SCHEME OF STUDY HRS / WK					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		
EC6120	Basic Electrical and Electronics Engineering	2	1	1	1	1	6	9
CS6121	Computer Applications	4	2	1	1	2	10	9
CS6122	Computer Systems Maintenance and Repair	4	2	1	1	3	11	9
ED6122	Engineering Entrepreneurship	3	1	1			5	8
CS6123	Data structure and Algorithms	3	1	1	1	1	7	9
CS6124	Principles Of Computer Engineering	2	1	1	1	1	6	9
TOTAL CREDITS								53

Year 2 Semester I

Module Code	Module Name		Description in Hours/Wk				Total Hrs	credits
		L	T	AS	IS	P		

ED6211	Technical Communication Skills	2	2	1	1	2	8	12
ED6212	Engineering Mathematics	4	1	2	1		8	12
ED6213	Applied Chemistry	4	2	1	1		8	12
CS6211	Operating Systems	3	1	1	1	2	8	12
CS6212	Object Oriented Programming with Java	2	1	1	1	1	6	9
CS6213	Visual Basic Programming	2	1	1		2	6	9
	Total Credits							65

Year 2 Semester II

Module Code	Module Name	Description in Hours/wk					Total Hrs	Credits
		L	T	AS	IS	P		
CS6221	Computer Networks	2	1	1	1	1	6	9
CS6223	Server Administration	2	1	1	1	1	6	9
CS6224	Internet Concepts and Web Designing	2	1	1	1	1	6	9
CS6225	Computer Architecture & Assembly Language Programming	2	1	1	1	1	6	9
EC6221	Microprocessor and Microcontroller Systems	3	1	1	1	2	8	12
CS6222	Basics of Data Communication Networks	2	1	1	1	1	6	9
	Total Credits							57

Year 3 Semester I

COURSE CODE	COURSE NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IP	P	HRS	
ED6311	Principles of Management	2	1	1			6	9
ED6312	Development Studies	2	1	1	1		5	8
CS6311	Relational Database Management System	2	1	1	1		5	8
CS6312	Multimedia Systems in ICT	2	1	1	1	2	7	11
CS6313	TCP/IP Networking	2	1	1	1	2	7	11
EC6326	Fundamentals of VLSI	2	1	1	1	2	7	11

CS6314	Industrial Practical Training						200	20
	Total Credits							78

Year 3 Semester II

SUBJECT CODE	SUBJECT NAME		SCHEME OF STUDY HOURS / WEEK				TOTAL	CREDITS
		L	T	AS	IP	P	HRS	
CS6321	Computer Networking and Security	3	1	1	1	2	8	12
ED6313	Supervisory Skills	3	1	1	1	2	8	12
CS6321	Software Design and Development	2	0	0		4	6	9
EC6221	Embedded Systems	3	1	1		1	6	9
CS6323	Mobile Computing and Internet of Things	3	1	1	1	2	8	12
CS6324	Project	0	0	0		6	6	9
	Total Credits:							63

Ordinary Diploma in Information Technology

Year 1 Semester I

MODULE CODE	MODULE NAME	SCHEME OF STUDY Hrs / wk					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		
ED6111	Basic Communication Skills	4	1	1			6	9
ED6112	Engineering Mathematics	4	1	2	1		8	12
ED6113	Physics	3		1		2	6	9
CS6111	Basic Concepts of Computers	3	1	1			5	8
IT6112	Computer Applications	3	1	1		1	6	9
EC6115	Basic Electrical and Electronics Engineering	2	1	1		1	5	8
CS6112	Basic Programming	4	1	1	1	2	9	13
TOTAL CREDITS								68

Year 1 Semester II

MODULE CODE	MODULE NAME	SCHEME OF STUDY HRS / WK					TOTAL HRS/WK	CREDITS
		L	T	AS	IS	P		

ED6122	Engineering Entrepreneurship	3	1	1			5	8
IT6121	Principles of Information Technology	4	1	2	1	1	9	13
CS6123	Data Structures and Algorithms	3	1	1		3	8	12
IT6122	Computer Operation and Maintenance	4	1	1		3	9	12
TOTAL CREDITS								55

Year 2 Semester I

Module Code	Module Name		Description in Hours/Wk				Total Hrs	credits
		L	T	AS	IS	P		
ED6211	Communication Skills	2	1	1	1	1	6	9
ED6212	Engineering Mathematics	4	1	2	1		8	12
ED6213	Chemistry	4	2	1	1		8	12
IT6211	Computer Programming with C / C++	4	1	1	1	2	9	14
EC6221	Microprocessors and Microcontroller Systems	3	1	1	1	2	8	12
IT6212	Local Area Networks (LANs) Concepts	2	1	1	1	2	7	11
IT6213	Database Systems	2	1	1		2	6	9
		Total Credits						**79**

Year 2 Semester II

Module Code	Module Name	Description in Hours/wk					Total Hrs	Credits
		L	T	AS	IS	P		
IT6221	Software Engineering Fundamentals	3	1	1	1	1	7	11
IT6222	Object Oriented Programming with Java	3	1	1		2	7	11
CS6224	Internet Concepts and Web Designing	2	1	1		2	6	9
CS6222	Basics of Data Communication Networks	3	1	1		2	7	11
IT6223	Internet and LAN Technologies	2	1	1		2	6	9
IT6224	Advanced C++ Programming Skills	2	1	1		2	6	9

		Total Credits		60

Year III Semester I

COURSE CODE	COURSE NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IP	P	HRS	
ED6311	Principles of Management	2	1	1			4	6
ED6312	Development Studies	2	1	1	1		5	8
IT6312	Programming with Java and HTML	2	1	1		2	6	9
IT6313	Emerging Technologies and Support System	2	1	1	1		5	8
IT6315	Multimedia Systems in ICT (Generation, storage and transmission/distribution)	2	1	1		2	6	9
IT6316	Project I	1	0	0		5	6	9
IT6317	Industrial Practical Training					20		20
	Total Credits							69

Year III Semester II

SUBJECT CODE	SUBJECT NAME	SCHEME OF STUDY HOURS / WEEK					TOTAL	CREDITS
		L	T	AS	IP	P	HRS	
ED6313	Supervisory Skills	2	1	1	1		5	8
IT6321	Software Design and Development Methodologies	2	1	1	1	1	6	9
IT6322	.NET Programming Framework	2	1	1	1	1	6	9
IT6323	Management Information Systems	2	1	1	1	1	6	9
IT6324	Wireless Data Networks	2	1	1	1	1	6	9
IT6325	Security Strategies in Data Networks	2	1	1		1	5	9
IT6326	Project II	1				6	7	10
	Total Credits:							63

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.

(a) Existing 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
	II	701 ED 101 Sociology of Education	8
		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.) programme

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 CH82 Chemical Thermodynamics	*9*
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	*9*

		Chemistry	
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

(b) New semester mapping of Common Core Courses for B.Sc. (Education) programme - Re-Accredited Curriculum (Effective from 2022-23 Academic Year)

Normal learning Matrix & Course Matrices

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

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

Table 1. Learning Matrix: BSc with Education – **YEAR 1 (SEMESTER I &II)**

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
COMMON	*COMMON*	*701 CC 01*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
EDUCATION	*EDUCATION*	*701 ED 51*	*Core*	*30*	*-*	*15*	*15*	*30*	*90*	*9*
		702 ED 52	*Core*	*60*	*-*	*10*	*10*	*-*	*80*	*8*
MAJOR 1 (MATHEMATICS)	*BSc.ED.WITH (MATHEMATICS & CHEMISTRY)*	*350 MA 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		350MA 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
MAJOR 2 (CHEMISTRY)		*353 CH 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		354 CH 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
MAJOR 1 (MATHEMATICS)	*BSc.ED.WITH (MATHEMATICS &*	*350 MA 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		350 MA 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*

MAJOR 2 (COMPUTER SCIENCE)	*COMPUTER SCIENCE)*	*351 CS 51*	*Core*	*30*	*-*	*15*	*15*	*30*	*90*	*9*
		351 CS 52	*Core*	*30*	*-*	*15*	*15*	*30*	*90*	*9*
MAJOR 1 (PHYSICS)	*BSc.ED.WITH (PHYSICS & MATHEMATICS)*	*352 PH 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		352 PH 52	*Core*	*-*	*-*	*-*	*30*	*60*	*90*	*9*
MAJOR 2 (MATHEMATICS)		*350 MA 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		350MA 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
MAJOR 1 (PHYSICS)	*BSc.ED.WITH (PHYSICS &COMPUTER SCIENCE)*	*352 PH 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		352 PH 52	*Core*	*-*	*-*	*-*	*30*	*60*	*90*	*9*
MAJOR 2 (COMPUTER SCIENCE)		*351 CS 51*	*Core*	*30*	*-*	*15*	*15*	*30*	*90*	*9*
		351 CS 52	*Core*	*30*	*-*	*15*	*15*	*30*	*90*	*9*
MAJOR 1 (PHYSICS)	*BSc.ED.WITH (PHYSICS & CHEMISTRY)*	*352PH 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		352PH 52	*Core*	*-*	*-*	*-*	*30*	*60*	*90*	*9*
MAJOR 2 (CHEMISTRY)		*353 CH 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		353 CH 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
MAJOR 1 (BIOLOGY)	*BSc.ED.WITH (BIOLOGY & CHEMISTRY)*	*354 BI 51*	*Core*	*30*	*-*	*5*	*10*	*45*	*90*	*9*
		354 BI 52	*Core*	*30*	*-*	*5*	*10*	*45*	*90*	*9*
MAJOR 2 (CHEMISTRY)		*353 CH 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		353 CH 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*

PAPER		**Course Code**	**Core or elective**	**Lecture Hrs**	**Tutorial /Seminar**	**Assignment Hrs**	**Independent**	**Practical Hrs**	**Total Hrs**	**Credits**
MAJOR 1 (MATHEMATICS)	*BSc.ED.WITH (MATHEMATICS & GEOGRAPHY)*	*350MA 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		350 MA 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
MAJOR 2 (GEOGRAPHY)		*355 GE 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
		355 GE 52	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*
MAJOR 1 (CHEMISTRY)	*BSc.ED.WITH (CHEMISTRY &*	*353CH 51*	*Core*	*60*	*-*	*15*	*15*	*-*	*90*	*9*

	GEOGRAPHY)	353CH 52	Core	-	-	-	30	60	90	9
MAJOR 2 (GEOGRAPHY)		355 GE 51	Core	60	-	15	15	-	90	9
		355 GE 52	Core	60	-	15	15	-	90	9
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY & GEOGRAPHY)	354 BI 51	Core	30	-	5	10	45	90	9
		354 BI 52	Core	30	-	5	10	45	90	9
MAJOR 2 (GEOGRAPHY)		355 GE 51	Core	60	-	15	15	-	90	9
		355 GE 52	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
COMMON	COMMON	701 CC 02	Core	30	-	15	15	30	90	9
EDUCATION	EDUCATION	701 ED 61	Core	30	-	15	15	30	90	9
		702 ED 62	Core	45	15	10	10	-	80	8
		701 TP 01	Teaching Practice I							9
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS & CHEMISTRY)	350 MA 61	Core	60	-	15	15	-	90	9
		350 MA 62	Core	60	-	15	15	-	90	9
MAJOR 2 (CHEMISTRY)		353 CH 61	Core	-	-	15	15	60	90	9
		353 CH 62	Core	60	-	15	15	-	90	9
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS & COMPUTER SCIENCE)	350 MA 61	Core	60	-	15	15	-	90	9
		350 MA 62	Core	60	-	15	15	-	90	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 61	Core	60	-	15	15		90	9
		351 CS 62	Core	30	-	15	15	30	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS & MATHEMATICS)	352PH 61	Core	60	-	15	15	-	90	9
		352PH 62	Core	-	-	-	30	60	90	9
MAJOR 2 (MATHEMATICS)		350 MA 61	Core	60	-	15	15	-	90	9
		350 MA 62	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS & COMPUTER SCIENCE)	352PH 61	Core	60	-	15	15	-	90	9
		352PH 62	Core	-	-	-	30	60	90	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 61	Core	60	-	15	15		90	9
		351 CS 62	Core	30	-	15	15	30	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS & CHEMISTRY)	352PH 61	Core	60	-	15	15	-	90	9
		352PH 62	Core	-	-	-	30	60	90	9
MAJOR 2 (CHEMISTRY)		353 CH 61	Core	-	-	15	15	60	90	9
		353 CH 62	Core	60	-	15	15	-	90	9
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY & CHEMISTRY)	354 BI 61	Core	60	-	15	15		90	9
		354 BI 62	Core	30	-	5	10	45	90	9
MAJOR 2 (CHEMISTRY)		353 CH 61	Core	-	-	15	15	60	90	9
		353 CH 62	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS & GEOGRAPHY)	350MA 61	Core	60	-	15	15	-	90	
		350 MA 62	Core	60	-	15	15	-	90	
MAJOR 2 (GEOGRAPHY)		355 GE 61	Core	60	-	15	15	-	90	
		355 GE 62	Core	60	-	15	15	-	90	
MAJOR 1 (CHEMISTRY)	BSc.ED.WITH (CHEMISTRY & GEOGRAPHY)	353CH 61	Core	60	-	15	15	-	90	
		353CH 62	Core	-	-	-	30	60	90	
MAJOR 2 (GEOGRAPHY)		355 GE 61	Core	60	-	15	15	-	90	

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
		355 GE 62	Core	60	-	15	15	-	90	
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY & GEOGRAPHY)	354 BI 61	Core	30	-	5	10	45	90	
		354 BI 62	Core	30	-	5	10	45	90	
MAJOR 2 (GEOGRAPHY)		355 GE 61	Core	60	-	15	15	-	90	
		355 GE 62	Core	60	-	15	15	-	90	

Learning Matrix: BSc with Education – YEAR 2 (SEMESTER - I &II)

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
EDUCATION	EDUCATION	701 ED 71	Core	60	-	10	10	-	80	8
		701 ED 72	Core	60		10	10	-	80	8
		701 ED--	Elective	60	-	10	10	-	80	8
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS & CHEMISTRY)	350 MA 71	Core	60	-	15	15	-	90	9
		350 MA 72	Core	60	-	15	15	-	90	9
MAJOR 2 (CHEMISTRY)		353 CH 71	Core	60	-	15	15	-	90	9
		353 CH 72	`	-	-	15	15	60	90	9
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &COMPUTER SCIENCE)	350 MA 71	Core	60	-	15	15	-	90	9
		350 MA 72	Core	60	-	15	15	-	90	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 71	Core	30	-	15	15	30	90	9
		351 CS 72	Core	30	-	15	15	30	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS & MATHEMATICS)	352PH 71	Core	60	-	15	15	-	90	9
		352PH 72	Core	-	-	-	30	60	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 2 (MATHEMATICS)		350 MA 71	Core	60	-	15	15	-	90	9
		350 MA 72	Core	60	-	15	15	-	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &COMPUTER SCIENCE)	352PH 71	Core	60	-	15	15	-	90	9
		352PH 72	Core	-	-	-	30	60	90	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 71	Core	30	-	15	15	30	90	9
		351 CS 72	Core	30	-	15	15	30	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &CHEMISTRY)	352PH 71	Core	60	-	15	15	-	90	9
		352PH 72	Core	-	-	-	30	60	90	9
MAJOR 2 (CHEMISTRY)		353 CH 71	Core	60	-	15	15	-	90	9
		353 CH 72	、	-	-	15	15	60	90	9
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY &CHEMISTRY)	354 BI 71	Core	45	-	5	10	60	120	12
		354 BI 72	Core	30	-	5	10	45	90	9
MAJOR 2 (CHEMISTRY)		353 CH 71	Core	60	-	15	15	-	90	9
		353 CH 72	、	-	-	15	15	60	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &GEOGRAPHY)	350MA 71	Core	60	-	15	15	-	90	9
		350 MA 72	Core	60	-	15	15	-	90	9
MAJOR 2 (GEOGRAPHY)		355 GE 71	Core	60	-	15	15	-	90	9
		355 GE 72	Core	60	-	15	15	-	90	9
	BSc.ED.WITH	353CH 71	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (CHEMISTRY)	(CHEMISTRY &GEOGRAPHY)	353CH 72	Core	-	-	-	30	60	90	9
MAJOR 2 (GEOGRAPHY)		355 GE 71	Core	60	-	15	15	-	90	9
		355 GE 72	Core	60	-	15	15	-	90	9
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY &GEOGRAPHY)	354 BI 71	Core	30	-	5	10	45	90	9
		354 BI 72	Core	30	-	5	10	45	90	9
MAJOR 2 (GEOGRAPHY)		355 GE 71	Core	60	-	15	15	-	90	9
		355 GE 72	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
EDUCATION	EDUCATION	701 ED 81	Core	45	10	15	10		80	8
		701 ED 82	Core	60	-	10	10	-	80	8
		701 TP 02	Teaching practice-ii							9
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &CHEMISTRY)	350 MA 81	Core	60	-	15	15	-	90	9
		350 MA 82	Core	60	-	15	15	-	90	9
		350 MA --	Elective	60	-	15	15	-	90	9
MAJOR 2 (CHEMISTRY)		353 CH 81	Core	60	-	15	15	-	90	9
		353 CH 82	Core	60	-	15	15	-	90	9
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &COMPUTER SCIENCE)	350 MA 81	Core	60	-	15	15	-	90	9
		350 MA 82	Core	60	-	15	15	-	90	9
		350 MA --	Elective	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 2 (COMPUTER SCIENCE)		351 CS 81	Core	30	-	15	15	30	90	9
		351 CS 82	Core	30	-	15	15	30	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &MATHEMATICS)	352PH 81	Core	60	-	15	15	-	90	9
		352PH 82	Core	-	-	-	30	60	90	9
		352 PH --	Elective	60	-	15	15	-	90	9
MAJOR 2 (MATHEMATICS)		350 MA 81	Core	60	-	15	15	-	90	9
		350 MA 82	Core	60	-	15	15	-	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &COMPUTER SCIENCE)	352PH 81	Core	60	-	15	15	-	90	9
		352PH 82	Core	-	-	-	30	60	90	9
		352 PH --	Elective	60	-	15	15	-	90	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 81	Core	30	-	15	15	30	90	9
		351 CS 82	Core	30	-	15	15	30	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &CHEMISTRY)	352PH 81	Core	60	-	15	15	-	90	9
		352PH 82	Core	-	-	-	30	60	90	9
		352 PH --	Elective	60	-	15	15	-	90	9
MAJOR 2 (CHEMISTRY)		353 CH 81	Core	60	-	15	15	-	90	9
		353 CH 82	Core	60	-	15	15	-	90	9
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY &CHEMISTRY)	354 BI 81	Core	45	-	5	10	60	120	12
		354 BI 82	Core	30	-	5	10	45	90	9
		354 BI --	Elective	30	-	5	10	45	90	9
MAJOR 2 (CHEMISTRY)		353 CH 81	Core	60	-	15	15	-	90	9
		353 CH 82	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &GEOGRAPHY)	350MA 81	Core	60	-	15	15	-	90	
		350 MA 82	Core	60	-	15	15	-	90	
		350 MA	Elective	60	-	15	15	-	90	
MAJOR 2 (GEOGRAPHY)		355 GE 81	Core	60	-	15	15	-	90	
		355 GE 82	Core	60	-	15	15	-	90	
MAJOR 1 (CHEMISTRY)	BSc.ED.WITH (CHEMISTRY &GEOGRAPHY)	353CH 81	Core	60	-	15	15	-	90	
		353CH 82	Core	-	-	-	30	60	90	
MAJOR 2 (GEOGRAPHY)		355 GE 81	Core	60	-	15	15	-	90	
		355 GE 82	Core	60	-	15	15	-	90	
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY &GEOGRAPHY)	354 BI 81	Core	30	-	5	10	45	90	
		354 BI 82	Core	30	-	5	10	45	90	
		354 BI	Elective	60	-	15	15	-	90	
MAJOR 2 (GEOGRAPHY)		355 GE 81	Core	60	-	15	15	-	90	
		355 GE 82	Core	60	-	15	15	-	90	

Table 1. Learning Matrix: BSc with Education – YEAR 3(SEMESTER - I &II)

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Indepen dent study Hrs	Practical Hrs	Total Hrs	Credits
COMMON	COMMON	701 CC 03	Core	45	-	15	20	-	80	8
EDUCATION	EDUCATION	701 ED 91	Core	60	-	10	10	-	80	8
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &CHEMISTRY)	350 MA 91	Core	60	-	15	15	-	90	9
		350 MA 92	Core	60	-	15	15		90	9
MAJOR 2 (CHEMISTRY)		353 CH 91	Core	-	-	15	15	60	90	9
		353 CH 92	Core	60	-	15	15	-	90	9
		353 CH --	Elective	45	-	15	20	-	80	8
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &COMPUTER SCIENCE)	350 MA 91	Core	60	-	15	15	-	90	9
		350 MA 92	Core	60	-	15	15		90	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 91	Core	30	-	15	15	30	90	9
		351 CS 92	Core	60	-	15	15	-	90	9
		351 CS --	Elective	30	-	15	15	-	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &MATHEMATICS)	352PH 91	Core	60	-	15	15	-	90	9
		352PH 92	Core	60	-	15	15	-	90	9
MAJOR 2 (MATHEMATICS)		350 MA 91	Core	60	-	15	15	-	90	9
		350 MA 92	Core	60	-	15	15		90	9
		350 MA --	Elective	60	-	15	15	-	90	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &COMPUTER SCIENCE)	352PH 91	Core	60	-	15	15	-	90	9
		352PH 92	Core	60	-	15	15	-	90	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 91	Core	30	-	15	15	30	90	9
		351 CS 92	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Indepen dent study Hrs	Practical Hrs	Total Hrs	Credits
		351 CS --	*Elective*	*3*	-	*15*	*15*	-		
MAJOR 1 (PHYSICS)	*BSc.ED.WITH (PHYSICS &CHEMISTRY)*	*352PH 91*	*Core*	*6*	-	*15*	*15*	-		
		352PH 92	*Core*	*6*	-	*15*	*15*	-		
MAJOR 2 (CHEMISTRY)		*353 CH 91*	*Core*	-	-	*15*	*15*	*60*		
		353 CH 92	*Core*	*6*	-	*15*	*15*	-		
		353 CH --	*Elective*	*45*	-	*15*	*20*	-		
MAJOR 1 (BIOLOGY)	*BSc.ED.WITH (BIOLOGY &CHEMISTRY)*	*354 BI 91*	*Core*	*3*	-	*5*	*10*	*45*		
		354 BI 92	*Core*	*3*	-	*5*	*10*	*45*		
MAJOR 2 (CHEMISTRY)		*353 CH 91*	*Core*	-	-	*15*	*15*	*60*		
		353 CH 92	*Core*	*6*	-	*15*	*15*	-		
		353 CH --	*Elective*	*45*	-	*15*	*20*	-		

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (MATHEMATICS)	*BSc.ED.WITH (MATHEMATICS & GEOGRAPHY)*	*350MA 91*	*Core*	*60*	-	*15*	*15*	-	*90*	
		350 MA 92	*Core*	*60*	-	*15*	*15*	-	*90*	
MAJOR 2 (GEOGRAPHY)		*355 GE 91*	*Core*	*60*	-	*15*	*15*	-	*90*	
		355 GE 92	*Core*	*60*	-	*15*	*15*	-	*90*	
MAJOR 1 (CHEMISTRY)	*BSc.ED.WITH*	*353CH 91*	*Core*	*60*	-	*15*	*15*	-	*90*	

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
	(CHEMISTRY & GEOGRAPHY)	353CH 92	Core	-	-	-	30	60	90	
		353 CH-	Elective	45	-	15	20	-	80	
MAJOR 2 (GEOGRAPHY)		355 GE 91	Core	60	-	15	15	-	90	
		355 GE 92	Core	60	-	15	15	-	90	
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY & GEOGRAPHY)	354 BI 91	Core	30	-	5	10	45	90	
		354 BI 92	Core	30	-	5	10	45	90	
MAJOR 2 (GEOGRAPHY)		355 GE 91	Core	60	-	15	15	-	90	
		355 GE 92	Core	60	-	15	15	-	90	

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
COMMON	COMMON	701 PJ 100	Project	-	-	-	90	-	90	9
EDUCATION	EDUCATION	701 ED 101	Core	45	15	10	10	-	80	8

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
		701 ED 102	Core	4 5	1 5	1 0	10	-	8 0	8
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &CHEMISTRY)	350 MA 101	Core	6 0	-	1 5	15	-	9 0	9
		350 MA 102	Core	6 0	-	1 5	15	-	9 0	9
MAJOR 2 (CHEMISTRY)		353 CH 101	Core	6 0	-	1 5	15	-	9 0	9
		353 CH 102	Core	6 0	-	1 5	15	-	9 0	9
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &COMPUTER SCIENCE)	350 MA 101	Core	6 0	-	1 5	15	-	9 0	9
		350 MA 102	Core	6 0	-	1 5	15	-	9 0	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 101	Core	3 0	-	1 5	15	5 0	9 0	9
		351 CS 102	Core	6 0	-	1 5	15		9 0	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &MATHEMATICS)	352PH 101	Core	6 0	-	1 5	15	-	9 0	9
		352PH 102	Core	6 0	-	1 5	15	-	9 0	9
MAJOR 2 (MATHEMATICS)		350 MA 101	Core	6 0	-	1 5	15	-	9 0	9
		350 MA 102	Core	6 0	-	1 5	15	-	9 0	9
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &COMPUTER SCIENCE)	352PH 101	Core	6 0	-	1 5	15	-	9 0	9
		352PH 102	Core	6 0	-	1 5	15	-	9 0	9
MAJOR 2 (COMPUTER SCIENCE)		351 CS 101	Core	3 0	-	1 5	15	5 0	9 0	9
		351 CS 102	Core	6 0	-	1 5	15		9 0	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (PHYSICS)	BSc.ED.WITH (PHYSICS &CHEMISTRY)	352PH 101	Core	60	-	15	15	-	90	9
		352PH 102	Core	60	-	15	15	-	90	9
MAJOR 2 (CHEMISTRY)		353 CH 101	Core	60	-	15	15	-	90	9
		353 CH 102	Core	60	-	15	15	-	90	9
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY &CHEMISTRY)	354 BI 101	Core	60	-	15	15	-	90	9
		354 BI 102	Core	30	-	15	10	45	90	9
MAJOR 2 (CHEMISTRY)		353 CH 101	Core	60	-	15	15	-	90	9
		353 CH 102	Core	60	-	15	15	-	90	9

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 1 (MATHEMATICS)	BSc.ED.WITH (MATHEMATICS &GEOGRAPHY)	350MA 101	Core	60	-	15	15	-	90	
		350 MA 102	Core	60	-	15	15	-	90	
MAJOR 2 (GEOGRAPHY)		355 GE 101	Core	60	-	15	15	-	90	
		355 GE-	Elective	60	-	15	15	-	90	
MAJOR 1 (CHEMISTRY)	BSc.ED.WITH (CHEMISTRY &GEOGRAPHY)	353CH 101	Core	60	-	15	15	-	90	
		353 CH 102	Core	60	-	15	15	-	90	

PAPER		Course Code	Core or elective	Lecture Hrs	Tutorial /Seminar	Assignment Hrs	Independent study Hrs	Practical Hrs	Total Hrs	Credits
MAJOR 2 (GEOGRAPHY)		355 GE 101	Core	60	-	15	15	-	90	
		355 GE-	Elective	60	-	15	15	-	90	
MAJOR 1 (BIOLOGY)	BSc.ED.WITH (BIOLOGY &GEOGRAPHY)	354 BI 101	Core	30	-	5	10	45	90	
		354 BI 102	Core	30	-	5	10	45	90	
MAJOR 2 (GEOGRAPHY)		355 GE 101	Core	60	-	15	15	-	90	
		355 GE -	Elective	60	-	15	15	-	90	

Table 2. TOTAL CREDITS PER COMBINATIONS

COMBINATIONS	COMMON (CREDITS)	EDUCATION (CREDITS)	1st MAJOR (CREDITS)	2nd MAJOR (CREDITS)	TOTAL (CREDITS)
B.Sc.Ed (Phyisics&Chemitry)	35	116	117	116	384
B.Sc.Ed (Phyisics&Mathematics)	35	116	117	117	385
B.Sc.Ed (Phyisics&Comp.Science)	35	116	117	117	385
B.Sc.Ed (Mathematics&Chemistry)	35	116	117	116	384
B.Sc.Ed (Mathematics&Comp.Science)	35	116	117	117	385
B.Sc.Ed (Biology&Chemistry)	35	116	126	116	393

COMBINATIONS	COMMON (CREDITS)	EDUCATION (CREDITS)	1st MAJOR (CREDITS)	2nd MAJOR (CREDITS)	TOTAL (CREDITS)
B.Sc.Ed (Mathematics&Geography)	*35*	*116*	*117*	*117*	*385*
B.Sc.Ed (Chemistry&Geography)	*35*	*116*	*117*	*116*	*384*
B.Sc.Ed (Biology& Geography)	*35*	*116*	*117*	*117*	*385*

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

21.2.1. Introduction

St. Joseph College of Health and Allied Sciences (SJCHAS) is a Constituent 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.

Presently, the College has one School, namely the School of Medicine. The College has a vision of becoming a provider of competitive employable education in health and allied sciences for the development of the nation and be a part of the nation's history. And the mission of the College is to produce highly qualified and competent medical practitioners and medical scientists with ethics and discipline to provide preventive and curative services to meet the health current and emerging needs of the nation, Africa and the global community through world class teaching, research, innovation and dissemination of knowledge.
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.

The College offers several facilities in its various departments used to teach and 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.

21.2.2. The St. Joseph School of Medicine

The School of Medicine which is a unit of the College of Health and Allied Sciences and it operates under the banner of the University. The School has exclusive mission, vision, philosophy stated below, which is shared with the university on a broader perspective.

Vision of the School of Medicine

To be recognized as the best healthcare training institution in East Africa.

Mission of the School of Medicine

Capacity Building of the Nation and its Youth in Medical Sciences; to meet the Emerging Challenges happening in Medical Field, by imparting Quality Medical Education with Professional Ethics and Discipline; which contributes in making Tanzania a country that offers good health care.

Philosophy of the School of Medicine

School's philosophy is to inculcate Moral, Spiritual Professional and ethical values students in to heath and allied sciences and mold their personality, enriched with academic and service skills, which in turn instills the confidence to face global challenges. The School strives to ensure that its programmes deliver the necessary clinical, population health, communication, managerial, entrepreneurial and ICT knowledge, skills and competencies to enable the students develop a broad, integrated approach and become active participants in the health care and social wellbeing of their country. Curricula are carefully designed to provide a unique opportunity to disseminate knowledge that meets a wide range stakeholders' expectations including professional bodies, employers and the society.

The School of Medicine offers the degree of Medicine of Medicine (MD) UQF Level 8. The School has sufficient physical and human resources, including lecture theatres and seminar rooms, state of the art laboratories, and academic and technical staff. ~~The School of Medicine has five departments, namely Department of Biomedical Sciences, Department of Pathology, Department of Medicine, Department of Surgery, and Department of Public Health and Community Medicine.~~ The School of Medicine has several departments, including the Departments of Medical Physiology, Anatomy, Medical Biochemistry, Microbiology, Parasitology, Pathology, Pediatrics and Child Care, Surgery, Clinical Pharmacology, Internal Medicine, Obstetrics and Gynecology, Psychiatry and Mental Health, and Public Health.

The Doctor of Medicine is a five-year, 10-semester programme. The following is the normal learning matrix and course matrixes for the programme.

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 3 Junior 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**

21.2.3. Department of Nursing and Midwifery

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 for Nursing and Midwifery Programme

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		√

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		√

NTA LEVEL 6

MODULE CODE	MODULE NAME	Semester I	Semester II
NMT 06101	Care of a Woman with Abnormal Pregnancy, Labour and 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 Tumors and Cancer		√

NMT 06209	Patients with Surgical Conditions		√
NMT 06210	Patients with Reproductive Surgical Conditions		√
NMT 06211	Mental Health Nursing		√

21.2.4. Department of Pharmaceutical Sciences

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

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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