ST JOSEPH UNIVERSITY IN TANZANIA
DAR ES SALAAM

2016 - 2017

PROSPECTUS

ADDRESSES :

St. Joseph University in Tanzania (SJUIT)

P.O. Box No: 11007, Dar Es Salaam, Tanzania.
Tel No: 0713757010, 0784 757010, 0789142490 & 0713206317.
Email: registrar@sjuit.ac.tzadmission@sjuit.ac.tz
Website: www.sjuit.ac.tz

CAMPUS COLLEGES:

1. **St. Joseph University College of Engineering and Technology**
   P.O. Box No: 11007, Morogoro Road, MbeziLugurni,
   Dar es Salaam, Tanzania.
   Tel No: +255 713 757010, +255 784 757010
   E-mail:principal_sjcet@sjuit.ac.tz;vpacademic_sjcet@sjuit.ac.tz;
   vpadmin_sjcet@sjuit.ac.tz

2. **St. Joseph University College of Management and Commerce**
   P. O. Box. 920, Mbeya Road, Makambako, Njombe Region, Tanzania.
   Tel. No. +255 774262579, 0686312825.
   Email: spo_sjmaf@sjuit.ac.tz; sjcmaf@sjuit.ac.tz;

3. **St. Joseph College of Health Sciences**
   Plot no: 518-541, Bokodovya, Bagamoyo road,
   P.O. Box: 11007, Dar es salaam, Tanzania.
   Tel.No: +255 689312861.
   Email: sjchs@sjuit.ac.tz

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DISCLAIMER:

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CONTENTS

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.

2. DMI in AFRICA:

St. Joseph University in Tanzania (SJUIT) is a full-fledged University recognized by The Tanzania Commission for Universities (TCU) in its order dated 21st December, 2011. The history dates back to the dynamic, amazing and untiring efforts of our Founder Chairman and Chancellor Rev. Fr. Dr. J. E. Arul Raj who founded the Daughters of Mary Immaculate (DMI) and Collaborators in a remote village in India in the year 1984.Inspired by Christian Biblical virtues and devotion he spearheaded the team to accomplish the task of service to the most downtrodden by taking several charity and development activities, doing yeoman service in villages and remote areas."Loving God in serving the poor to be Fully Human and Fully Alive" is the Charism of the Society. Today DMI serves more than 500,000 women, 10,000+ students at College level, 8,000+ students at School level and 35,000+ Children, under its care.

The DMI and its Collaborators came to Tanzania as missionaries in the year 2003, on the invitation of the Cardinal Polycarp Pengo, Arch Diocese of Dar es Salaam. The far sighted vision of the Founder Rev. Fr. Dr. J. E. Arul Raj, the missionary zeal of DMIs, Dr. T. X. A. Ananth, Director for International Operations, assisted by Mr. Ignatius A. Herman, the Director for Education, 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 in other East African countries by establishing the DMI-St. Eugene University in Zambia, DMI-St. John the Baptist University in Malawi and are to launch and ignite knowledge and spread its mission in Ethiopia and South Sudan.

The Group currently has six Institutions in Tanzania, namely:-

1. St. Joseph University College of Engineering and Technology (SJUCET), Dar es Salaam.
2. St. Joseph University College of Management and Commerce (SJUCMC), Makambako.
3. St. Joseph College of Health Sciences (SJCHS), Boko, Dar es Salaam

Apart from promoting the Higher Education in the Country, the Sisters of DMI serve to uplift the livelihood of rural women through Self Help Groups (SHGs), imparting vocational skills, Entrepreneurial skills, Mother and Child Health (MCH)and many other life skill programmes. DMI along with Missionaries of Mary Immaculate (MMI) give new and productive life to the street children through the service of an organization named "Child in the Sun" (CIS).

Today, DMI Group of institutions has become significant in the field of higher education. The parents, sponsors and students are happy and fully satisfied with our quality of education.

2.1 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 the best in the 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

2.2 PRESIDENT'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 equipments 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 curriculum is 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.

With best wishes

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

2.3 VICE CHANCELLOR'S MESSAGE

My hearty welcome to the students of St. Joseph University in Tanzania. The University provides conducive environment for teaching, learning, research and social services. Since 2004, our institutions have been contributing much to this Country

Through quality employable education and social service initiatives. As needs of the 21st Century, work forces grow and change. SJUIT is ever evolving to be a leader in meeting and exceeding these demands. We are offering courses ranging from Engineering, Management, Commerce and Education in Degree, Engineering and Science Education in Diploma and Certificate level. Bachelor of programmes aiming to produce qualified Science teachers required for this Nation. Recently SJUIT has launched MD programme and diploma in Nursing & Midwifery, Certificate in Nursing and Pharmaceutical Sciences at Boko.

Our University is always committed to remain student-focused, innovative, nimble and flexible to meet the needs of our students and community partners. 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 round development for students. We provide them ample opportunities for giving expression on their inner literacy, creative and artistic talents, as well as sportsmanship.

In order to pursue professional or career development to be successful you need to have all types of facilitated learning opportunities ranging from degree to formal course work, industrial practical training, Teaching Practice, Village stay programme, hospital training and informal learning. An integrated approach covering all these vital aspects of learning is provided to the students at St. Joseph University in Tanzania due to the availability of high level of infrastructure facilities and well-experienced and qualified professional teaching cadre.

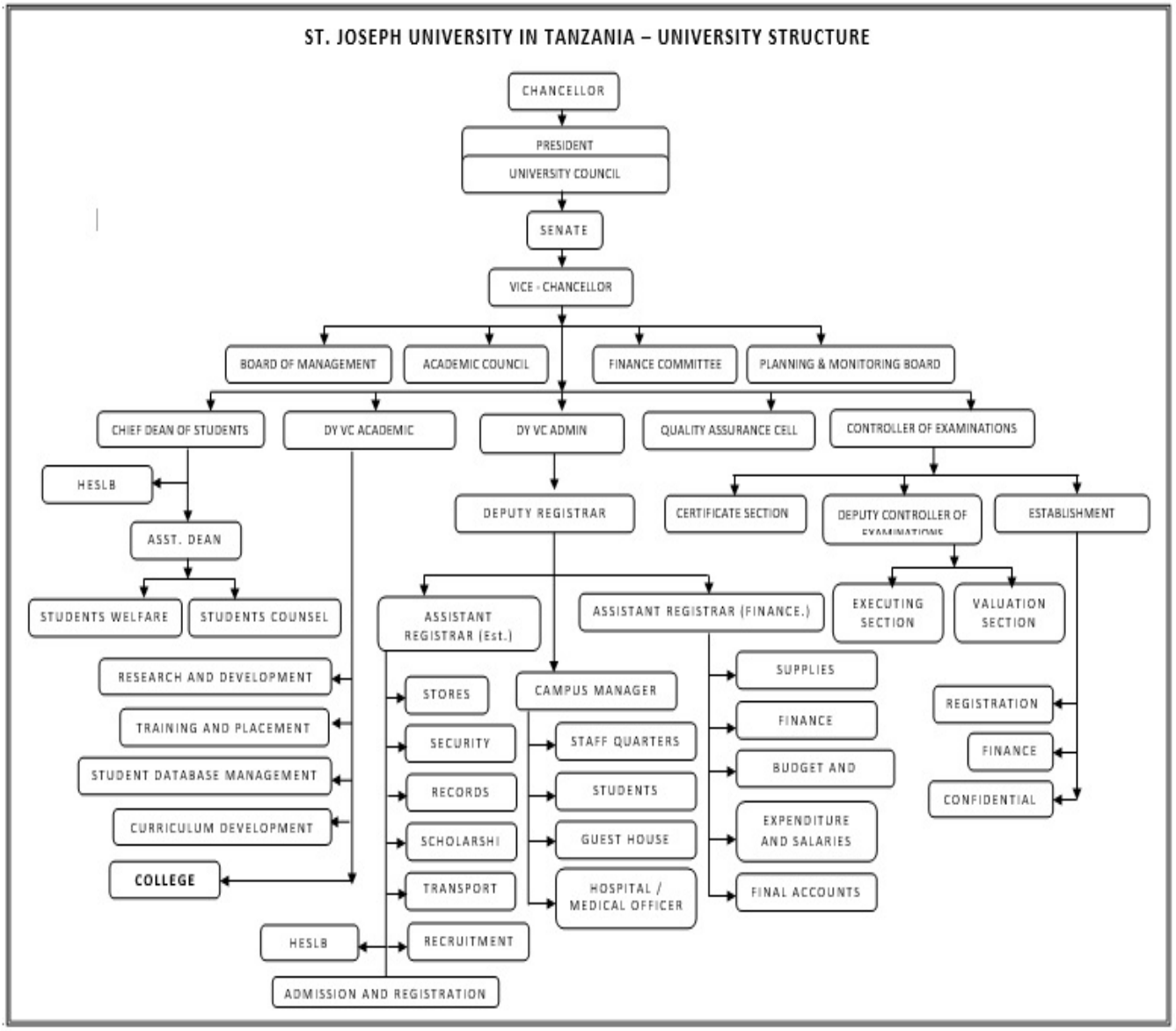
We wish our students to be well educated and well trained and to become responsible citizens. You will be happy to know that the track record of achievements of our alumni is indeed commendable. Hundreds of our past students have proved their mettle in different spheres of industry.

We are sure that in due course you will aspire towards joining the club of these select ones. We are here to help you nurture and realize your dreams. So, let us work together and make your endeavour to build up your blooming career.

I wish you all the best in your future career as the students of this University. Affectionately,

Dr. G. Bhaskara Raju, Vice Chancellor

3. ORGANIZATION CHART



4. KEY STAFF OF THE GROUP:

1. Chancellor
2. Pro Chancellor
3. President of the University Council.
4. Vice Chancellor
5. Senate Members
6. Deputy Vice Chancellor-Academic
   a. Director of Research
7. Deputy Vice Chancellor-Administration and Finance.
   7.1. Registrar
   7.2. Corporate Counsel.
   7.3. Manager – Marketing.
   7.4. Financial Controller.
   7.5. Bursar.
8. Controller of Examinations.
9. Quality Assurance office.
10. Chief Planning Officer.
11. Dean of Students - SJUIT
12. St Joseph University College of Engineering and Technology, Dar es salaam.
    12.1 Principal
    12.2 Vice Principal–Academics – Degree.
    12.3 Vice Principal–Academics – Diploma.
    12.4 Vice Principal–Administration.
13. St. Joseph University College of Management and Commerce (SJUCMC), Makambako.
    13.1 Principal
    13.2 Vice Principal–Academics.
    13.3 Vice Principal–Administration and Accounts.
14. St. Joseph College of Health Sciences (SJCHS), Boko.
    14.1 Principal
    14.2 Vice Principal–Academics.
    14.3 Vice Principal–Administration.

5. PROGRAMMES OFFERED IN SJUIT:

S.No	College	Course Name	Duration
1	St. Joseph University College of Engineering and Technology, Dar es salaam.	Bachelor of Engineering in Civil Engineering	4 Years
		Bachelor of Engineering in Mechanical Engineering	
		Bachelor of Engineering in Electrical & Electronics Engineering	
		Bachelor of Engineering in Electronics & Communication Engineering	
		Bachelor of Engineering in Computer Science Engineering	
		Bachelor of Engineering in Information Systems and Network Engineering	
		Diploma in Civil Engineering	3 Years
		Diploma in Mechanical Engineering	
		Diploma in Electrical & Electronics Engineering	
		Diploma in Electronics & Communication Engineering	
		Diploma in Computer Science Engineering	
		Diploma in Information Technology	
		Bachelor of Science in Education with Physics and Chemistry	
		Bachelor of Science in Education with Physics and Mathematics	
		Bachelor of Science in Education with Physics and Computer Science	
		Bachelor of Science in Education with Mathematics and Chemistry	
		Bachelor of Science in Education with Mathematics and Computer Science	
		Bachelor of Science in Education with Biology and Chemistry	
3	St. Joseph University College of Management and Commerce, Makambako.	Bachelor of Commerce (B.Com)	3 Years
		Bachelor of Business Administration (B.B.A)	
4	St. Joseph College of Health Sciences, Boko, Dare es salaam.	Doctor of Medicine (MD)	5 Years
		Diploma in Nursing and Midwifery Diploma in Pharmaceutical Sciences	3 years
		Basic Certificate in Pharmaceutical Sciences Technician Certificate in Pharmaceutical Sciences Technician Certificate in Nursing	1 year

6. Admission Criteria – 2016/2017 :

6.1. Degree Programmes :

BACHELOR DEGREE PROGRAMMES			
ENGINEERING PROGRAMMES			
	PROGRAMME	**Direct Entry-ACSE**	**Equivalent Entry**
1	Civil Engineering	Advanced Certificate of Secondary Education (with Physics, Chemistry, Mathematics (PCM) or Physics, Geography, Mathematics (PGM) combinations with two passes in any of the following subjects : Mathematics, Physics and Chemistry	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	Mechanical Engineering		Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Mechanical Eng. **(OR)** Automobile Eng. **(OR)** Transport Eng. **(OR)** relevant with minimum GPA of 3.0 along with four relevant passes at O level Certificate.
3	Electrical & Electronics Engineering (SJUCET)		Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Electrical & Electronics Eng. **(OR)** Electronics and Telecommunication Eng. **(OR)** relevant with minimum GPA of 3.0 along with four relevant passes at O level Certificate.
4	Electronics & Communication Engineering (SJUCET)		Holders of Ordinary Diploma (NTA level 6) / Full Technician Certificate in Electrical & Electronics Eng. **(OR)** Electronics and Telecommunication Eng. **(OR)** Computer Science **(OR)** relevant with minimum GPA of 3.0 along with four relevant passes at O level Certificate.
5	Computer Science Engineering		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.
6	Information Systems and Network Engineering		

COMMERCE AND BUSINESS ADMINISTRATION PROGRAMMES			
1	Bachelor of Commerce and Accounts (SJUCMC)	Two passes in the following subjects : Economics, Accountancy and Commerce. A candidate must have at least subsidiary / satisfactory in Mathematics at A level or credit pass in Mathematics at 'O' level.	
2	Bachelor of Business Administration (SJUCMC)	Two passes from the relevant subjects : In case where the passes do not include Mathematics, an applicant must have a subsidiary / satisfactory or a credit pas in Mathematics at O Level.	

EDUCATION PROGRAMMES - SJUCET			
1	Bachelor of Science in Education with Physics and Chemistry	Advanced Certificate of Secondary Education with two passes in Physics & Chemistry.	Ordinary Diploma - NTA level 6 (science related) with a minimum GPA of 3.0 or higher **(OR)** Diploma in Teacher Education (Science) with an average grade of 'B+' **(OR)** equivalent. Besides, four relevant passes at 'O' level certificate.
2	Bachelor of Science in Education with Physics and Mathematics	Advanced Certificate of Secondary Education with two passes in Physics & Mathematics	
3	Bachelor of Science in Education with Physics and Computer Science	Advanced Certificate of Secondary Education with two passes in Physics & Computer Science.	
4	Bachelor of Science in Education with Mathematics and Chemistry	Advanced Certificate of Secondary Education with two passes in Maths and Chemistry	
5	Bachelor of Science in Education with Mathematics and Computer Science	Advanced Certificate of Secondary Education with two passes in Maths & Computer Science	
6	Bachelor of Science in Education with Biology and Chemistry	Advanced Certificate of Secondary Education with two passes in Biology & Chemistry	

Doctor of Medicine Programme			
1	Doctor of Medicine	Principal passes in Biology and Chemistry and a pass in Physics at 'A' Level	Diploma in Clinical Medicine/ with Second class or 'B' average passes. **(OR)** B.Sc. Degree Holder with Lower Second Class majoring in Physics, Chemistry, Biology or Zoology.

6.2 Diploma Programmes:

6.2.1 Diploma in Engineering Programmes:

S.No	Programme	Direct Entry	Equivalent Entry
1	Civil Engineering	Certificate of Sec. Education (Form – 4) / Equivalent with a minimum of four passes including three Ds in Mathematics and/or Science subjects.	Advanced Certificate of Sec. Education with a minimum of one pass in Physics / Chemistry / Mathematics / Geography along with four passes including three Cs at O level
2	Mechanical Engineering		
3	Electrical & Electronics Engineering		
4	Electronics & Communication Engineering		
5	Computer Science Engineering		
6	Information Technology		

6.2.3 Diploma in Nursing and Pharmaceutical Sciences Programmes:

S.No	Programme	Direct Entry-CSEE	Equivalent Entry
1	Diploma in nursing and midwifery	Certificate of Secondary Education (CSEE) with minimum of four passes including D passes at Physics, and C passes in Chemistry and Biology.	
2	Diploma in Pharmaceutical Sciences	Certificate of Secondary Education (CSEE) with minimum of four passes including Credit passes at Chemistry, Biology, Mathematics & English will be an added advantage.	

6.3. Certificate Programme

S.No	Programme	Direct Entry-ACSE	Equivalent Entry
1	Basic Technician Certificate in Pharmaceutical Sciences	A certificate of of CSEE with a minimum of D passes in four (4) subjects including Chemistry & Biology. Mathematics and English is an added advantage	
2	Technician Certificate in Pharmaceutical Sciences	A certificate of of CSEE with a minimum of D passes in four (4) subjects including Chemistry & Biology. Mathematics and English is an added advantage	
3	Technician Certificate in Nursing	A certificate of of CSEE with a minimum of D passes in four (4) subjects including Physics, Chemistry & Biology.	

7. FEE STRUCTURE :

7.1 Tuition Fees:

Programme	Year 1	Year 2	Year 3	Year 4	Year 5	Foreign Nationals
Bachelor of Engineering. /Tech in Civil, Mech., EEE,ECE, CSE, ISNE.	2,750,000	2,750,000	2,750,000	2,750,000		$3000 annually
Non Engineering Degree B.sc/ BBA/B.Com	1,500,000	1,500,000	1,500,000	-		
B.sc in Education (3 Years)	1,820,000	1,820,000	1,820,000	-	-	
Doctor of Medicine (MD)	5,900,000	5,900,000	6,500,000	6,500,000	6,500,000	
Diploma in Civil, Mech., EEE, ECE, CSE ISNE.	1,350,000	1,350,000	1,350,000	-	-	$1500 annually
Diploma in Nursing and Midwifery	1,750,000	1,750,000	1,750,000	-	-	-
Diploma in Pharmaceutical Sciences	1,750,000	1,750,000	1,750,000	-	-	-
Technician Certificate in Nursing	1,750,000	1,750,000	1,750,000	-	-	-
Basic Technician Certificate in Pharmaceutical Sciences	1,750,000	1,750,000	1,750,000	-	-	-
Technician Certificate in Pharmaceutical Sciences	1,750,000	1,750,000	1,750,000	-	-	-
Other Fees:						
Programme	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Foreign Nationals**
Registration Fee	20,000	-	-	-	-	$50
National Health Insurance Fund (NHIF)	50,400	50,400	50,400	50,400	50,400	$50 annually
Caution Deposit (Refundable) Except MD Programme.	100,000	-	-	-	-	$100
Caution Deposit (Refundable) MD Programme.	250,000	-	-	-	-	$250
Identity card	10,000	-	-	-	-	$10 annually
TCU (Quality Assurance Fee)	20,000	20,000	20,000	20,000	20,000	$20 annually

7.2 Examination Fees:

Tsh. 7,500 per Theory / Practical Module (Regular)
Tsh.10,000 per Theory /Practical Module(Supplementary)
Tsh.10,000 for combined module (Theory & Practical)
Project Fee of Tsh.25,000/- only during the Final year.
Tsh.10,000 for Consolidated Mark Statement (Final year only)
Tsh.10,000 for Degree Certificate (Final year only)
Graduation Fees (Final year only) is Tsh.50,000/-

The Examination fee will be absorbed in the Tuition Fee when student unit cost is implemented.

Other Fees to be borne by the students (Not payable to the College).

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Foreign Nationals
Dissertation/ Thesis	Actual…	Actual...	Actual…	Actual…	Actual…	Actual…
Research/Field Fees	Actual…	Actual…	Actual…	Actual…	Actual…	Actual…
Medical Referrals	Actual…	Actual…	Actual…	Actual…	Actual…	Actual…
Transport	Actual…	Actual…	Actual…	Actual…	Actual…	Actual…
General Insurance****	Actual…	Actual…	Actual…	Actual…	Actual…	Actual…
Industrial Training***	Actual…	Actual…	Actual…	Actual…	Actual…	Actual…
Industrial visits	Actual…	Actual…	Actual…	Actual…	Actual…	Actual…

Note: 1. Medical reports as prescribed to be produced at the beginning of every odd semester.
2. All Hospital / Clinical Training expenses are to be borne by the respective student

7.3 Hostel Facility :

At present, the Colleges face a constraint in residential facility. The students are advised to look for their accommodation and food during the period of studies. However, efforts are underway to focus on construction of accommodation facilities. Currently, the facility is limited and is offered at the following rates.

The Accommodation fee Tsh.500,000/- per year per candidate for the MD programme students. No meals are provided, Electricity and Water charges on cost sharing basis are to be borne by the students.

Cafeteria Expenses (Not payable to the College)** (Approximately) Tsh. 700,000 per year

Accommodation fee is for basic accommodation only.

Use of the Electrical/Electronic gadgets like heater, stove, music system, computer etc. attract extra charge.

The Girl Students (Other than SJCHS) are provided with free accommodation and all other costs are to borne by the hostellers.

Note:

***Water/Electricity should be borne by the Hostellers.*

**** Any damages caused would attract compensation and penalty*

*******Medical and General insurance can be arranged for the students, and the amount has to be borne by the student separately.*

7.4 **The Fees can be paid in favour of:**

St. Joseph University College of Engineering & Technology, Dar es Salaam.

Remittance:

a. Local Candidates

A/C Name : DMI - St. Joseph College of Engineering and Technology
A/C Number : 0301066674
Payable at : EXIM Bank, Dar es Salaam

b. Foreign Nationals

A/C Name : DMI - St. Joseph College of Engineering and Technology
A/C Number : 96010100001764
Payable at : Bank of Baroda, Dar es Salaam

St. Joseph University College of Management and Commerce, Makambako.

Remittance:

A/C Name : DMI – St JOSEPH COLLEGE MAC MAKAMBAKO
A/C Number : 20510018699
Payable at : NMB, Makambako

St. Joseph College of Health Sciences.

Remittance:

A/C Name : St. JOSEPH COLLEGE OF HS
A/C Number : 20510018691
Payable at : NMB, Dar es Salaam.

Note:

1. Fees once paid is not refundable under any circumstance.

2. Provisional admission will be given only on payment of registration fee.

8. EVALUATION AND AWARDS

GUIDELINES FOR THE STUDENTS ON CURRICULUM REGULATIONS

8.1 Assessment Pattern

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 and Diploma in Nursing & Midwifery it is 50-50 for both theory and the practical modules.

8.2 Grading System

The performance of every course module is awarded with grade A/B+/B/C/F according to the grading policy of the curriculum at the value of A=5, B+=4, B =3, C=2, D=1 and F=0. The performance of any supplementary module at degree/diploma/certificate level is graded with C flat irrespective of the marks obtained when the candidate clears the module.

8.3 Grade Point Average (GPA)

Every course module is normally assigned with a certain number of credits. The performance of the candidates in every semester is recognized by the Grade Point Average (GPA) put together all the modules into the formula

$$GPA = \frac{\sum(GradeValue * Mod.Credits)}{TotalSem.Credits}$$

8.4 Cumulative Grade Point Average (CGPA)

The overall performance / achievement of candidates after successful completion of a Programme / Course, is recognized by Cumulative Grade Point Average (CGPA) put together all the semester GPAs into the formula

$$CGPA = \frac{\sum(GPA * Sem.Credits)}{TotalCourseCredits}$$

8.5 Award of Degree / Diploma

For the award of any degree / diploma, every student shall attain the minimum number of credits required as specified in the curriculum of the relevant Programme / course of study. The award is classified into the following based on the CGPA attained.

Bachelor Degree (UQF level 8)		
S/N	**CGPA**	**Award of Class**
1	4.4 to 5.0	First Class
2	3.5 to 4.3	Upper Second Class
3	2.7 to 3.4	Lower Second Class
4	2.0 to 2.6	Pass
Diploma (UQF level 6)		
S/N	**CGPA**	**Award of Class**
1	4. 4 to 5.0	First Class
2	3.5 to 4.3	Upper Second Class
3	2.7 to 3.4	Lower Second Class
4	2.0 to 2.6	Pass
Certificate (UQF level 5)		
S/N	**CGPA**	**Award of Class**
1	3.5 to 4.0	First Class
2	3.0 to 3.4	Second Class
3	2.0 to 2.9	Pass

8.6 Medium of Instruction

The medium of instruction for all the Degree, Diploma Programmes and Technician Certificates offered by the University is only in English.

8.7 Examination Irregularities

8.7.1 All cases of alleged examination irregularities, including alleged unauthorized absence from examination, possession of unauthorized material in the examination room, causing disturbances in or near any examination room and any form of or kind of dishonesty, destruction or

falsification of any evidence of irregularity or cheating in examination, shall be reported to the Senate Undergraduate Studies Committee or to a College Academic Board/ Committee, which Committee/Board shall have power to summon the students and members of staff of the University, as it deems necessary and make decisions, subject to confirmation by Senate.

8.7.2 No unauthorized material shall be allowed into the examination room.

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

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

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

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

8.7.7 A candidate must present oneself to the Invigilator(s) and for examination in a manner in which he/she can be identified and matched up with the identity and examination number cards. A candidate failing to present

oneself in a manner that allows his/her identity to be determined shall not be allowed to sit for the scheduled examination and the case shall then be reported to the COE. Such a candidate shall be considered to have attempted and failed the respective examination(s) (hence awarded zero mark).

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

8.7.9 A candidate who carries unauthorized material(s) into examination premises and declares to possess them after question papers have been distributed during the examination, shall be deemed to have possessed unauthorized materials. Such a candidate shall be required to surrender the item(s) to the invigilator and thereafter allowed to proceed with the examination and other subsequent examinations during the period of investigation of the case by the Examination Board.

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

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

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

8.7.13 Candidate who starts to write before the official start of the examination as declared by the Invigilator(s) as well as one who continues to write after the official end of the examination shall be reported to the Examination Officer. Such a candidate shall be served with a letter of warning by the Examinations Officer. A candidate found to have committed a similar offence and who had been served with a letter of warning before shall be discontinued from studies.

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

8.7.15 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.

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

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

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

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

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

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

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

8.7.23 Regulations.

In this regulation:

8.7.23.1 "Unauthorized material" includes any written or printed material that is generally or specifically prohibited from being brought into the examination room, cellular or mobile phones, radios, radio cassette or other types of players, computers, handbags, purses, books, soft drinks (except where water is permitted) and alcoholic drinks and any other material as may be specified from time to

time by the university, the Principal of College, Dean of a School, Director of an academic Institute or Head of an academic department. A candidate found in possession of unauthorized materials shall be required to surrender the material(s) to the invigilator(s) and will be allowed to proceed with the examination and the case reported to the COE;

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

8.7.23.3 "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;

8.7.23.4 "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;

8.7.23.5 "Cheating in examination" includes any form or kind of dishonesty or destruction or falsification of any evidence of irregularity;

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

8.8 Instruction to Candidate

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

8.8.2 All students sitting for examinations shall be in possession of a valid Student ID card, 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 shall not be permitted entry to the examination room.

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

8.8.4 Candidates are advised to be at the examination centre at least fifteen minutes before the commencement of the examinations.

8.8.5 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:

8.8.5.1 Make an announcement to the effect that all unauthorized materials should be removed from the examination room.

8.8.5.2 Make an announcement to the effect that candidates should satisfy themselves that they are in possession of the correct paper.

8.8.5.3 Call attention to any rubric at the head of the paper which seems to require attention.

8.8.5.4 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.

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

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

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

8.8.8.1 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).

8.8.8.2 Raise a hand and wait for an invigilator and leave only when the invigilator has signified his/her assent and accompanies the student.

8.8.9 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. 8.1 to 8.3**). Students should bring only permitted items to the examination; the University assumes no responsibility for personal property lost in or near any examination room.

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

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

8.8.12 A student denied admission to the examination under regulations 20.2 and 20.11 may apply to the College/ School/Institute for a special university examination; such application shall however be subject to scrutiny of the veracity of the claim.

8.8.13 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.

8.9 Revision of Curriculum and Regulations

The University may revise, amend or change the regulations, scheme of examinations and syllabi of the curriculum from time to time for improving the quality, if found necessary.

8.10 Condition on duration of completing a Programme / Course :

For Diploma programme, Engineering and Non-Engineering degree programme the student will complete the award in the prescribed duration of Three years. But, not exceeding additional **TWO YEARS**. **The Maximum period of registration is five years for a programme that takes three years and six years for a four year programme.**

For the Doctor of Medicine degree programme, the student will complete the award in the prescribed Five years duration. But not exceeding additional **TWO YEARS**.

For the Diploma in Nursing & Midwifery programme, the student will complete the award in the prescribed duration of Three years. But, not exceeding additional ONE YEAR.

The candidate who does not qualify himself / herself for the award within the prescribed duration declared as '**ineligible for the award**'.

8.11 Requirements for Completion of a Semester

Only those candidates who fulfil following conditions shall be deemed to have satisfied the requirements for the completion of a semester.

8.11.1 He / She shall secure not less than 85% of overall attendance in a semester, taking into account the total number of periods in all courses put

together attended by the candidate as against the total number of periods in all courses offered during the particular semester.

8.11.2 However, with special permission, a candidate with less than 85% of attendance but 75% and above shall be deemed to have satisfied the conditions of attendance in a semester, on medical / social obligations, subject to the approval of the College Academic Board or Faculty Board.

8.11.3 He / She should earn a progress certificate from the Head of the institution for having satisfactorily fulfilled all the conditions of courses pertaining to a particular semester, as prescribed from time to time.

8.12 **Conditions for appearing Semester Examinations**

A candidate shall be permitted to appear for the semester examination of the current semester, only if he / she has satisfied the requirements for the semester completion and registered his/her name for examination in all the modules of that semester including arrears, if any, including full payment of Tuition Fee.

8.13 **Examinations**

8.13.1 The End Semester Examinations shall ordinarily be conducted at the end of each semester. For Practical Examinations and Project Work, the Controller of Examinations will appoint both the internal and external examiners, and these examinations will be conducted before or after the theory examinations as the case may be.

8.13.2 First Sitting : Student not able to appear for the normal end of semester examination due to serious illness (information to the college / university with valid supporting documents), social obligations (like death of father/mother/biological brother/sister) will be eligible to write the examinations during the supplementary examination(s) (as scheduled by the Controller of Examination) and will be treated as "**the first sitting"** and

with the grades obtained. Not appearing during the supplementary examination(s) will be treated as absent.

8.14 **Absence from Examination**

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

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

8.14.3 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.

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

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

8.14.6 Permission for postponement of end of semester examination(s) shall be granted by the Principal/Dean/Director after consultation with the Head of Department, Dean of Students and, where applicable, the Resident Medical Officer.

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

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

8.15 **Progress from Year to Year**

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

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

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

8.15.4 A candidate who fails in examination(s) which is/are required to make the minimum pass credits for any academic unit after three attempts shall be BARRED from continuing into subsequent academic semester but shall be given the opportunity to retake the course(s) and examination(s) as last attempt when next offered. A candidate who fails to graduate because of failing examination(s) after three attempts will be given the option of retaking the course(s) and examination(s) as last attempt when next offered.

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

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

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

8.16 **Conditions for passing Semester Examinations**

8.16.1 The course modules in which the candidates secured the required minimum marks will be declared as "Passed", else the modules will be declared as "Failed".

8.16.2 The candidates who do not meet the minimum required marks in the continuous assessment test in any module will not be permitted to appear for its end semester examination, and such module is declared as "**INELIGIBLE MODULE**". The candidates who have ineligible module(s) shall redo the assessment process in the next higher semester so as to make the modules eligible.

8.16.3 **Passing in** continuous **assessment is mandatory to be eligible** for the End Semester Examination which is conducted at the end of the semester.

8.16.4 The candidates who do not meet the minimum required marks in the continuous Assessment in any module shall not be permitted to appear for its end semester examination of that particular course, and such course is declared as "**NOT ELIGIBLE**". The candidates who have not eligible module(s) shall redo the Continuous Assessment process (whole examination package ie Theory/Practical/Assignment) in the next higher semester so as to make him/her eligible to sit for the course. The "**NOT ELIGIBLE"** candidates for all the courses should retake the whole course when next offered.

8.17 Procedure for Awarding Marks for Internal / External Assessment (Applicable only for SJUCET & SJUCMC)

8.17.1 Continuous Assessment : A minimum of two Continuous Assessment Tests (CATs) each carrying 50 marks shall be conducted by the respective College/Institution are taken and aggregated for 20 marks.

8.17.2 Practical Courses : Every practical exercise / experiment / spotters shall be evaluated based on the performance in practical sessions and records maintained. There shall be at least one model Examination carrying 60 marks shall be conducted by the respective college/Institution.

8.17.3 Record Work : Every student should possess an observation and record note for his/her practical subject and maintain a record of all the laboratory experiments. No student will be allowed to appear for his/her practical examinations without the record note. The sum of all the marks obtained by a student for all the laboratory experiments is aggregated into a maximum of 20 marks. Similarly, the marks for the model practical examination will be converted into a maximum of 20 marks. The total of these two marks (max. of 40 marks) will be taken as the internal assessment for the practical subject.

8.17.4 Assignments : Minimum of two assignments per module will be given to the students. The students are expected to submit the assignments within the stipulated period. The assignments will be duly evaluated and added to the internal marks. The average marks of the assignments will be converted proportionately to a maximum of 20 marks. In case of absence or non-submission of any Assignment, zero marks will be awarded for the particular Assignment work.

8.17.5 Theory cum practical module : The sum of all the marks obtained by a student for all the laboratory experiments and model practical examination is aggregated into a maximum of 10 marks. The average mark of the

assignments aggregated to a maximum of 10 marks. (For continuous assessment, refer 18.i).

8.17.6 End-Theory Examination : There will be a final examination after the completion of each Module. The student shall write the examination covering the whole units of the module for a duration of three hours.

8.17.7 End-Practical Examination: Students will choose the experiment at random. Each student shall do the experiment or laboratory work independently without any assistance.

8.17.8 Viva Voce: Every student shall appear for the viva voce to assess the performance of the lab exercise / project done. The questions will be based on the work carried out in the lab exercise / project.

8.17.9 Project Report: Each student shall submit a minimum of two copies of the project work report to the Institution for evaluation by the Examiner in the prescribed format given.

8.18 Marks Allotment :

8.18.1 Degree Programmes:

8.18.1.1 Marks Allotment Degree : B.E., B.Tech, BBA, B.Com.

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min Total (required)	Max Mark
1	Theory	Internal	CAT's	20	8	40	100
			Assignment	20	8		
		External	End exam	60	24		
2	Theory cum Practical	Internal	CAT's	20	8	40	100
			Assignment	10	4		
			Practical	10	4		
		External	End Exam	60	24		
2	Practical	Internal	Record Work/Model Practical	40	16	40	100

		External	Demonstration	40	16		
			Viva voce	20	8		
3	Project Work	Internal	Project Report	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		
4	IPTR/ Teaching Practice	Internal	Performance Report	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		

8.18.1.2 Marks Allotment Degree : B.Sc. Ed.

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min Total (required)	Max Mark
1	Theory	Internal	CAT's	20	8	40	100
			Assignment	20	8		
		External	End exam	60	24		
2	Theory cum Practical	Internal	CAT's	20	8	40	100
			Assignment	10	4		
			Practical	10	4		
		External	End Exam	60	24		
2	Practical	Internal	Record Work/Model Practical	40	16	40	100
		External	Demonstration	40	16		
			Viva voce	20	8		
3	Project Work	Internal	Project Report	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		
4	IPTR/ Teaching Practice	Internal	Performance Report	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		

8.18.1.3 Marks Allotment Degree : MD

S/N	Modules	Assessment Type			Max Marks	Min Marks	Min (required each)	Max Marks
1	Theory	Internal	CAT's		30	15	*50	100
			Assignment		20	10		
		External	End exam		50	25		
		External	Practical		40	20		
			Viva voce		10	5		
2	Theory Cum Practical (Basic Sciences)	Internal	CAT's	60%	20	*8	*50	100
			Assignment		10	*4		
			Practical	40%	20	*8		
		External	Written – 60%		30	*12		
			Practical – 40%		20	*8		
3	Theory Cum Clinical (Clinical Courses)	Internal	CAT's	40%	10	*4	*50	100
			Assignment		10	*4		
			Practical	60%	30	*15		
		External	Written – 40%		20	*8		
			Practical – 60%		30	*15		
4	Project Work	Internal	Project Report		50	25	*50	100
		External	Evaluation		40	20		
			Viva Voce		10	5		
5	Field	Internal	Evaluation		40	20	*50	100
		External	Evaluation		40	20		
			Viva voce		20	10		

Note: Subject to change.

8.18.2 Marks Allotment – Diploma Programmes

8.18.2.1 Marks Allotment Diploma : Engineering

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min Total (required)	Max Mark
1	Theory	Internal	CAT's	20	8	40	100
			Assignment	20	8		

		External	End exam	60	24		
2	Practical	Internal	Record work	40	16	40	100
		External	Demonstration	40	16		
			Viva voce	20	8		
3	Project Work	Internal	Project Report	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		
4	IPTR / Teaching Practice	Internal	Evaluation	40	16	40	100
		External	Evaluation	40	16		
			Viva voce	20	8		

8.18.2.2 Marks Allotment – Diploma : Nursing and Pharmaceutical Sciences

S/N	Modules	Assessment Type		Max Marks	Min Marks	Min (required – Cumulative)	Max Marks
1	Theory	Internal	CAT's	30	15	*50	100
			Assignment	20	10		
		External	End exam	50	25		
2	Practical / Clinical	Internal	Record work	50	25	*50	100
		External	Demonstration	40	20		
			Viva voce	10	5		
3	Theory Cum Practical /Clinical	Internal	CAT's	20	10	*50	100
			Assignment	10	5		
			Practical	20	10		
		External	End Exam	50	25		
3	Project Work	Internal	Project Report	50	25	*50	100
		External	Evaluation	40	20		
			Viva voce	10	5		
4	Field	Internal	Evaluation	40	20	*50	100
		External	Evaluation	40	20		
			Viva voce	20	10		

8.19 Revaluation and Photocopy of Semester Examination :

A candidate can apply for photocopy of the answer scripts of theory modules performed at the end semester examinations, within 1 week from the date of declaration of results. Moreover, revaluation of theory modules performed at the end semester examinations, within 2 weeks from the date of declaration of results, on payment of a prescribed fee in the prescribed application form to the Controller of Examinations through the Head of Department / Head of the Institution concerned. The Controller of Examinations will arrange for revaluation and the results will be intimated to the candidate concerned through the Head of the Institution. No revaluation or Photocopy is provided for practical, Project, Teaching Practice or fieldwork modules.

8.20 Temporary Break of Study from a Programme:

8.20.1 A candidate is normally not permitted to have any temporary break of study. However, if a candidate intends to discontinue the Programme temporarily in the middle for valid reasons (such as an accident or hospitalization due to prolonged ill- health or social and economic grounds) and to re-join the program in a later semester, he / she shall apply to the Head of the Institution well in advance. In any case, not later than the last date for registering for the semester examinations, through the Head of the Department stating the reasons therefore.

8.20.2 Any candidate is permitted to re-join the program after a break shall be governed by the curriculum, rules, and regulations in force at the time of re-joining.

8.20.3 The total period for the completion of the program reckoned from the date of enrolment, shall not exceed the maximum duration specified irrespective of any break in study in order (refer 8.10).

8.20.4 If any student is detained for want of requisite of attendance, progress or good conduct, the period spent in that semester shall not be considered as permitted 'Break of study'.

9. GENERAL RULES AND REGULATIONS

9.1 GUIDELINES FOR STUDENTS

9.1.1 Acceptance of admission in the College is on condition, or upon agreement, by the student to abide by the By-Laws of the College.

9.1.2 Every student shall be punctual at all times and no appeal of delay will be entertained.

9.1.3 No student will be allowed to attend/involve in any academic events without his/her Identity Card. Using mobile phone in Class Rooms, Laboratories, Library and Academic area is strictly prohibited.

9.1.4 Every student shall pay the College fees in time.

9.1.5 Your examination fee payment and acceptance by the College/University is subject to clearance of the Tuition fee in full before commencement of the normal CAT-2/CAT-3 Examination whichever is the final CAT as per the Academic calendar.

9.1.6 Students' covered under family and personal health insurance scheme need not pay the NHIF.

9.1.7 Every student shall strictly follow the Dress Code of the College as prescribed in the By-laws of the College and Students' Diary.

9.1.8 Every student shall give due respect to all the members of staff.

9.1.9 Every student will have cordial relationship with his/her fellow students.

9.1.10 Every student shall abide by and be controlled by the By-laws of the College.

9.1.11 In case any loss of the copy of By-Laws of the College, the student shall report to the Principal immediately and collect a new copy of the same from the College office on required payment.

9.1.12 The Academic Plan is tentative and subject to change when necessary arises

9.1.13 Any violation of the Code of conduct /By-laws of the College will be deemed as a disciplinary offence and will attract disciplinary action.

9.2 DRESS CODE FOR STUDENTS

All students shall come to the University or College or Institution, observing the following Dress Code:

9.2.1 Common dress code :

9.2.1.1 Students should always wear their ID card in the campus except in their hostel rooms.

9.2.1.2 Special Coats, White and Blue, are Common for both gender for Lab work.

9.2.1.3 White over coat is exclusively meant for Computer, Electrical, Electronics, Medical, Biology, Chemistry, Physics Labs, and Agricultural Labs while Blue over coats shall be worn for Workshops and Civil Labs.

9.2.1.4 Formal shoes are compulsory for Boys and girls on all working days.

9.2.1.5 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

9.2.2 Dress code : Girls

Girl students shall wear only neat, decent and dignified formal dresses on all working days. Formal dresses consist of the following:

9.2.2.1 Formal dresses consist of skirts flowing well below knees, jeans without holes, shirts or tops with full or half sleeves and T-shirts with collar or round necks.

9.2.2.2 Girl's trousers shall always reach and remain on the upper waist.

9.2.2.3 Girl students should not cover the face inside the campus.

9.2.2.4 The list of prohibited girls wears includes the following:

9.2.2.5 Deep cut necks, V-neck T-shirts, strings tops, bare backs, sleeveless tops, tights, stockings, half trousers, three-fourth trousers, transparent wear, low cuts/ hipsters, high-heeled footwear and stilettos.

9.2.3 Dress code : Boys

Boys shall wear only neat, decent and dignified formal dresses on all working days. Formal dresses consist of the following:

9.2.3.1 Jeans without any holes, T- shirts with Collar, T-Shirts or shirts with full or half sleeves are allowed.

9.2.3.2 Boys shall always be clean-shaven and well-groomed face.

9.2.3.3 Boys shall always tuck in T- Shirts / shirts in the pants.

9.2.3.4 Boys' trousers shall always reach and remain on the upper waist.

9.2.3.5 The list of prohibited boys' wear includes the following:

Tracksuits, gowns, shorts, half trousers, three-fourth trousers transparent wear, Hat, sleeveless, round neck, V-neck and religious dresses.

Any violation of the code will be deemed as punishable offence and will attract the same degree of punishment like section 4.12 of college by laws.

9.3 Personality and Character Development

9.3.1 All the students shall enroll, on admission, in any one of the personality and character development programmes. The training will include classes on Hygiene and Health Awareness and also Training in First-Aid.

9.3.2 Training activities will normally be held during weekends, while camps will be organized during the vacation periods.

9.3.3 Every student shall put in a minimum of 85% attendance in the training Programme and attend a camp or a major Programme, in order to attain additional credits.

9.4 Extra Curricular Programmes

Students are encouraged to take up extracurricular activities with a view to develop their interpersonal skills. Opportunities provided through various Clubs and forums listed below:

- Department Clubs
- Newsletter Club
- Sports Club
- Fine Arts Club
- Community Club
- Quiz Club
- WISE Club

Students can earn additional credits for their extracurricular activities and publishing articles in Technical Journals of the College. Students are advised to contact the Dean of Students for more details.

9.5 Placement Programmes

The College Management is keen that all the needy students passing out of the portals of this University/College are placed in good jobs. Long-term strategic plans have been drafted to achieve this end and are being implemented systematically. Placement Coordinators, Staff and Students have been nominated to implement these programmes effectively. Contact the Coordinators for more details.

9.6 GILT – Global Institutional Learning and Training

Global Institutional Learning and Training under aegis of St. Joseph University, is a unique Programme of its kind. This is a twining Programme, offers a chance for the students to visit another country and spend two semesters or one academic year at the campus abroad where the student is exposed to new economy, new culture, new environment and modern industrial and management practices.

All these covered under the same tuition fees. The student has to bear his/her travel, boarding and lodging expenses only. This GILT Programme is all set to make students of St. Joseph University in Tanzania shine, with brighter colours, among the contemporaries. This twining Programme gives an international exposure to the students and enriches their skills and profile.

10.1 St. Joseph University College of Engineering and Technology, Dar es salaam (SJUCET)

10.1.1 Introduction

St. Joseph College of Engineering & Technology (SJUCET), 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 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.

10.1.2 Programmes Offered:

The College offers Degree, Diploma and Certificate programmes in Engineering and Science Education disciplines as below

10.1.2.1 Bachelor Degree Programme in Engineering

10.1.2.1.1 Bachelor of Engineering in Civil Engineering

10.1.2.1.2 Bachelor of Engineering in Mechanical Engineering

10.1.2.1.3 Bachelor of Engineering in Electrical and Electronics Engineering

10.1.2.1.4 Bachelor of Engineering in Electronics and Communication Engineering

10.1.2.1.5 Bachelor of Engineering in Computer Science and Engineering

10.1.2.1.6 Bachelor of Engineering in Information Systems and Network Engineering

COMMON TO ALL ENGINEERING PROGRAMMES		
Module Code	**Module Name**	**Credits**
Semester I		
099 LA 11	Communication Skills	12
099 MA 12	Engineering Mathematics I	15
099 PH 13	Engineering Physics	15
099 CE 14	Basic Civil Engineering	12

099 ME 15	Basic Mechanical Engineering	12
099 CS 17	Modern Information System Laboratory	9
099 ME 18	Engineering Drawing	12
Semester II		
099 ME 21	Engineering Mechanics	12
099 MA 22	Engineering Mathematics II	15
099 CS 23	Computer Programming	12
099 EE 24	Basic Electrical Engineering	12
099 EC 25	Basic Electronics Engineering	12
099 GE 26	Environmental Science and Engineering	12
099 CS 27	Computer Programming Laboratory	9
099 ME 28	Workshop Practice	9
10.1.2.1.1 Bachelor of Engineering in Civil Engineering		
Semester III		
051 MA31	Engineering Mathematics III	9
051 CE 32	Building Science	9
051 CE 33	Surveying I	9
051 CE 34	Architecture	9
051 CE 35	Mechanics of Solids	9
051 CE 36	Fluid Mechanics	9
051 CE 37	Hydraulics Engineering Laboratory	9
051 CE 38	Survey Practical I	9
051 IP 01	Industrial Practical Training I	20

Semester IV		
051 CE 41	Applied Hydraulic Engineering	9
051 CE 42	Concrete and Construction Technology	9
051 MA 43	Numerical Methods	9
051 CE 44	Soil Mechanics	9
051 CE 45	Strength of Materials	9
051 CE 46	Remote Sensing and GIS	9
051 CE 47	Strength of Materials Laboratory	9
051 CE 48	Soil Engineering Laboratory	9
Semester V		
051 CE 51	Structural Analysis I	9
051 CE 52	Structural Design I	9
051 CE 53	Surveying II	9
051 CE 54	Environmental Engineering I	9
051 CE 55	Transportation Engineering I	9
051 MA 56	Operational Research	9
051 CE 57	Computer Aided Building Drawing	9
051 CE 58	Survey Practical II	9
051 IP 02	Industrial Practical Training II	20
Semester VI		
051 CE 61	Structural Analysis II	9
051 CE 62	Structural Design II	9
051 CE 63	Foundation Engineering	9
051 CE 64	Environmental Engineering II	9

051 CE 65	Transportation Engineering II	9
051 CE 66	Irrigation Engineering	9
051 CE 67	Concrete and Highway Laboratory	9
051 CE 69	Mini Project	9
Semester VII		
051 CE 71	Estimation and Value Engineering	9
051 CE 72	Economics and Business Finance for Civil Engineers	9
051 CE 73	Construction Management	9
051 MG 74	Professional Ethics	6
	Elective Paper-I	9
	Elective Paper-II	9
051 CE 77	Computer Aided Design and Drawing	9
051 PJ 89	Project Phase-I	9
Semester VIII		
051 MG 81	Total Quality Management	6
	Elective Paper-I	9
	Elective Paper-II	9
051 PJ 89	Project Phase-II	36
List of Elective Papers		
051 CE 01	Bridge Structures	9
051 CE 02	Storage Structures	9
051 CE 03	Design of Plate and Shell Structure	9
051 CE 04	Tall Building	9
051 CE 05	Structural Dynamics	9

051 CE 06	Prefabricated Structures	9
051 CE 07	Wind Engineering	9
051 CE 08	Computer Aided Design of Structures	9
051 CE 09	Pre-stressed Concrete Structures	9
051 CE 10	Industrial Structures	9
051 CE 11	Smart Structures and Smart Materials	9
051 CE 12	Finite Element Techniques	9
051 CE 13	Ground Water Engineering	9
051 CE 14	Water Resources Engineering	9
051 CE 15	Management of Irrigation Systems	9
051 CE 16	Coastal Zone Management	9
051 CE 17	Transportation Planning and Systems	9
051 CE 18	Traffic Engineering and Management	9
051 CE 19	Housing Planning and Design	9
051 CE 20	Railways and Airport Engineering	9
051 CE 21	Urban and Regional Development	9
10.1.2.1.2 Bachelor of Engineering in Mechanical Engineering		
Semester III		
052 MA 31	Engineering Mathematics III	15
052 ME 32	Engineering Thermodynamics	12
052 ME 33	Theory of Machines	12
052 ME 34	Design and Drawing of Machine Element	12
052 ME 35	Fluid Mechanics and Machinery	12
052 ME 36	Engineering Materials and Metallurgy	12

052 CE 37	Fluid Mechanics and Machinery Laboratory	9
052 CE 38	Computer Aided Machine Drawing	9
052 IP 01	Industrial Practical Training I (4 weeks)	10
Semester IV		
052 IP 01	Industrial Practical Training I (4 weeks)	10
052 ME 41	Dynamics of Machines	12
052 ME 42	Heat And Mass Transfer	12
052 ME 43	Numerical Methods for Engineering Applications	15
052 EE 44	Electrical Machines and Drives	12
052 ME 45	Strength of Materials	12
052 ME 46	Refrigeration and Air Conditioning	12
052 ME 47	Strength of Materials Laboratory	9
052 ME 48	Thermal and Refrigeration Laboratory	9
Semester V		
052 ME 51	Production Technology	12
052 ME 52	Machine Tools	12
052 ME 53	Engineering Metrology	12
052 EE 54	Measurements and Controls	12
052 ME 55	Gas Dynamics and Space Propulsion	12
052 MA 56	Operational Research	15
052 ME 57	Manufacturing Technology Laboratory	9
052 ME 58	Kinetics and Dynamics Laboratory	9
052 IP 02	Industrial Practical Training I (4 weeks)	10

Semester VI		
052 IP 02	Industrial Practical Training I (4 weeks)	10
052 ME 61	Thermal Engineering	12
052 ME 62	Power Plant Engineering	12
052 ME 63	Design of Jigs, Fixtures and Press Tools	12
052 ME 64	Design of Transmission System	12
052 ME 65	Hydraulics and Pneumatics Controls	12
052 ME 66	Automobile Engineering	12
052 ME 67	Thermal Engineering Laboratory	9
052 ME 68	Design and Fabrication Project	9
Semester VII		
052 ME 71	Mechatronics	12
052 ME 72	Computer Integrated Manufacturing	12
052 ME 73	Process Planning and Cost Estimation	12
052 MG 74	Professional Ethics	6
	Elective I	9
	Elective II	9
052 ME 77	Mechatronics Laboratory	9
052 ME 78	Computer Aided Simulation and Analysis Laboratory	9
052 PJ 89	Project Phase I	9
Semester VIII		
052 MG 81	Total Quality Management	6
	Elective II	9
	Elective III	9

052 PJ 89	Project Phase II	36
List of Elective Papers		
052 ME 01	Energy Conservation and Management	9
052 ME 02	Composite Materials and Mechanics	9
052 ME 03	Turbo Machinery	9
052 ME 04	Computational Fluid Dynamics	9
052 ME 05	Design of Pressure Vessels and Piping	9
052 ME 06	Flexible Manufacturing System	9
052 ME 07	Finite Element Analysis	9
052 ME 08	Fundamentals of Nano Science	9
052 ME 09	Probability and Statistics	9
052 ME 10	Advanced IC Engines	9
052 ME 11	Theory of Metal Forming	9
052 ME 12	Entrepreneurship Development	9
052 ME 13	Marketing Management	9
052 ME 14	Product Design and Development	9
052 ME 15	Principles of Management	9
10.1.2.1.3 Bachelor of Engineering in Electrical and Electronics Engineering		
Semester III		
053 MA 31	Engineering Mathematics III	9
053 EC 32	Digital Electronics	9
053 EE 33	Electric Circuit Analysis	9
053 ME 34	Thermodynamics	9
053 EE 35	Electrical Machines – I	9

053 EE 36	Electro Magnetic Theory	9
053 EE 37	Electric Circuit Laboratory	9
053 EE 38	Electrical Machines Laboratory-I	9
053 IP 01	Industrial Practical Training I	20
Semester IV		
053 EE 41	Power Electronics	9
053 EC 42	Communication Engineering	9
053 EE 43	Electrical Machines – II	9
053 EC 44	Network Analysis and Synthesis	9
053 CS 45	Object Oriented Programming	9
053 EC 46	Electronic Devices and Circuits	9
053 EE 47	Power Electronics Laboratory	9
053 EE 48	Electrical Machines Laboratory-II	9
Semester V		
053 EE 51	Transmission & Distribution	9
053 EE 52	Measurements & Instrumentation	9
053 EE 53	Solid State Drives	9
053 EC 54	Linear Integrated Circuits	9
053 ME 55	Power Plant Engineering	9
053 EE 56	Design of Electrical Apparatus	9
053 EC 57	Electronic Circuits and IC Laboratory	9
053 EE 58	Measurements and Instrumentation Laboratory	9
053 IP 02	Industrial Practical Training	20

Semester VI		
053 EE 61	Renewable Energy Sources	9
053 EC 62	Digital Signal Processing(common)	9
053 EE 63	Protection and Switch Gear	9
053 EE 64	Power System Analysis	9
053 EC 65	Microprocessor and Microcontroller Applications	9
53 EE 606	Control Systems	9
053 EC 67	Microprocessor and Micro Controller Laboratory	9
053 PJ 69	Mini Project	9
Semester VII		
053 EE 71	High Voltage Engineering	9
053 EE 72	Power System Control	9
053 MG 73	Principles of Management (common)	6
053MG 74	Professional Ethics(common)	6
	Elective Theory –I	9
	Elective Theory –II	9
053 EE 77	Control Systems and Simulation Laboratory	9
053 EE 78	Power System Simulation Laboratory	9
053 PJ 89	Project Phase-I	9
Semester VIII		
053MG 81	Total Quality Management(common)	6
	Elective III	9
	Elective IV	9
053PJ 89	Project Phase –II	36

List of Elective Papers		
053 EE 01	Special Electrical Machines	9
053 EE 02	Computer Aided Design of Electrical Apparatus	9
053 EE 03	Power Electronic Instrument	9
053 EE 04	Advanced Power Electronic Systems	9
053 EE 05	EHV AC & DC Transmission	9
053 EE 06	Power System Operations	9
053 EE 07	Power System Transients	9
053 EE 08	Neural Networks and Applications to Power Systems	9
053 EE 09	Fuzzy Set Theory and Application to Power Systems	9
053 EE 10	Knowledge Based Systems	9
053 EE 11	Electric Energy Utilization and Conservation	9
053 EE 12	Advanced Control Systems	9
053 EE 13	Intelligent Controllers	9
053 EE 14	Bio-medical Instrumentation	9
053EC 15	Micro Controller Based System Design	9
053 CS 16	Database Management System	9
053 CS 17	Visual Language and its Application to Electrical Engineering	9
053 CS 18	Computer Networks	9
053 EE 19	Creativity, Innovation and New Product Development	9
053 EE 20	Solid State Relays	9
053 EE 21	Soft Computing	9
053 EE 22	Power Plant Instrumentation	9
053 EE 23	Robotics and Automation	9

053 EE 24	Medical Instrumentation	9
053 EE 25	HVDC Transmission	9
053EC 26	VLSI Design	9
053 EE 27	Embedded Control of Electrical Drives	9
053 CS 28	Computer Architecture	9
053 LA 29	Communication Skills for Engineers	9
10.1.2.1.4 Bachelor of Engineering in Electronics and Communication Engineering		
Semester III		
054 MA 31	Engineering Mathematics III	9
054 EC 32	Digital Electronics	9
054 EC 33	Electronic Circuits- I	9
054 EE 34	Circuit Theory	9
054 EC 35	Electro Magnetic Field	9
054 EC 36	Signals and Systems	9
054 EE 37	Electric Circuits and Machines Lab	9
054 EC 38	Electronic Devices and Circuits Laboratory	9
054 IP 01	Industrial Practical Training	20
Semester IV		
054 MA 41	Random Process	9
054 EC 42	Electronic Circuits- II	9
054 EC 43	Communication Theory and Systems	9
054 CS 44	Programming Data Structure	9
054 EC 45	Linear Integrated Circuits	9
054 EE 46	Measurements and Instrumentation	9

054 EC 47	Linear Integrated Circuits Lab	9
054 EC 48	Electronic Circuits Design Lab	9
Semester V		
054 EC 51	Microprocessor and Microcontroller Applications	9
054 EC 52	Digital Communication	9
054 EC 53	Digital Signal Processing	9
054 EE 54	Control System	9
054 EC 55	Transmission Lines and Waveguides	9
054 CS 56	Computer Architecture	9
054 EC 57	Digital Signal Processing Lab	9
054 EC 58	Microprocessor and Microcontroller Lab	9
54 IP 002	Industrial Practical Training	20
Semester VI		
054 EC 61	Microwave Engineering	9
054 EC 62	VLSI Design	9
054 EC 63	Telecommunication Switching and Networks	9
054 CS 64	Computer Communication and Networks	9
054 EC 65	Antennas and Propagation	9
054 EC 66	Optical Communication	9
054 EC 67	Microwave and Optical Communication Laboratory	9
054 EC 69	Mini Project	9
Semester VII		
054 EC 71	Satellite Communication	9
054 EC 72	Television Engineering	9

054 MG 73	Principles of Management	6
054 MG 74	Professional Ethics	6
	Elective I	9
	Elective II	9
054 EC 77	Electronic System Design Lab	9
054 EC 78	Communication System Lab	9
054 PJ 89	Project Phase-I	9
Semester VIII		
054 MG 81	Total Quality Management	6
	Elective II	9
	Elective III	9
054 PJ 89	Project Phase II	36
List of Elective Papers		
054 CS 01	Operating System	9
054EC 02	Computer Hardware and Interfacing	9
054EC 03	Advanced Microprocessor	9
054 CS 04	Object Oriented Programming	9
054 EE 05	Power Electronics	9
054EC 06	Industrial Electronics	9
054 EC 07	Medical Electronics	9
054 EC 08	Opto Electronics Device	9
054 EC 09	Advanced Electronics System Design	9
054 EC 10	Computer Aided Analysis and Design	9
054 EC 11	Nano Electronics	9

054 EC 12	Mobile Communication	9
054 EC 13	Mobile Adhoc Networks	9
054 EC 14	Radar & Navigation Aids	9
054 EC 15	Electromagnetic Interface & Compatibility	9
054 EC 16	Engineering Acoustics	9
054 EC 17	Integrated Service Digital Network	9
054 CS 18	Internet and Java	9
054 EC 19	Telecommunication System Modelling & Simulation	9
054 CS 20	Digital Image Processing	9
054 EC 21	Advanced Digital Signal Processing	9
10.1.2.1.5 Bachelor of Engineering in Computer Science and Engineering		
Semester III		
055 MA 31	Engineering Mathematics-III	9
055 EC 32	Digital Electronics	9
055 EE 33	Electrical Engineering and Control Systems	9
055 CS 34	Data Structures and Algorithms	9
055 CS 35	Database Management Systems	9
055 CS 36	System Software	9
055 EC 37	Digital Electronics Laboratory	9
055 CS 38	System Software and DBMS Laboratory	9
055 IP 01	Industrial Practical Training	20
Semester IV		
055 CS 41	Artificial Intelligence	9
055 CS 42	Computer Architecture-I	9

055 EC 43	Electronic Circuits	9
055 CS 44	Interactive Computer Graphics	9
055 CS 45	Object-Oriented Programming	9
055 MA 46	Probability and Queuing Theory	9
055 EC 47	Electronic Circuits Laboratory	9
055 CS 48	Object Oriented Programming Laboratory	9
Semester V		
055 EC 51	Analog, Digital and Data Communications	9
055 CS 52	Computer Architecture-II	9
055 CS 53	Theory of Computation	9
055 EC 54	Microprocessor	9
055 CS 55	Operating System	9
055 CS 56	Object Oriented System Analysis and Design	9
055 EC 57	Microprocessor Laboratory	9
055 CS 58	Operating System Laboratory	9
055 IP 02	Industrial Practical Training	20
Semester VI		
055 CS 61	Computer Networks	9
055 EC 62	Digital Signal Processing	9
055 CS 63	Software Engineering	9
055 CS 64	Network Protocols, Management & Security	9
055 CS 65	Web Technology	9
055 CS 66	Principles of Compiler Design	9
055 CS 67	Network Programming Laboratory	9

055 CS 68	Internet Programming Laboratory	9
055 PJ 69	Mini Project	9
Semester VII		
055 MG 71	Engineering Economics and Financial Accounting	9
055 CS 72	Visual Programming	9
055 MG 73	Principles of Management	6
055 MG 74	Professional Ethics	6
	Elective Theory-I	9
	Elective Theory-II	9
055 CS 77	Visual Programming Laboratory	9
055 PJ 89	Project Phase – I	9
Semester VIII		
055 MG 81	Total Quality Management	6
	Elective Theory-II	9
	Elective Theory-III	9
55 PJ 89	Project Phase – II	36
List of Elective Papers		
055 CS 01	Advanced Operating System	9
055 CS 02	Design OF Algorithms	9
055 CS 03	Parallel Computing	9
055 CS 04	Algorithms for VLSI Design Automation	9
055 CS 05	Neural Computing	9
055 CS 06	Real Time Systems	9
055 CS 07	Digital Speech and Image Processing	9

055 CS 08	Pattern Recognition	9
055 CS 09	Parallel Algorithms	9
055 CS 10	ATM Networking	9
055 CS 11	Multimedia	9
055 CS 12	Software Testing	9
055 CS 13	Advanced Databases	9
055 CS 14	High Performance Microprocessors	9
055 CS 15	Robotics	9
055 CS 16	Advanced Software Engineering	9
055 MA 17	Graph Theory	9
055 CS 18	Custom Computing	9
055 CS 19	Unix Internals	9
055 CS 20	Resource Management Techniques	9
055 CS 21	Distributed Objects	9
055 CS 22	Advanced Java Programming	9
055 CS 23	Java Virtual Machine	9
055 CS 24	Distributed Computing	9
055 CS 25	Bio-Informatics	9
055 CS 26	C# and .Net Framework	9
055 CS 27	Mobile Computing	9
055 CS 28	Grid Computing	9
055 CS 29	Ad-hoc Networks	9
055 EC30	Embedded Systems	9

10.1.2.1.6 Bachelor of Engineering in Information Systems and Network Engineering		
Module Code	**Module Name**	**Credits**
Semester III		
056 MA 31	Engineering Mathematics-III	9
056 EC 32	Digital Electronics	9
056 CS 33	Object Oriented Programming in C++	9
056 EC 34	Principles of Communications	9
056 CS 35	Computer Architecture	9
056 CS 36	Data Structures and Algorithms	9
056 CS 37	C++ Programming Laboratory	9
056 EC 38	Digital Electronics Laboratory	9
056 IP 01	Industrial Practical Training	20
Semester IV		
056 EC 41	Microprocessor and Microcontroller Applications	9
056 EC 42	Telecommunication Switching and Networks	9
056 CS 43	Java Programming	9
056 CS 44	Operating System	9
056 CS 45	Database Management System	9
056 CS 46	Software Engineering	9
056 CS 47	RDBMS Laboratory	9
056 EC 48	Communication System Laboratory	9
Semester V		
056 EC 51	Embedded Architecture	9
056 CS 52	Computer Networks	9

056 CS 53	Visual Programming	9
056 EC 54	Information Coding Techniques	9
056 CS 55	Software Quality Management	9
056 CS 56	Object Oriented Analysis and Design	9
056 CS 57	Case Tools Laboratory	9
056 CS 58	Visual Programming Laboratory	9
056 IP 02	Industrial Practical Training	20
Semester VI		
056 CS 61	TCP/IP and Socket Programming	9
056 EC 62	Digital Signal Processing	9
056 CS 63	Component Based Technology	9
056 CS 64	Web Technology	9
056 EC 65	Mobile Communications	9
056 CS 66	High Performance Networks	9
056 CS 67	Software Component Laboratory	9
056 CS 69	Mini Project	9
Semester VII		
056 CS 71	Cryptography, Network Management and Security	9
056 CS 72	Multimedia System	9
056 MG 73	Principles of Management	6
056 MG 74	Professional Ethics	6
	Elective Theory-I	9
	Elective Theory-II	9
056 CS 77	Networking Laboratory	9

056 CS 78	Multimedia Laboratory	9
056 PJ 89	Project Phase –I	9
Semester VIII		
056 MG 81	Total Quality Management	6
	Elective Theory-III	9
	Elective Theory-IV	9
056 PJ 89	Project Phase – II	36
List of Elective Papers		
056 CS 01	Advanced Operating System	9
056 CS 02	Design of Algorithms	9
056 CS 03	Parallel Computing	9
056 CS 04	Algorithms for VLSI Design Automation	9
056 CS 05	Neural Computing	9
056 CS 06	Real Time Systems	9
056 CS 07	Digital Speech and Image Processing	9
056 CS 08	Pattern Recognition	9
056 CS 09	Parallel Algorithms	9
056 CS 10	ATM Networking	9
056 CS 11	Multimedia	9
056 CS 12	Software Testing	9
056 CS 13	Advanced Databases	9
056 EC14	High Performance Microprocessors	9
056 CS 15	Robotics	9
056 CS 16	Advanced Software Engineering	9

056 MA 17	Graph Theory	9
056 CS 18	Custom Computing	9
056 CS 19	Unix Internals	9
056 MG 20	Resource Management Techniques	9
056 CS 21	Distributed Objects	9
056 CS 22	Advanced Java Programming	9
056 CS 23	Java Virtual Machine	9
056 CS 24	Distributed Computing	9
056 CS 25	Bio Informatics	9

10.1.2.2 Bachelor Degree Programme in Science in Education

10.1.2.2.1 Bachelor of Science in Education with Physics and Chemistry

10.1.2.2.2 Bachelor of Science in Education with Physics and Mathematics

10.1.2.2.3. Bachelor of Science in Education with Physics and Computer Science

10.1.2.2.4. Bachelor of Science in Education with Mathematics and Chemistry

10.1.2.2.5. Bachelor of Science in Education with Mathematics and Computer Science

10.1.2.2.6. Bachelor of Science in Education with Biology and Chemistry

10.1.2.2 BACHELOR OF SCIENCE IN EDUCATION

CURRICULUM – 2013 (3 YEARS)

PHYSICS

COURSE MODULES AND CREDITS: YEAR 1

Module Code	Module Name	Credits
Semester I (Year 1)		
701 LA 51	Communication Skills I	9
701 ED 52	Challenges in Education	9
701 ED 53	Educational Psychology I	12
701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
701 IP 60	Teaching Practice	14
Semester II (Year 1)		
701 IP 60	Teaching Practice	14
701 LA 61	Communication Skills II	9
701 ED 62	Educational Technology	9
701 ED 63	Educational Psychology II	12
701 ED 64	Educational Management II	9
701 SC 65	Science Education	12
	Elective in Education I	9
COURSE MODULES AND CREDITS: YEAR 2		
Semester III (Year 2)		
352 PH 71	Mechanics	9
352 PH 72	Heat and Thermo Dynamics	9

352 PH 73	Properties of matter and Sound	9
352 PH 74	Optics	9
	Elective in Education II	9
352 PH 76	Physics Practical I	9
352 PH 77	Physics Practical II	9
352 CS 78	Modern Information System Lab	9
352 IP 80	Teaching Practice	14
Semester IV (Year 2)		
352 IP 80	Teaching practice	14
352 PH 81	Electricity and Magnetism	9
352 PH 82	Emerging Physics	9
352 PH 83	Basic Electronics	9
	Second Major Module I	9
	Second Major Module II	9
352 PH 86	Physics Practical III	9
	Allied Practical I (Second Major)	9
352 CS 88	Computer Programming Lab	9
COURSE MODULES AND CREDITS: YEAR 3		
Semester V (Year 3)		
352 PH 91	Atomic Physics	9
352 PH 92	Nuclear Physics	9
352 PH 93	Quantum Mechanics and Relativity	9
	Second Major Module III	9
	Second Major Module IV	9
	Physics Practical IV	

	Allied Practical II (Second Major)	
Semester VI (Year 3)		
352 MG 101	Environmental Studies	9
352 PH 102	Solid State Physics	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
352 PJ 100	Project	21
ELECTIVES IN EDUCATION		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9

CORE ELECTIVES, CORE PRACTICALS AND CREDITS		
Theory Modules		
352 EE 01	Applied Physics	9
352 EE 02	Energy Physics	9
352 EE 03	Electronics Communication	9
352 EE 04	Laser and Spectroscopy	9
352 EE 05	Electrical Appliances	9
352 EE 06	Microprocessor and its Application	9
352 EE 07	C++ Programming	9
	Practical Modules	
352 PH 71	Physics Practical I	9
352 PH 72	Physics Practical II	9
352 PH 73	Physics Practical III	9
352 PH 74	Physics Practical IV	9
SECOND MAJOR (OPTION 1) : CHEMISTRY		
THEORY MODULES – CHEMISTRY		
352 CH 01	Analytical Chemistry	9
352 CH 02	Concepts in Inorganic Chemistry	9
352 CH 03	Hydrocarbons and Stereochemistry	9
352 CH 04	Organic Functional Groups I	9
352 CH 05	Main Group Elements and Solid State Chemistry	9
352 CH 06	Thermodynamics	9
352 CH 07	Electrochemistry	9
352 CH 08	Organic Functional Groups II	9
352 CH 09	Chemistry of Materials	9

352 CH 10	Industrial Chemistry	9
352 CH 11	Transition Elements and Nuclear Chemistry	9
352 EE 12	Phase Equilibria and Kinetics	9
352 EE 13	Polymer Chemistry	9
352 EE 14	Biochemistry	9
352 EE 15	Food Chemistry and Technology	9
PRACTICAL MODULES – CHEMISTRY		
352 CH 16	Inorganic Qualitative Analysis	9
352 CH 17	Organic Qualitative Analysis	9
352 CH 18	Volumetric Analysis and Inorganic Preparations	9
352 CH 19	Physical Chemistry Practical	9
SECOND MAJOR (OPTION 2) : COMPUTER SCIENCE		
THEORY MODULES – COMPUTER SCIENCE		
352 CS 01	Computer Organization and Architecture	9
352 CS 02	Data Structures and Algorithms	9
352 CS 03	Relational Database Management System	9
352 CS 04	Operating System	9
352 CS 05	Computer Graphics	9
352 CS 06	Visual Programming	9
352 CS 07	Object Oriented Programming	9
352 CS 08	Data Communication and Networking	9
352 CS 09	Computer Installation & Servicing	9
352 CS 10	Programming in Java	9
352 CS 11	Computer Network & Security	9

PRACTICAL MODULES – COMPUTER SCIENCE		
352 CS 16	Relational Database Management System and Operating System	9
352 CS 17	Object Oriented Programming and Visual Programming	9
352 CS 18	Programming in Java and Web Technology Laboratory	9
352 CS 19	Computer Installation & Servicing and Computer Network and	9
CHEMISTRY		
COURSE MODULES AND CREDITS: YEAR 1		
Semester I (Year 1)		
701 LA 51	Communication Skills I	9
701 ED 52	Challenges in Education	9
701 ED 53	Educational Psychology I	12
701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
701 TP 60	Teaching Practice	14
Semester II (Year 1)		
701 TP 60	Teaching Practice	14
701 LA 61	Communication Skills II	9
701 ED 62	Educational Technology	9
701 ED 63	Educational Psychology II	12
701 ED 64	Educational Management II	9
701 SC 65	Science Education	12
	Elective in Education I	9

COURSE MODULES AND CREDITS : YEAR 2		
Semester III (Year 2)		
353 CH 71	Analytical Chemistry	9
353 CH 72	Concepts in Inorganic Chemistry	9
353 CH 73	Hydrocarbons and Stereochemistry	9
353 CH 74	Organic Functional Groups I	9
	Elective in Education II	9
353 CH 76	Inorganic Qualitative Analysis	9
353 CH 77	Organic Qualitative Analysis	9
353 CS 78	Modern Information System Lab	9
353 TP 80	Teaching Practice	14
Semester IV (Year 2)		
353 TP 80	Teaching practice	14
353 CH 81	Main Group Elements and Solid State Chemistry	9
353 CH 82	Thermodynamics	9
353 CH 83	Electrochemistry	9
	Second Major Module I	9
	Second Major Module II	9
353 CH 86	Volumetric analysis and Inorganic Preparations	9
	Allied Practical I (Second Major)	9
353 CS 88	Computer Programming Lab	9
COURSE MODULES AND CREDITS : YEAR 3		
Semester V (Year 3)		
353 CH 91	Organic Functional Groups II	9
353 CH 92	Chemistry of Materials	9

353 CH 93	Industrial Chemistry	9
	Second Major Module III	9
	Second Major Module IV	9
353 CH 96	Physical Chemistry Practical	9
	Allied Practical II (Second Major)	9
Semester VI (Year 3)		
353 MG 101	Environmental Studies	9
353 CH 102	Transition Elements and Nuclear Chemistry	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
353 PJ 100	Project	21
ELECTIVE MODULES IN EDUCATION		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9

701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
CORE ELECTIVES,CORE PRACTICALS AND CREDITS		
Theory Modules		
353 EE 01	Phase Equilibria and kinetics	9
353 EE 02	Polymer Chemistry	9
353 EE 03	Biochemistry	9
353 EE 04	Food chemistry and Technology	9
Practical Modules		
353 CH 76	Inorganic Qualitative Analysis	9
353 CH 77	Organic Qualitative Analysis	9
353 CH 86	Volumetric analysis and Inorganic Preparations	9
353 CH 96	Physical Chemistry Practical	9
SECOND MAJOR (OPTION 1): BIOLOGY		
Biology Theory Modules		
353 BI 01	Algae and Bryophytes	9
353 BI 02	Fungi, Plant pathology and Lichens	9
353 BI 03	Invertebrata	9
353 BI 04	Chordata	9
353 BI 05	Pteridophytes, Gymnosperm and Paleobotany	9
353 BI 06	Developmental Biology and Immunology	9
353 BI 07	Cell and Molecular Biology	9
353 BI 08	Plant Physiology	9
353 BI 09	Microbiology and Biochemistry	9
353 BI 10	Animal Physiology	9

353 BI 11	Genetics and Biotechnology	9
353 BI 12	Taxonomy of Angiosperms	9
353 BI 13	Nutrition and Dietetics	9
Biology Practical Modules		
353 BI 20	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
353 BI 21	Invertebrata and Chordata Lab	9
353 BI 22	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and Embryology Lab	9
353 BI 23	Plant and Animal Physiology Lab	9
SECOND MAJOR (OPTION-2): PHYSICS		
THEORY MODULES		
353 PH 01	Mechanics	9
353 PH 02	Heat and Thermo Dynamics	9
353 PH 03	Properties of Matter and Sound	9
353 PH 04	Optics	9
353 PH 05	Electricity and Magnetism	9
353 PH 06	Emerging Physics	9
353 PH 07	Basic Electronics	9
353 PH 08	Atomic Physics	9
353 PH 09	Nuclear Physics	9
353 PH 10	Quantum Mechanics and Relativity	9
353 PH 11	Solid State Physics	9
353 PH 16	Physics Practical I	9
353 PH 17	Physics Practical II	9
353 PH 18	Physics Practical III	9
353 PH 19	Physics Practical IV	9

MATHEMATICS		
COURSE MODULES AND CREDITS: YEAR 1		
Semester I (Year 1)		
701 LA 51	Communication Skills I	9
701 ED 52	Challenges in Education	9
701 ED 53	Educational Psychology I	12
701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
701TP 60	Teaching Practice	14
Semester II (Year 1)		
701TP 60	Teaching Practice	14
701 LA 61	Communication Skills II	9
701 ED 62	Educational Technology	9
701 ED 63	Educational Psychology II	12
701 ED 64	Educational Management II	9
701 SC 65	Science Education	12
	Elective in Education I	9
COURSE MODULES AND CREDITS: YEAR 2		
Semester III (Year 2)		
350 MA 71	Introductory Algebra	9
350 MA 72	Trigonometry	9
350 MA 73	Calculus	9
	Core Elective I	9
	Elective in Education II	9

350 CS 77	Modern Information System Lab	9
350TP 80	Teaching Practice	14
Semester IV (Year 2)		
350TP 80	Teaching practice	14
350 MA 81	Analytical Geometry	9
350 MA 82	Differential equations and its Applications	9
350 MA 83	Discrete Mathematics	9
	Second Major Module I	9
	Second Major Module II	9
	Allied Practical I (Second major)	9
350 CS 87	Computer Programming Laboratory	9
COURSE MODULES AND CREDITS: YEAR 3		
Semester V (Year 3)		
350 MA 91	Vector analysis and Fourier Analysis	12
350 MA 92	Linear Programming	9
350 MA 93	Modern Algebra	9
	Second Major Module III	9
	Second Major Module IV	9
	Allied Practical III (Second Major)	9
Semester VI (Year 3)		
350 MG 101	Environmental Studies	9
350 MA 102	Real Analysis	9
350 MA 103	Complex Analysis	9
	Core Elective II	9
	Core Elective III	9

350 PJ 100	Project	21
CORE ELECTIVE MODULES AND CREDITS		
350 EE 01	Operation Research	9
350 EE 02	Numerical Methods	9
350 EE 03	Quantitative Techniques	9
350 EE 04	Probability Theory	9
350 EE 05	Graph Theory	9
ELECTIVE MODULES IN EDUCATION AND CREDITS		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
SECOND MAJOR (OPTION-1): PHYSICS		
THEORY MODULES		
350 PH 01	Mechanics	9

350 PH 02	Heat and Thermo Dynamics	9
350 PH 03	Properties of Matter and Sound	9
350 PH 04	Optics	9
350 PH 05	Electricity and Magnetism	9
350 PH 06	Emerging Physics	9
350 PH 07	Basic Electronics	9
350 PH 08	Atomic Physics	9
350 PH 09	Nuclear Physics	9
350 PH 10	Quantum Mechanics and Relativity	9
350 PH 11	Solid State Physics	9
PRACTICAL MODULES		
350 PH 16	Physics Practical I	9
350 PH 17	Physics Practical II	9
350 PH 18	Physics Practical III	9
350 PH 19	Physics Practical IV	9
SECOND MAJOR (OPTION-2) : COMPUTER SCIENCE		
THEORY MODULES		
350 CS 01	Computer Organization and Architecture	9
350 CS 02	Data Structures and Algorithms	9
350 CS 03	Relational Database Management System	9
350 CS 04	Operating System	9
350 CS 05	Computer Graphics	9
350 CS 06	Visual Programming	9
350 CS 07	Object Oriented Programming	9
350 CS 08	Data Communication and Networking	9

350 CS 09	Computer Installation & Servicing	9
350 CS 10	Programming in Java	9
350 CS 11	Computer Network & Security	9
PRACTICALS MODULES		
350 CS 16	Relational Database Management System and Operating System laboratory	9
350 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
350 CS 18	Programming in Java and Web Technology Laboratory	9
350 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
SECOND MAJOR (OPTION 3) : CHEMISTRY		
THEORY MODULES – CHEMISTRY		
350 CH 01	Analytical Chemistry	9
350 CH 02	Concepts in Inorganic Chemistry	9
350 CH 03	Hydrocarbons and Stereochemistry	9
350 CH 04	Organic Functional Groups I	9
350 CH 05	Main Group Elements and Solid State Chemistry	9
350 CH 06	Thermodynamics	9
350 CH 07	Electrochemistry	9
350 CH 08	Organic Functional Groups II	9
350 CH 09	Chemistry of Materials	9
350 CH 10	Industrial Chemistry	9
350 CH 11	Transition Elements and Nuclear Chemistry	9
350 EE 12	Phase Equilibria and Kinetics	9
350 EE 13	Polymer Chemistry	9
350 EE 14	Biochemistry	9

350 EE 15	Food Chemistry and Technology	9
PRACTICAL MODULES – CHEMISTRY		
350 CH 16	Inorganic Qualitative Analysis	9
350 CH 17	Organic Qualitative Analysis	9
350 CH 18	Volumetric Analysis and Inorganic Preparations	9
350 CH 19	Physical Chemistry Practical	9
BIOLOGY		
COURSE MODULES AND CREDITS: YEAR 1		
Semester I (Year 1)		
701 LA 51	Communication Skills I	9
701 ED 52	Challenges in Education	9
701 ED 53	Educational Psychology I	12
701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
701 TP 60	Teaching Practice	14
Semester II (Year 1)		
701 TP 60	Teaching Practice	14
701 LA 61	Communication Skills II	9
701 ED 62	Educational Technology	9
701 ED 63	Educational Psychology II	12
701 ED 64	Educational Management II	9
701 SC 65	Science Education	12
	Elective in Education I	9

COURSE MODULES AND CREDITS: YEAR – 2		
Semester III (Year 2)		
354 BI 71	Algae and Bryophytes	9
354 BI 72	Fungi, Plant pathology and Lichens	9
354 BI 73	Invertebrata	9
354 BI 74	Chordata	9
	Elective in Education II	9
354 BI 76	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
354 BI 77	Invertebrata and Chordata Lab	9
354 CS 78	Modern Information System Lab	9
354 TP 80	Teaching Practice	14
Semester IV (Year 2)		
354 TP 80	Teaching practice	14
354 BI 81	Pteridophytes, Gymnosperm and Paleobotany	9
354 BI 82	Developmental Biology and Immunology	9
354 BI 83	Cell and Molecular Biology	9
	Second Major Module I	9
	Second Major Module II	9
354 BI 86	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and	9
354 BI 87	Allied Practical I (Second Major)	9
354 CS 88	Computer Programming Lab	9
COURSE MODULES AND CREDITS: YEAR 3		
Semester V (Year 3)		
354 BI 91	Plant Physiology	9
354 BI 92	Microbiology and Biochemistry	9

354 BI 93	Animal Physiology	9
	Second Major module III	9
	Second Major Module IV	9
354 BI 96	Plant and Animal Physiology Lab	9
	Allied Practical II (Second Major)	9
Semester VI (Year 3)		
701 MG 101	Environmental Studies	9
354 BO 102	Genetics and Biotechnology	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
701 PJ 100	Project	21
ELECTIVES IN EDUCATION AND CREDITS		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9

701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
CORE ELECTIVE MODULES AND CREDITS		
354 BI 01	Taxonomy of Angiosperms	9
354 BI 02	Forestry	9
354 BI 03	Organic farming	9
354 BI 04	Medicinal Plants	9
354 BI 05	Food Preservation	9
354 BI 06	Bioinformatics	9
354 BI 07	Aquaculture	9
354 BI 08	Apiculture	9
354 BI 09	Nutrition and Dietetics	9
354 BI 10	Phytochemistry	9
SECOND MAJOR (OPTION 1): CHEMISTRY		
THEORY MODULES – CHEMISTRY		
354 CH 01	Analytical Chemistry	9
354 CH 02	Concepts in Inorganic Chemistry	9
354 CH 03	Hydrocarbons and Stereochemistry	9
354 CH 04	Organic Functional Groups I	9
354 CH 05	Main Group Elements and Solid State Chemistry	9
354 CH 06	Thermodynamics	9
354 CH 07	Electrochemistry	9
354 CH 08	Organic Functional Groups II	9
354 CH 09	Chemistry of Materials	9
354 CH 10	Industrial Chemistry	9

354 CH 11	Transition Elements and Nuclear Chemistry	9
354 CH 12	Phase Equilibria and Kinetics	9
354 CH 13	Polymer Chemistry	9
354 CH 14	Biochemistry	9
354 CH 15	Food Chemistry and Technology	9
PRACTICAL MODULES – CHEMISTRY		
354 CH 16	Inorganic Qualitative Analysis	9
354 CH 17	Organic Qualitative Analysis	9
354 CH 18	Volumetric Analysis and Inorganic Preparations	9
354 CH 19	Physical Chemistry Practical	9
SECOND MAJOR (OPTION 2) : COMPUTER SCIENCE		
THEORY MODULES – COMPUTER SCIENCE		
354 CS 01	Computer Organization and Architecture	9
354 CS 02	Data Structures and Algorithms	9
354 CS 03	Relational Database Management System	9
354 CS 04	Operating System	9
354 CS 05	Computer Graphics	9
354 CS 06	Visual Programming	9
354 CS 07	Object Oriented Programming	9
354 CS 08	Data Communication and Networking	9
354 CS 09	Computer Installation & Servicing	9
354 CS 10	Programming in Java	9
354 CS 11	Computer Network & Security	9

PRACTICAL MODULES – COMPUTER SCIENCE		
354 CS 16	Relational Database Management System and Operating System laboratory	9
354 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
354 CS 18	Programming in Java and Web Technology Laboratory	9
354 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
COMPUTER SCIENCE		
COURSE MODULES AND CREDITS: YEAR 1		
Semester I (Year 1)		
701 LA 51	Communication Skills I	9
701 ED 52	Challenges in Education	9
701 ED 53	Educational Psychology I	12
701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
701 TP 60	Teaching Practice	14
Semester II (Year 1)		
701 TP 60	Teaching Practice	14
701 LA 61	Communication Skills II	9
701 ED 62	Educational Technology	9
701 ED 63	Educational Psychology II	12
701 ED 64	Educational Management II	9
701 SC 65	Science Education	12
	Elective in Education I	9

COURSE MODULES AND CREDITS: YEAR 2		
Semester III (Year 2)		
351 CS 71	Operating System	9
351 CS 72	Visual Programming	9
351 CS 73	Object Oriented programming	9
351 CS 74	Relational Database Management System	9
	Elective in Education II	9
351 CS 76	Relational Database Management System and Operating System Laboratory	9
351 CS 77	Object Oriented programming and Visual Programming Laboratory	9
351 CS 78	Modern Information System Lab	9
351 TP 80	Teaching Practice	14
Semester IV (Year 2)		
351 TP 80	Teaching practice	14
351 CS 81	Data Structures and Algorithms	9
351 CS 82	Computer Organization and Architecture	9
351 CS 83	Programming in Java	9
	Second Major Module I	9
	Second Major Module II	9
351 CS 86	Programming in Java and Web Technology Lab	9
	Allied Practical I (Second Major)	9
351 CS 88	Computer Programming Lab	9
Semester V (Year 3)		
COURSE MODULES AND CREDITS : Year 3		
351 CS 91	Computer Installation and Servicing	9

351 CS 92	Computer Network & Security	9
351 CS 93	Computer Graphics	9
	Second Major Module III	9
	Second Major Module IV	9
351 CS 96	Computer Installation & Servicing and Computer Network and Security Laboratory	9
	Allied Practical II (Second Major)	9
Semester VI (Year 3)		
351MG 101	Environmental Science	9
351 CS 102	Data Communication and Networking	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
351 PJ 100	Project	21
ELECTIVE COURSE MODULES IN EDUCATION		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9

701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
CORE ELECTIVE MODULES AND CREDITS		
Computer Science Elective Modules		
351 EE 01	Software Engineering	9
351 EE 02	Web Technology	9
351 EE 03	Financial Accounting	9
351 EE 04	Management Information System	9
351 EE 05	System Analysis and Design	9
SECOND MAJOR (OPTION 1) : MATHEMATICS		
THEORY MODULES (MATHEMATICS)		
351 MA 01	Introductory Algebra	9
351 MA 02	Trigonometry	9
351 MA 03	Calculus	9
351 MA 04	Analytical Geometry	9
351 MA 05	Differential Equations and its Applications	9
351 MA 06	Discrete Mathematics	9
351 MA 07	Vector Analysis and Fourier Analysis	9
351 MA 08	Linear Programming	9
351 MA 09	Modern Algebra	9
351 MA 10	Operation Research	9
351 MA 11	Numerical Methods	9
351 MA 12	Quantitative Techniques	9
351 MA 13	Probability Theory	9

351 MA 14	Graph Theory	9
SECOND MAJOR (OPTION 2): BIOLOGY		
Biology Theory Modules		
351 BI 01	Algae and Bryophytes	9
351 BI 02	Fungi, Plant pathology and Lichens	9
351 BI 03	Invertebrata	9
351 BI 04	Chordata	9
351 BI 05	Pteridophytes, Gymnosperm and Paleobotany	9
351 BI 06	Developmental Biology and Immunology	9
351 BI 07	Cell and Molecular Biology	9
351 BI 08	Plant Physiology	9
351 BI 09	Microbiology and Biochemistry	9
351 BI 10	Animal Physiology	9
351 BI 11	Genetics and Biotechnology	9
351 BI 12	Taxonomy of Angiosperms	9
351 BI 13	Nutrition and Dietetics	9
Biology Practical Modules		
351 BI 20	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
351 BI 21	Invertebrata and Chordata Lab	9
351 BI 22	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and Embryology Lab	9
351 BI 23	Plant and Animal Physiology Lab	9
CURRICULUM – 2013 (5 YEARS)		
PHYSICS COURSE MODULES AND CREDITS: YEAR 1		
Trimester I (Year 1)		
800 LA 01	English	8

800 MA 02	Basic Mathematics		9
800 SC 03	Physics and Chemistry		9
800 SC 04	Biology		9
800 SS 05	Social Science		8
Trimester II (Year 1)			
800 MA 11	Fundamental Mathematics I		9
800 PH 12	Basic Physics I		9
800 CH 13	Basic Chemistry I		9
800 BO 14	Basic Biology I		9
800 CS 15	Basic Computer Science I		9
800 MA 21	Fundamental Mathematics II		9
800 PH 22	Basic Physics II		9
800 CH 23	Basic Chemistry II		9
800 BO 24	Basic Biology II		9
800 CS 25	Basic Computer Science II		9
COURSE MODULES AND CREDITS: YEAR 2			
Semester I (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 31	General Studies I	**Compulsory**	6
800 LA 32	Basic Communication Skills I	**Compulsory**	9
800 CS 33	Computer Programming I	**Compulsory**	12
PART-II: (Any three modules shall be chosen from the given modules)			
800 MA 34	Advanced Mathematics I	The Combination shall be either PCM / PCB / CBM / PBM	12
800 SC 35	Advanced Physics I		12
800 CH 36	Advanced Chemistry I		12

800 BO 37	Advanced Biology I		12
Semester II (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 41	General Studies II	**Compulsory**	6
800 LA 42	Basic Communication Skills II	**Compulsory**	9
800 CS 43	Computer Programming II	**Compulsory**	12
PART – II: (Three modules of the same combination as in semester III)			
800 MA 44	Advanced Mathematics II	The combination shall be the same as in Semester III	12
800 SC 45	Advanced Physics II		12
800 CH 46	Advanced Chemistry II		12
800 BO 47	Advanced Biology II		12
COURSE MODULES AND CREDITS: YEAR 3			
Semester III (Year 3)			
701 LA 51	Communication Skills		9
701 ED 52	Challenges in Education		9
701 ED 53	Educational Psychology I		12
701 ED 54	Educational Management I		9
701 ED 55	Methods of Teaching Mathematics		12
701 ED 56	Computer Science Education		9
Semester IV (Year 3)			
701 ED 61	Educational Technology		9
701 ED 62	Educational Psychology II		12
701 ED 63	Educational Management II		9
701 ED 64	Science Education		12
	Elective in Education I		9

701 CS 66	Modern Information System Lab	9
COURSE MODULES AND CREDITS: YEAR 4		
Semester V (Year 4)		
352 PH 71	Mechanics	9
352 PH 72	Heat and Thermo Dynamics	9
352 PH 73	Properties of matter and Sound	9
352 PH 74	Optics	9
	Elective in Education II	9
352 PH 76	Physics Practical I	9
352 PH 77	Physics Practical II	9
352 TP 80	Teaching Practice	14
Semester VI (Year 4)		
352 TP 80	Teaching practice	14
352 PH 81	Electricity and Magnetism	9
352 PH 82	Emerging Physics	9
352 PH 83	Basic Electronics	9
	Second Major Module I	9
	Second Major Module II	9
352 PH 86	Physics Practical III	9
	Allied Practical I (Second Major)	9
COURSE MODULES AND CREDITS: YEAR 5		
Semester VII (Year 5)		
352 PH 91	Atomic Physics	9
352 PH 92	Nuclear Physics	9
352 PH 93	Quantum Mechanics and Relativity	9

	Second Major Module III	9
	Second Major Module IV	9
	Physics Practical IV	9
	Allied Practical II (Second Major)	9
352 TP 100	Teaching Practice	14
Semester VIII (Year 5)		
352 TP 100	Teaching Practice	14
352 MG 101	Environmental Studies	9
352 PH 102	Solid State Physics	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
352 PJ 100	Project	21
ELECTIVES IN EDUCATION AND CREDITS		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9

701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
CORE ELECTIVES, CORE PRACTICALS AND CREDITS		
Theory Modules		
352 EE 01	Applied Physics	9
352 EE 02	Energy Physics	9
352 EE 03	Electronics Communication	9
352 EE 04	Laser and Spectroscopy	9
352 EE 05	Electrical Appliances	9
352 EE 06	Microprocessor and its Application	9
352 EE 07	C++ Programming	9
	Practical Modules	
352 PH 71	Physics Practical I	9
352 PH 72	Physics Practical II	9
352 PH 73	Physics Practical III	9
352 PH 74	Physics Practical IV	9
SECOND MAJOR (OPTION 1) : CHEMISTRY		
THEORY MODULES – CHEMISTRY		
352 CH 01	Analytical Chemistry	9
352 CH 02	Concepts in Inorganic Chemistry	9
352 CH 03	Hydrocarbons and Stereochemistry	9
352 CH 04	Organic Functional Groups I	9
352 CH 05	Main Group Elements and Solid State Chemistry	9
352 CH 06	Thermodynamics	9

352 CH 07	Electrochemistry	9
352 CH 08	Organic Functional Groups II	9
352 CH 09	Chemistry of Materials	9
352 CH 10	Industrial Chemistry	9
352 CH 11	Transition Elements and Nuclear Chemistry	9
352 EE 12	Phase Equilibria and Kinetics	9
352 EE 13	Polymer Chemistry	9
352 EE 14	Biochemistry	9
352 EE 15	Food Chemistry and Technology	9
PRACTICAL MODULES – CHEMISTRY		
352 CH 16	Inorganic Qualitative Analysis	9
352 CH 17	Organic Qualitative Analysis	9
352 CH 18	Volumetric Analysis and Inorganic Preparations	9
352 CH 19	Physical Chemistry Practical	9
SECOND MAJOR (OPTION 2) : COMPUTER SCIENCE		
THEORY MODULES – COMPUTER SCIENCE		
352 CS 01	Computer Organization and Architecture	9
352 CS 02	Data Structures and Algorithms	9
352 CS 03	Relational Database Management System	9
352 CS 04	Operating System	9
352 CS 05	Computer Graphics	9
352 CS 06	Visual Programming	9
352 CS 07	Object Oriented Programming	9
352 CS 08	Data Communication and Networking	9
352 CS 09	Computer Installation & Servicing	9

352 CS 10	Programming in Java	9
352 CS 11	Computer Network & Security	9
PRACTICAL MODULES – COMPUTER SCIENCE		
352 CS 16	Relational Database Management System and Operating System laboratory	9
352 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
352 CS 18	Programming in Java and Web Technology Laboratory	9
352 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
CHEMISTRY		
COURSE MODULES AND CREDITS: YEAR 1		
Trimester I (Year 1)		
800 LA 01	English	8
800 MA 02	Basic Mathematics	9
800 SC 03	Physics and Chemistry	9
800 SC 04	Biology	9
800 SS 05	Social Science	8
800 MA 11	Fundamental Mathematics I	9
800 PH 12	Basic Physics I	9
800 CH 13	Basic Chemistry I	9
800 BO 14	Basic Biology I	9
800 CS 15	Basic Computer Science I	9
800 MA 21	Fundamental Mathematics II	9
800 PH 22	Basic Physics II	9
800 CH 23	Basic Chemistry II	9
800 BO 24	Basic Biology II	9
800 CS 25	Basic Computer Science II	9

COURSE MODULES AND CREDITS: YEAR 2			
Semester I (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 31	General Studies I	**Compulsory**	6
800 LA 32	Basic Communication Skills I	**Compulsory**	9
800 CS 33	Computer Programming I	**Compulsory**	12
PART-II: (Any three modules shall be chosen from the given modules)			
800 MA 34	Advanced Mathematics I	The Combination shall be either PCM / PCB / CBM / PBM	12
800 SC 35	Advanced Physics I		12
800 CH 36	Advanced Chemistry I		12
800 BO 37	Advanced Biology I		12
PART-I: (Compulsory Modules)			
800 GS 41	General Studies II	**Compulsory**	6
800 LA 42	Basic Communication Skills II	**Compulsory**	9
800 CS 43	Computer Programming II	**Compulsory**	12
PART – II: (Three modules of the same combination as in semester III)			
800 MA 44	Advanced Mathematics II	The combination shall be the same as in Semester III	12
800 SC 45	Advanced Physics II		12
800 CH 46	Advanced Chemistry II		12
800 BO 47	Advanced Biology II		12
COURSE MODULES AND CREDITS: YEAR 3			
Semester III (Year 3)			
701 LA 51	Communication Skills		9
701 ED 52	Challenges in Education		9
701 ED 53	Educational Psychology I		12

701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
701 ED 61	Educational Technology	9
701 ED 62	Educational Psychology II	12
701 ED 63	Educational Management II	9
701 ED 64	Science Education	12
	Elective in Education I	9
701 CS 66	Modern Information System Lab	9
COURSE MODULES AND CREDITS : YEAR 4		
Semester V (Year 4)		
353 CH 71	Analytical Chemistry	9
353 CH 72	Concepts in Inorganic Chemistry	9
353 CH 73	Hydrocarbons and Stereochemistry	9
353 CH 74	Organic Functional Groups I	9
	Elective in Education II	9
353 CH 76	Inorganic Qualitative Analysis	9
353 CH 77	Organic Qualitative Analysis	9
701 IP 80	Teaching Practice	14
701 IP 80	Teaching practice	14
353 CH 81	Main Group Elements and Solid State Chemistry	9
353 CH 82	Thermodynamics	9
353 CH 83	Electrochemistry	9
	Second Major Module I	9
	Second Major Module II	9

353 CH 86	Volumetric analysis and Inorganic Preparations	9
	Allied Practical I (Second Major)	9
COURSE MODULES AND CREDITS : YEAR 5		
353 CH 91	Organic Functional Groups II	9
353 CH 92	Chemistry of Materials	9
353 CH 93	Industrial Chemistry	9
	Second Major Module III	9
	Second Major Module IV	9
353 CH 96	Physical Chemistry Practical	9
	Allied Practical II (Second Major)	9
353 CH 100	Teaching Practice	14
353 CH 100	Teaching Practice	14
353 MG 101	Environmental Studies	9
353 CH 102	Transition Elements and Nuclear Chemistry	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
353 PJ 100	Project	21
ELECTIVE MODULES IN EDUCATION		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9

701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
CORE ELECTIVES,CORE PRACTICALS AND CREDITS		
353 EE 01	Phase Equilibria and kinetics	9
353 EE 02	Polymer Chemistry	9
353 EE 03	Biochemistry	9
353 EE 04	Food chemistry and Technology	9
	Practical Modules	
353 CH 76	Inorganic Qualitative Analysis	9
353 CH 77	Organic Qualitative Analysis	9
353 CH 86	Volumetric analysis and Inorganic Preparations	9
353 CH 96	Physical Chemistry Practical	9
SECOND MAJOR (OPTION 1): BIOLOGY		
Biology Theory Modules		
353 BI 01	Algae and Bryophytes	9
353 BI 02	Fungi, Plant pathology and Lichens	9
353 BI 03	Invertebrata	9
353 BI 04	Chordata	9
353 BI 05	Pteridophytes, Gymnosperm and Paleobotany	9

353 BI 06	Developmental Biology and Immunology	9
353 BI 07	Cell and Molecular Biology	9
353 BI 08	Plant Physiology	9
353 BI 09	Microbiology and Biochemistry	9
353 BI 10	Animal Physiology	9
353 BI 11	Genetics and Biotechnology	9
353 BI 12	Taxonomy of Angiosperms	9
353 BI 13	Nutrition and Dietetics	9
Biology Practical Modules		
353 BI 20	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
353 BI 21	Invertebrata and Chordata Lab	9
353 BI 22	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and Embryology Lab	9
353 BI 23	Plant and Animal Physiology Lab	9
SECOND MAJOR (OPTION-2): PHYSICS		
THEORY MODULES		
353 PH 01	Mechanics	9
353 PH 02	Heat and Thermo Dynamics	9
353 PH 03	Properties of Matter and Sound	9
353 PH 04	Optics	9
353 PH 05	Electricity and Magnetism	9
353 PH 06	Emerging Physics	9
353 PH 07	Basic Electronics	9
353 PH 08	Atomic Physics	9
353 PH 09	Nuclear Physics	9
353 PH 10	Quantum Mechanics and Relativity	9

353 PH 11	Solid State Physics	9
PRACTICAL MODULES		
353 PH 16	Physics Practical I	9
353 PH 17	Physics Practical II	9
353 PH 18	Physics Practical III	9
353 PH 19	Physics Practical IV	9
MATHEMATICS		
COURSE MODULES AND CREDITS: YEAR 1		
Trimester I (Year 1)		
800 LA 01	English	8
800 MA 02	Basic Mathematics	9
800 SC 03	Physics and Chemistry	9
800 SC 04	Biology	9
800 SS 05	Social Science	8
Trimester II (Year 1)		
800 MA 11	Fundamental Mathematics I	9
800 PH 12	Basic Physics I	9
800 CH 13	Basic Chemistry I	9
800 BO 14	Basic Biology I	9
800 CS 15	Basic Computer Science I	9
800 MA 21	Fundamental Mathematics II	9
800 PH 22	Basic Physics II	9
800 CH 23	Basic Chemistry II	9
800 BO 24	Basic Biology II	9
800 CS 25	Basic Computer Science II	9

COURSE MODULES AND CREDITS: YEAR 2			
Semester I (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 31	General Studies I	**Compulsory**	6
800 LA 32	Basic Communication Skills I	**Compulsory**	9
800 CS 33	Computer Programming I	**Compulsory**	12
PART-II: (Any three modules shall be chosen from the given modules)			
800 MA 34	Advanced Mathematics I	The Combination shall be either PCM / PCB / CBM / PBM	12
800 SC 35	Advanced Physics I		12
800 CH 36	Advanced Chemistry I		12
800 BO 37	Advanced Biology I		12
Semester II (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 41	General Studies II	**Compulsory**	6
800 LA 42	Basic Communication Skills II	**Compulsory**	9
800 CS 43	Computer Programming II	**Compulsory**	12
PART – II: (Three modules of the same combination as in semester III)			
800 MA 44	Advanced Mathematics II	The combination shall be the same as in Semester III	12
800 SC 45	Advanced Physics II		12
800 CH 46	Advanced Chemistry II		12
800 BO 47	Advanced Biology II		12
COURSE MODULES AND CREDITS: YEAR 3			
Semester III (Year 3)			
701 LA 51	Communication Skills		9
701 ED 52	Challenges in Education		9

701 ED 53	Educational Psychology I	12
701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
Semester IV (Year 3)		
701 ED 61	Educational Technology	9
701 ED 62	Educational Psychology II	12
701 ED 63	Educational Management II	9
701 ED 64	Science Education	12
	Elective in Education I	9
701 CS 66	Modern Information System Lab	9
COURSE MODULES AND CREDITS: YEAR 4		
Semester V (Year 4)		
350 MA 71	Introductory Algebra	9
350 MA 72	Trigonometry	9
350 MA 73	Calculus	9
	Elective in Education II	9
	Second Major Module I	9
	Allied Practical I (Second Major)	9
350 TP 80	Teaching Practice	14
Semester VI (Year 4)		
701 TP 80	Teaching practice	14
350 MA 81	Analytical Geometry	9
350 MA 82	Differential equations and its Applications	9
350 MA 83	Discrete Mathematics	9

	Core Elective I	9
	Second Major Module II	9
	Allied Practical II (Second major)	9
COURSE MODULES AND CREDITS: YEAR 5		
Semester VII (Year 5)		
350 MA 91	Vector analysis and Fourier Analysis	12
350 MA 92	Linear Programming	9
350 MA 93	Modern Algebra	9
	Second Major Module III	9
	Second Major Module IV	9
	Allied Practical III (Second Major)	9
350 TP 100	Teaching Practice	14
Semester VIII (Year 5)		
350 TP 100	Teaching Practice	14
350 MG 101	Environmental Studies	9
350 MA 102	Real Analysis	9
350 MA 103	Complex Analysis	9
	Core Elective II	9
	Core Elective III	9
350 PJ 100	Project	21
CORE ELECTIVE MODULES AND CREDITS		
350 EE 01	Operation Research	9
350 EE 02	Numerical Methods	9
350 EE 03	Quantitative Techniques	9
350 EE 04	Probability Theory	9

350 EE 05	Graph Theory	9
ELECTIVE MODULES IN EDUCATION AND CREDITS		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
SECOND MAJOR (OPTION-1): PHYSICS		
THEORY MODULES		
350 PH 01	Mechanics	9
350 PH 02	Heat and Thermo Dynamics	9
350 PH 03	Properties of Matter and Sound	9
350 PH 04	Optics	9
350 PH 05	Electricity and Magnetism	9
350 PH 06	Emerging Physics	9
350 PH 07	Basic Electronics	9

350 PH 08	Atomic Physics	9
350 PH 09	Nuclear Physics	9
350 PH 10	Quantum Mechanics and Relativity	9
350 PH 11	Solid State Physics	9
350 PH 16	Physics Practical I	9
350 PH 17	Physics Practical II	9
350 PH 18	Physics Practical III	9
350 PH 19	Physics Practical IV	9
SECOND MAJOR (OPTION-2) : COMPUTER SCIENCE		
THEORY MODULES		
350 CS 01	Computer Organization and Architecture	9
350 CS 02	Data Structures and Algorithms	9
350 CS 03	Relational Database Management System	9
350 CS 04	Operating System	9
350 CS 05	Computer Graphics	9
350 CS 06	Visual Programming	9
350 CS 07	Object Oriented Programming	9
350 CS 08	Data Communication and Networking	9
350 CS 09	Computer Installation & Servicing	9
350 CS 10	Programming in Java	9
350 CS 11	Computer Network & Security	9

PRACTICAL MODULES		
350 CS 16	Relational Database Management System and Operating System laboratory	9
350 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
350 CS 18	Programming in Java and Web Technology Laboratory	9
350 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
BIOLOGY		
COURSE MODULES AND CREDITS: YEAR 1		
Trimester I (Year 1)		
800 LA 01	English	8
800 MA 02	Basic Mathematics	9
800 SC 03	Physics and Chemistry	9
800 SC 04	Biology	9
800 SS 05	Social Science	8
Trimester II (Year 1)		
800 MA 11	Fundamental Mathematics I	9
800 PH 12	Basic Physics I	9
800 CH 13	Basic Chemistry I	9
800 BO 14	Basic Biology I	9
800 CS 15	Basic Computer Science I	9
800 MA 21	Fundamental Mathematics II	9
800 PH 22	Basic Physics II	9
800 CH 23	Basic Chemistry II	9
800 BO 24	Basic Biology II	9
800 CS 25	Basic Computer Science II	9

COURSE MODULES AND CREDITS: YEAR 2			
Semester I (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 31	General Studies I	**Compulsory**	6
800 LA 32	Basic Communication Skills I	**Compulsory**	9
800 CS 33	Computer Programming I	**Compulsory**	12
800 MA 34	Advanced Mathematics I	The Combination shall be either PCM / PCB / CBM / PBM	12
800 SC 35	Advanced Physics I		12
800 CH 36	Advanced Chemistry I		12
800 BO 37	Advanced Biology I		12
Semester II (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 41	General Studies II	**Compulsory**	6
800 LA 42	Basic Communication Skills II	**Compulsory**	9
800 CS 43	Computer Programming II	**Compulsory**	12
PART – II: (Three modules of the same combination as in semester III)			
800 MA 44	Advanced Mathematics II	The combination shall be the same as in Semester III	12
800 SC 45	Advanced Physics II		12
800 CH 46	Advanced Chemistry II		12
800 BO 47	Advanced Biology II		12
COURSE MODULES AND CREDITS: YEAR 3			
Semester III (Year 3)			
701 LA 51	Communication Skills		9
701 ED 52	Challenges in Education		9
701 ED 53	Educational Psychology I		12

701 ED 54	Educational Management I	9
701 ED 55	Methods of Teaching Mathematics	12
701 ED 56	Computer Science Education	9
Semester IV (Year 3)		
701 ED 61	Educational Technology	9
701 ED 62	Educational Psychology II	12
701 ED 63	Educational Management II	9
701 ED 64	Science Education	12
	Elective in Education I	9
701 CS 66	Modern Information System Lab	9
COURSE MODULES AND CREDITS: YEAR – 4		
Semester V (Year 4)		
354 BI 71	Algae and Bryophytes	9
354 BI 72	Fungi, Plant pathology and Lichens	9
354 BI 73	Invertebrata	9
354 BI 74	Chordata	9
	Elective in Education II	9
354 BI 76	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
354 BI 77	Invertebrata and Chordata Lab	9
354 CS 78	Modern Information System Lab	9
701 TP 80	Teaching Practice	14
Semester VI (Year 5)		
701 TP 80	Teaching practice	14
354 BI 81	Pteridophytes, Gymnosperm and Paleobotany	9
354 BI 82	Developmental Biology and Immunology	9

354 BI 83	Cell and Molecular Biology	9
	Second Major Module I	9
	Second Major Module II	9
354 BI 86	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and Embryology Lab	9
354 BI 87	Allied Practical I (Second Major)	9
354 CS 88	Computer Programming Lab	9
COURSE MODULES AND CREDITS: YEAR 5		
Semester VII (Year 5)		
354 BI 91	Plant Physiology	9
354 BI 92	Microbiology and Biochemistry	9
354 BI 93	Animal Physiology	9
	Second Major module III	9
	Second Major Module IV	9
354 BI 96	Plant and Animal Physiology Lab	9
	Allied Practical II (Second Major)	9
354 TP 100	Teaching Practice	14
Semester VIII (Year 5)		
354 TP 100	Teaching Practice	14
701 MG 101	Environmental Studies	9
354 BO 102	Genetics and Biotechnology	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
701 PJ 100	Project	21

ELECTIVES IN EDUCATION AND CREDITS		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9
CORE ELECTIVE MODULES AND CREDITS		
354 EE 01	Horticulture	9
354 EE 02	Forestry	9
354 EE 03	Organic farming	9
354 EE 04	Medicinal Plants	9
354 EE 05	Food Preservation	9
354 EE 06	Bioinformatics	9
354 EE 07	Aquaculture	9
354 EE 08	Apiculture	9
354 EE 09	Nutrition and Dietetics	9

354 EE 10	Phytochemistry	9
SECOND MAJOR (OPTION 1):CHEMISTRY		
THEORY MODULES – CHEMISTRY		
354 CH 01	Analytical Chemistry	9
354 CH 02	Concepts in Inorganic Chemistry	9
354 CH 03	Hydrocarbons and Stereochemistry	9
354 CH 04	Organic Functional Groups I	9
354 CH 05	Main Group Elements and Solid State Chemistry	9
354 CH 06	Thermodynamics	9
354 CH 07	Electrochemistry	9
354 CH 08	Organic Functional Groups II	9
354 CH 09	Chemistry of Materials	9
354 CH 10	Industrial Chemistry	9
354 CH 11	Transition Elements and Nuclear Chemistry	9
354 CH12	Phase Equilibria and Kinetics	9
354 CH13	Polymer Chemistry	9
354 CH 14	Biochemistry	9
354 CH15	Food Chemistry and Technology	9
354 CH16	Inorganic Qualitative Analysis	9
354 CH17	Organic Qualitative Analysis	9
354 CH18	Volumetric Analysis and Inorganic Preparations	9
354 CH19	Physical Chemistry Practical	9
SECOND MAJOR (OPTION 2) :COMPUTER SCIENCE		
THEORY MODULES – COMPUTER SCIENCE		
354 CS 01	Computer Organization and Architecture	9

354 CS 02	Data Structures and Algorithms	9
354 CS 03	Relational Database Management System	9
354 CS 04	Operating System	9
354 CS 05	Computer Graphics	9
354 CS 06	Visual Programming	9
354 CS 07	Object Oriented Programming	9
354 CS 08	Data Communication and Networking	9
354 CS 09	Computer Installation & Servicing	9
354 CS 10	Programming in Java	9
354 CS 11	Computer Network & Security	9
354 CS 16	Relational Database Management System and Operating System laboratory	9
354 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
354 CS 18	Programming in Java and Web Technology Laboratory	9
354 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
COMPUTER SCIENCE		
COURSE MODULES AND CREDITS: YEAR 1		
Trimester I (Year 1)		
800 LA 01	English	8
800 MA 02	Basic Mathematics	9
800 SC 03	Physics and Chemistry	9
800 SC 04	Biology	9
800 SS 05	Social Science	8
800 MA 11	Fundamental Mathematics I	9
800 PH 12	Basic Physics I	9

800 CH 13	Basic Chemistry I		9
800 BO 14	Basic Biology I		9
800 CS 15	Basic Computer Science I		9
Trimester III (Year 1)			
800 MA 21	Fundamental Mathematics II		9
800 PH 22	Basic Physics II		9
800 CH 23	Basic Chemistry II		9
800 BO 24	Basic Biology II		9
800 CS 25	Basic Computer Science II		9
COURSE MODULES AND CREDITS: YEAR 2			
Semester I (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 31	General Studies I	**Compulsory**	6
800 LA 32	Basic Communication Skills I	**Compulsory**	9
800 CS 33	Computer Programming I	**Compulsory**	12
PART-II: (Any three modules shall be chosen from the given modules)			
800 MA 34	Advanced Mathematics I	The Combination shall be either PCM / PCB / CBM / PBM	12
800 SC 35	Advanced Physics I		12
800 CH 36	Advanced Chemistry I		12
800 BO 37	Advanced Biology I		12
Semester II (Year 2)			
PART-I: (Compulsory Modules)			
800 GS 41	General Studies II	**Compulsory**	6
800 LA 42	Basic Communication Skills II	**Compulsory**	9
800 CS 43	Computer Programming II	**Compulsory**	12

PART – II: (Three modules of the same combination as in semester III)			
800 MA 44	Advanced Mathematics II	The combination shall be the same as in Semester III	12
800 SC 45	Advanced Physics II		12
800 CH 46	Advanced Chemistry II		12
800 BO 47	Advanced Biology II		12
COURSE MODULES AND CREDITS: YEAR 3			
Semester III (Year 3)			
701 LA 51	Communication Skills		9
701 ED 52	Challenges in Education		9
701 ED 53	Educational Psychology I		12
701 ED 54	Educational Management I		9
701 ED 55	Methods of Teaching Mathematics		12
701 ED 56	Computer Science Education		9
Semester IV (Year 3)			
701 ED 61	Educational Technology		9
701 ED 62	Educational Psychology II		12
701 ED 63	Educational Management II		9
701 ED 64	Science Education		12
	Elective in Education I		9
701 CS 66	Modern Information System Lab		9
COURSE MODULES AND CREDITS: YEAR 4			
Semester V (Year 4)			
351 CS 71	Operating System		9
351 CS 72	Visual Programming		9
351 CS 73	Object Oriented programming		9

351 CS 74	Relational Database Management System	9
	Elective in Education II	9
351 CS 76	Relational Database Management System and Operating System Laboratory	9
351 CS 77	Object Oriented programming and Visual Programming Laboratory	9
701 IP 80	Teaching Practice	14
Semester VI (Year 4)		
701 IP 80	Teaching practice	14
351 CS 81	Data Structures and Algorithms	9
351 CS 82	Computer Organization and Architecture	9
351 CS 83	Programming in Java	9
	Second Major Module I	9
	Second Major Module II	9
351 CS 86	Programming in Java and Web Technology Laboratory	9
	Allied Practical I (Second Major)	9
COURSE MODULES AND CREDITS : SEMESTER VII – YEAR 5		
Semester VII (Year 5)		
351 CS 91	Computer Installation and Servicing	9
351 CS 92	Computer Network & Security	9
351 CS 93	Computer Graphics	9
	Second Major Module III	9
	Second Major Module IV	9
351 CS 96	Computer Installation & Servicing and Computer Network and Security Laboratory	9
	Allied Practical II (Second Major)	9
351 TP 80	Teaching Practice	14

Semester VIII (Year 5)		
351 TP 80	Teaching Practice	14
351MG 101	Environmental Science	9
351 CS 102	Data Communication and Networking	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
351 PJ 100	Project	21
ELECTIVE COURSE MODULES IN EDUCATION		
701 EE 01	Peace Education	9
701 EE 02	Environmental Education	9
701 EE 03	Educational Guidance and Counselling	9
701 EE 04	Curriculum Development	9
701 EE 05	Physical Education	9
701 EE 06	Art Education	9
701 EE 07	Health Education	9
701 EE 08	Work Experience	9
701 EE 09	Education for Children with Special Needs	9
701 EE 10	Elementary Education	9
701 EE 11	Population Education	9
701 EE 12	Value Education & Education for Human Rights	9
701 EE 13	Teaching of English	9
701 EE 14	Teaching of social Science	9

CORE ELECTIVE MODULES AND CREDITS		
Computer Science Elective Modules		
351 EE 01	Software Engineering	9
351 EE 02	Web Technology	9
351 EE 03	Financial Accounting	9
351 EE 04	Management Information System	9
351 EE 05	System Analysis and Design	9
SECOND MAJOR (OPTION 1) : MATHEMATICS		
THEORY MODULES (MATHEMATICS)		
351 MA 01	Introductory Algebra	9
351 MA 02	Trigonometry	9
351 MA 03	Calculus	9
351 MA 04	Analytical Geometry	9
351 MA 05	Differential Equations and its Applications	9
351 MA 06	Discrete Mathematics	9
351 MA 07	Vector Analysis and Fourier Analysis	9
351 MA 08	Linear Programming	9
351 MA 09	Modern Algebra	9
351 MA 10	Operation Research	9
351 MA 11	Numerical Methods	9
351 MA 12	Quantitative Techniques	9
351 MA 13	Probability Theory	9
351 MA 14	Graph Theory	9

SECOND MAJOR (OPTION 2): BIOLOGY		
Biology Theory Modules		
351BI 01	Algae and Bryophytes	9
351BI 02	Fungi, Plant pathology and Lichens	9
351BI 03	Invertebrata	9
351BI 04	Chordata	9
351BI 05	Pteridophytes, Gymnosperm and Paleobotany	9
351BI 06	Developmental Biology and Immunology	9
351BI 07	Cell and Molecular Biology	9
351BI 08	Plant Physiology	9
351BI 09	Microbiology and Biochemistry	9
351BI 10	Animal Physiology	9
351BI 11	Genetics and Biotechnology	9
351BI 12	Taxonomy of Angiosperms	9
351BI 13	Nutrition and Dietetics	9
Biology Practical Modules		
351BI 20	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
351BI 21	Invertebrata and Chordata Lab	9
351BI 22	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and Embryology Lab	9
351BI 23	Plant and Animal Physiology Lab	9

2014 REGULATION

PHYSICS		
COURSE MODULES AND CREDITS: YEAR – 1		
Semester I		
Module Code	**Module Name**	**Credits**
352 PH 51	Mechanics	9
352 PH 52	Heat and Thermodynamics	9
352 PH 53	Properties of matter and Sound	9
352 PH 54	Optics	9
352 EE 01	Elective in Education I (Challenges in Education)	9
352 PH 56	Physics Practical I	9
352 PH 57	Physics Practical II	9
352 CS 58	Modern Information System Lab	9
Semester II		
352 PH 61	Electricity and Magnetism	9
352 PH 62	Emerging Physics	9
352 PH 63	Basic Electronics	9
	Second Major Module I	9
	Second Major Module II	9
352 PH 66	Physics Practical III	9
	Allied Practical I (Second Major)	9
352 CS 68	Computer Programming Lab	9
COURSE MODULES AND CREDITS: YEAR 2		
Semester III		
352 LA 71	Communication Skills	9

352 ED 72	Philosophy of Education	9
352 ED 73	Educational Management	9
352 ED 74	Science Education	12
352 ED 75	Mathematics Education	12
352 ED 76	Computer Science Education	9
352 TP 80	Teaching Practice	10
Semester IV		
352 TP 80	Teaching Practice	10
352 ED 81	Sociology of Education	9
352 ED 82	Educational Technology	9
352 ED 83	Educational Psychology	12
352 ED 84	Educational Guidance and Counselling	9
352 ED 85	Curriculum Development	9
	Elective in Education – II	9
Course Modules and Credits: Year 3		
Semester V		
352 PH 91	Atomic Physics	9
352 PH 92	Nuclear Physics	9
352 PH 93	Quantum Mechanics and Relativity	9
	Second Major Module III	9
	Second Major Module IV	9
352 PH 96	Physics Practical IV	9
	Allied Practical II (Second Major)	9
352 TP 90	Teaching Practice	10

	Semester VI	
352 TP 90	Teaching Practice	10
352 MG 101	Environmental Studies	9
352 PH 102	Solid State Physics	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
352 PJ 100	Project	18
ELECTIVE MODULES IN EDUCATION AND CREDITS		
352 EE 01	Challenges in Education	9
352 EE 02	Peace Education	9
352 EE 03	Environmental Education	9
352 EE 04	Physical Education	9
352 EE 05	Art Education	9
352 EE 06	Health Education	9
352 EE 07	Education for Children with Special Needs	9
352 EE 08	Elementary Education	9
352 EE 09	Population Education	9
352 EE 10	Value Education & Education for Human Rights	9
352 EE 11	Teaching of English	9
352 EE 12	Teaching of social Science	9
CORE ELECTIVES, CORE PRACTICALS AND CREDITS		
352 CE 01	Applied Physics	9
352 CE 02	Energy Physics	9
352 CE 03	Electronics Communication	9

352 CE 04	Laser and Spectroscopy	9
352 CE 05	Electrical Appliances	9
352 CE 06	Microprocessor and its Application	9
352 CE 07	C++ Programming	9
	Practical Modules	
352 PH 56	Physics Practical I	9
352 PH 57	Physics Practical II	9
352 PH 66	Physics Practical III	9
352 PH 96	Physics Practical IV	9
SECOND MAJOR (OPTION-1): CHEMISTRY		
THEORY MODULES		
352 CH 01	Analytical Chemistry	9
352 CH 02	Concepts in Inorganic Chemistry	9
352 CH 03	Hydrocarbons and Stereochemistry	9
352 CH 04	Organic Functional Groups I	9
352 CH 05	Main Group Elements and Solid State Chemistry	9
352 CH 06	Thermodynamics	9
352 CH 07	Electrochemistry	9
352 CH 08	Organic Functional Groups II	9
352 CH 09	Chemistry of Materials	9
352 CH 10	Industrial Chemistry	9
352 CH 11	Transition Elements and Nuclear Chemistry	9
352 CH 12	Phase Equilibria and Kinetics	9
352 CH 13	Polymer Chemistry	9
352 CH 14	Biochemistry	9

352 CH 15	Food Chemistry and Technology	9
PRACTICAL MODULES		
352 CH 16	Inorganic Qualitative Analysis	9
352 CH 17	Organic Qualitative Analysis	9
352 CH 18	Volumetric Analysis and Inorganic Preparations	9
352 CH 19	Physical Chemistry Practical	9
SECOND MAJOR (OPTION 2): COMPUTER SCIENCE		
THEORY MODULES – COMPUTER SCIENCE		
352 CS 01	Computer Organization and Architecture	9
352 CS 02	Data Structures and Algorithms	9
352 CS 03	Relational Database Management System	9
352 CS 04	Operating System	9
352 CS 05	Computer Graphics	9
352 CS 06	Visual Programming	9
352 CS 07	Object Oriented Programming	9
352 CS 08	Data Communication and Networking	9
352 CS 09	Computer Installation & Servicing	9
352 CS 10	Programming in Java	9
352 CS 11	Computer Network & Security	9
PRACTICAL MODULES – COMPUTER SCIENCE		
352 CS 16	Relational Database Management System and Operating System laboratory	9
352 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
352 CS 18	Programming in Java and Web Technology Laboratory	9
352 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9

SECOND MAJOR (OPTION 3): MATHEMATICS		
THEORY MODULES – MATHEMATICS		
352 MA 01	Introductory Algebra	9
352 MA 02	Trigonometry	9
352 MA 03	Calculus	9
352 MA 04	Analytical Geometry	9
352 MA 05	Differential Equations and its Applications	9
352 MA 06	Discrete Mathematics	9
352 MA 07	Vector Analysis and Fourier Analysis	9
352 MA 08	Linear Programming	9
352 MA 09	Modern Algebra	9
352 MA 10	Operation Research	9
352 MA 11	Numerical Methods	9
352 MA 12	Quantitative Techniques	9
352 MA 13	Probability Theory	9
352 MA 14	Graph Theory	9
CHEMISTRY		
COURSE MODULES AND CREDITS: YEAR – 1		
Semester I		
Module Code	Module Name	Credits
353 CH 51	Analytical Chemistry	9
353 CH 52	Concepts in Inorganic Chemistry	9
353 CH 53	Hydrocarbons and Stereochemistry	9
353 CH 54	Organic Functional Groups I	9
353 EE 01	Elective in Education I (Challenges in Education)	9

353 CH 56	Inorganic Qualitative Analysis	9
353 CH 57	Organic Qualitative Analysis	9
353 CS 58	Modern Information System Lab	9
Semester II		
353 CH 61	Main Group Elements and Solid State Chemistry	9
353 CH 62	Thermodynamics	9
353 CH 63	Electrochemistry	9
	Second Major Module I	9
	Second Major Module II	9
353 CH 66	Volumetric analysis and Inorganic Preparations	9
	Allied Practical I (Second Major)	9
353 CS 68	Computer Programming Lab	9
COURSE MODULES AND CREDITS: YEAR 2		
Semester III		
353 LA 71	Communication Skills	9
353 ED 72	Philosophy of Education	9
353 ED 73	Educational Management	9
353 ED 74	Science Education	12
353 ED 75	Mathematics Education	12
353 ED 76	Computer Science Education	9
353 TP 80	Teaching Practice	10
Semester IV		
353 TP 80	Teaching Practice	10
353 ED 81	Sociology of Education	9
353 ED 82	Educational Technology	9

353 ED 83	Educational Psychology	12
353 ED 84	Educational Guidance and Counselling	9
353 ED 85	Curriculum Development	9
	Elective in Education – II	9
Course Modules and Credits: Year 3		
Semester V		
353 CH 91	Organic Functional Groups II	9
353 CH 92	Chemistry of Materials	9
353 CH 93	Industrial Chemistry	9
	Second Major Module III	9
	Second Major Module IV	9
353 CH 96	Physical Chemistry Practical	9
	Allied Practical II (Second Major)	9
353 TP 90	Teaching Practice	10
Semester VI		
353 TP 90	Teaching Practice	10
353 MG 101	Environmental Studies	9
353 CH 102	Transition Elements and Nuclear Chemistry	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
353 PJ 100	Project	18
ELECTIVE MODULES IN EDUCATION AND CREDITS		
353 EE 01	Challenges in Education	9
353 EE 02	Peace Education	9

353 EE 03	Environmental Education	9
353 EE 04	Physical Education	9
353 EE 05	Art Education	9
353 EE 06	Health Education	9
353 EE 07	Education for Children with Special Needs	9
353 EE 08	Elementary Education	9
353 EE 09	Population Education	9
353 EE 10	Value Education & Education for Human Rights	9
353 EE 11	Teaching of English	9
353 EE 12	Teaching of social Science	9
CORE ELECTIVES, CORE PRACTICALS AND CREDITS		
353 CE 01	Phase Equilibria and kinetics	9
353 CE 02	Polymer Chemistry	9
353 CE 03	Biochemistry	9
353 CE 04	Food chemistry and Technology	9
Practical Modules		
353 CE 56	Inorganic Qualitative Analysis	9
353 CE 57	Organic Qualitative Analysis	9
353 CE 66	Volumetric analysis and Inorganic Preparations	9
353 CE 96	Physical Chemistry Practical	9
SECOND MAJOR (OPTION-1): BIOLOGY		
BIOLOGY THEORY MODULES		
353 BI 01	Algae and Bryophytes	9
353 BI 02	Fungi, Plant pathology and Lichens	9
353 BI 03	Invertebrata	9

353 BI 04	Chordata	9
353 BI 05	Pteridophytes, Gymnosperm and Paleobotany	9
353 BI 06	Developmental Biology and Immunology	9
353 BI 07	Cell and Molecular Biology	9
353 BI 08	Plant Physiology	9
353 BI 09	Microbiology and Biochemistry	9
353 BI 10	Animal Physiology	9
353 BI 11	Genetics and Biotechnology	9
353 BI 12	Taxonomy of Angiosperms	9
353 BI 13	Nutrition and Dietetics	9
BIOLOGY PRACTICAL MODULES		
353 BI 16	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
353 BI 17	Invertebrata and Chordata Lab	9
353 BI 18	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and Embryology Lab	9
353 BI 19	Plant and Animal Physiology Lab	9
SECOND MAJOR (OPTION 2): PHYSICS		
THEORY MODULES – PHYSICS		
353 PH 01	Mechanics	9
353 PH 02	Heat and Thermodynamics	9
353 PH 03	Properties of Matter and Sound	9
353 PH 04	Optics	9
353 PH 05	Electricity and Magnetism	9
353 PH 06	Emerging Physics	9
353 PH 07	Basic Electronics	9
353 PH 08	Atomic Physics	9

353 PH 09	Nuclear Physics	9
353 PH 10	Quantum Mechanics and Relativity	9
353 PH 11	Solid State Physics	9
PRACTICAL MODULES – PHYSICS		
353 PH 16	Physics Practical I	9
353 PH 17	Physics Practical II	9
353 PH 18	Physics Practical III	9
353 PH 19	Physics Practical IV	9
SECOND MAJOR (OPTION 3): COMPUTER SCIENCE		
THEORY MODULES – COMPUTER SCIENCE		
353 CS 01	Computer Organization and Architecture	9
353 CS 02	Data Structures and Algorithms	9
353 CS 03	Relational Database Management System	9
353 CS 04	Operating System	9
353 CS 05	Computer Graphics	9
353 CS 06	Visual Programming	9
353 CS 07	Object Oriented Programming	9
353 CS 08	Data Communication and Networking	9
353 CS 09	Computer Installation & Servicing	9
353 CS 10	Programming in Java	9
353 CS 11	Computer Network & Security	9
PRACTICAL MODULES – COMPUTER SCIENCE		
353 CS 16	Relational Database Management System and Operating System laboratory	9
353 CS 17	Object Oriented Programming and Visual Programming Laboratory	9

353 CS 18	Programming in Java and Web Technology Laboratory	9
353 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
MATHEMATICS		
COURSE MODULES AND CREDITS: YEAR – 1		
Semester I		
Module Code	Module Name	Credits
350 MA 51	Introductory Algebra	9
350 MA 52	Trigonometry	9
350 MA 53	Calculus	9
350 CE 02	Core Elective I (Numerical Methods)	9
350 EE 01	Elective in Education I (Challenges in Education)	9
350 CS 56	Modern Information System Lab	9
Semester II		
350 MA 61	Analytical Geometry	9
350 MA 62	Differential Equations and Applications	12
350 MA 63	Discrete Mathematics	9
	Second Major Module I	9
	Second Major Module II	9
	Allied Practical I (Second Major)	9
350 CS 67	Computer Programming Lab	9
COURSE MODULES AND CREDITS: YEAR 2		
Semester III		
350 LA 71	Communication Skills	9
350 ED 72	Philosophy of Education	9

350 ED 73	Educational Management	9
350 ED 74	Science Education	12
350 ED 75	Mathematics Education	12
350 ED 76	Computer Science Education	9
350 TP 80	Teaching Practice	10
Semester IV		
350 TP 80	Teaching Practice	10
350 ED 81	Sociology of Education	9
350 ED 82	Educational Technology	9
350 ED 83	Educational Psychology	12
350 ED 84	Educational Guidance and Counselling	9
350 ED 85	Curriculum Development	9
	Elective in Education – II	9
Course Modules and Credits: Year 3		
Semester V		
350 MA 91	Vector Analysis and Fourier Analysis	9
350 MA 92	Linear Programming	9
350 MA 93	Modern Algebra	9
	Second Major Module III	9
	Second Major Module IV	9
	Allied Practical II (Second Major)	9
350 TP 90	Teaching Practice	10
Semester VI		
350 TP 90	Teaching Practice	10
350 MG 101	Environmental Studies	9

350 MA 102	Real Analysis	9
350 MA 103	Complex Analysis	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
350 PJ 100	Project	18
ELECTIVE MODULES IN EDUCATION AND CREDITS		
350 EE 01	Challenges in Education	9
350 EE 02	Peace Education	9
350 EE 03	Environmental Education	9
350 EE 04	Physical Education	9
350 EE 05	Art Education	9
350 EE 06	Health Education	9
350 EE 07	Education for Children with Special Needs	9
350 EE 08	Elementary Education	9
350 EE 09	Population Education	9
350 EE 10	Value Education & Education for Human Rights	9
350 EE 11	Teaching of English	9
350 EE 12	Teaching of social Science	9
CORE ELECTIVES, CORE PRACTICALS AND CREDITS		
350 CE 01	Operation Research	9
350 CE 02	Numerical Methods	9
350 CE 03	Quantitative Techniques	9
350 CE 04	Probability Theory	9
350 CE 05	Graph Theory	9

SECOND MAJOR (OPTION 1): PHYSICS		
THEORY MODULES – PHYSICS		
350 PH 01	Mechanics	9
350 PH 02	Heat and Thermodynamics	9
350 PH 03	Properties of Matter and Sound	9
350 PH 04	Optics	9
350 PH 05	Electricity and Magnetism	9
350 PH 06	Emerging Physics	9
350 PH 07	Basic Electronics	9
350 PH 08	Atomic Physics	9
350 PH 09	Nuclear Physics	9
350 PH 10	Quantum Mechanics and Relativity	9
350 PH 11	Solid State Physics	9
PRACTICAL MODULES – PHYSICS		
350 PH 16	Physics Practical I	9
350 PH 17	Physics Practical II	9
350 PH 18	Physics Practical III	9
350 PH 19	Physics Practical IV	9
SECOND MAJOR (OPTION 2): COMPUTER SCIENCE		
THEORY MODULES – COMPUTER SCIENCE		
350 CS 01	Computer Organization and Architecture	9
350 CS 02	Data Structures and Algorithms	9
350 CS 03	Relational Database Management System	9
350 CS 04	Operating System	9
350 CS 05	Computer Graphics	9

350 CS 06	Visual Programming	9
350 CS 07	Object Oriented Programming	9
350 CS 08	Data Communication and Networking	9
350 CS 09	Computer Installation & Servicing	9
350 CS 10	Programming in Java	9
350 CS 11	Computer Network & Security	9
PRACTICAL MODULES – COMPUTER SCIENCE		
350 CS 16	Relational Database Management System and Operating System laboratory	9
350 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
350 CS 18	Programming in Java and Web Technology Laboratory	9
350 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
SECOND MAJOR (OPTION-3): CHEMISTRY		
THEORY MODULES		
350 CH 01	Analytical Chemistry	9
350 CH 02	Concepts in Inorganic Chemistry	9
350 CH 03	Hydrocarbons and Stereochemistry	9
350 CH 04	Organic Functional Groups I	9
350 CH 05	Main Group Elements and Solid State Chemistry	9
350 CH 06	Thermodynamics	9
350 CH 07	Electrochemistry	9
350 CH 08	Organic Functional Groups II	9
350 CH 09	Chemistry of Materials	9
350 CH 10	Industrial Chemistry	9
350 CH 11	Transition Elements and Nuclear Chemistry	9

350 CH 12	Phase Equilibria and Kinetics	9
350 CH 13	Polymer Chemistry	9
350 CH 14	Biochemistry	9
350 CH 15	Food Chemistry and Technology	9
PRACTICAL MODULES		
350 CH 16	Inorganic Qualitative Analysis	9
350 CH 17	Organic Qualitative Analysis	9
350 CH 18	Volumetric Analysis and Inorganic Preparations	9
350 CH 19	Physical Chemistry Practical	9
BIOLOGY		
COURSE MODULES AND CREDITS: YEAR – 1		
Semester I		
354 BI 51	Algae and Bryophytes	9
354 BI 52	Fungi, Plant pathology and Lichens	9
354 BI 53	Invertebrata	9
354 BI 54	Chordata	9
354 EE 01	Elective in Education – I (Challenges in Education)	9
354 BI 56	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
354 BI 57	Invertebrata and Chordata Lab	9
354 CS 58	Modern Information System Lab	9
Semester II		
354 BI 61	Pteridophytes, Gymnosperm and Paleobotany	9
354 BI 62	Developmental Biology and Immunology	9
354 BI 63	Cell and Molecular Biology	9
	Second Major Module I	9

	Second Major Module II	9
354 BI 66	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and Embryology Lab	9
Semester III		
354 LA 71	Communication Skills	9
354 ED 72	Philosophy of Education	9
354 ED 73	Educational Management	9
354 ED 74	Science Education	12
354 ED 75	Mathematics Education	12
354 ED 76	Computer Science Education	9
354 TP 80	Teaching Practice	10
Semester IV		
354 TP 80	Teaching Practice	10
354 ED 81	Sociology of Education	9
354 ED 82	Educational Technology	9
354 ED 83	Educational Psychology	12
354 ED 84	Educational Guidance and Counselling	9
354 ED 85	Curriculum Development	9
	Elective in Education – II	9
Course Modules and Credits: Year 3		
Semester V		
354 BI 91	Plant Physiology	9
354 BI 92	Microbiology and Biochemistry	9
354 BI 93	Animal Physiology	9
	Second Major module III	9
	Second Major Module IV	9

	Allied Practical II (Second Major)	9
354 TP 90	Teaching Practice	10
	Semester VI	
354 TP 90	Teaching Practice	10
354 MG 101	Environmental Studies	9
354 BO 102	Genetics and Biotechnology	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
354 PJ 100	Project	18
ELECTIVE MODULES IN EDUCATION AND CREDITS		
354 EE 01	Challenges in Education	9
354 EE 02	Peace Education	9
354 EE 03	Environmental Education	9
354 EE 04	Physical Education	9
354 EE 05	Art Education	9
354 EE 06	Health Education	9
354 EE 07	Education for Children with Special Needs	9
354 EE 08	Elementary Education	9
354 EE 09	Population Education	9
354 EE 10	Value Education & Education for Human Rights	9
SECOND MAJOR (OPTION 1): CHEMISTRY		
THEORY MODULES – CHEMISTRY		
354 CH 01	Analytical Chemistry	9
354 CH 02	Concepts in Inorganic Chemistry	9

354 CH 03	Hydrocarbons and Stereochemistry	9
354 CH 04	Organic Functional Groups I	9
354 CH 05	Main Group Elements and Solid State Chemistry	9
354 CH 06	Thermodynamics	9
354 CH 07	Electrochemistry	9
354 CH 08	Organic Functional Groups II	9
354 CH 09	Chemistry of Materials	9
354 CH 10	Industrial Chemistry	9
354 CH 11	Transition Elements and Nuclear Chemistry	9
354 CH 12	Phase Equilibria and Kinetics	9
354 CH 13	Polymer Chemistry	9
354 CH 14	Biochemistry	9
354 CH 15	Food Chemistry and Technology	9
PRACTICAL MODULES – CHEMISTRY		
354 CH 16	Inorganic Qualitative Analysis	9
354 CH 17	Organic Qualitative Analysis	9
354 CH 18	Volumetric Analysis and Inorganic Preparations	9
354 CH 19	Physical Chemistry Practical	9
	SECOND MAJOR (OPTION-2): PHYSICS	
	THEORY MODULES	
354 PH 01	Mechanics	9
354 PH 02	Heat and Thermodynamics	9
354 PH 03	Properties of Matter and Sound	9
354 PH 04	Optics	9
354 PH 05	Electricity and Magnetism	9

354 PH 06	Emerging Physics	9
354 PH 07	Basic Electronics	9
354 PH 08	Atomic Physics	9
354 PH 09	Nuclear Physics	9
354 PH 10	Quantum Mechanics and Relativity	9
354 PH 11	Solid State Physics	9
	PRACTICAL MODULES	
354 PH 16	Physics Practical I	9
354 PH 17	Physics Practical II	9
354 PH 18	Physics Practical III	9
354 PH 19	Physics Practical IV	9
	SECOND MAJOR (OPTION 3): COMPUTER SCIENCE	
	THEORY MODULES – COMPUTER SCIENCE	
354 CS 01	Computer Organization and Architecture	9
354 CS 02	Data Structures and Algorithms	9
354 CS 03	Relational Database Management System	9
354 CS 04	Operating System	9
354 CS 05	Computer Graphics	9
354 CS 06	Visual Programming	9
354 CS 07	Object Oriented Programming	9
354 CS 08	Data Communication and Networking	9
354 CS 09	Computer Installation & Servicing	9
354 CS 10	Programming in Java	9
354 CS 11	Computer Network & Security	9

	PRACTICAL MODULES – COMPUTER SCIENCE	
354 CS 16	Relational Database Management System and Operating System laboratory	9
354 CS 17	Object Oriented Programming and Visual Programming Laboratory	9
354 CS 18	Programming in Java and Web Technology Laboratory	9
354 CS 19	Computer Installation & Servicing and Computer Network and Security Laboratory	9
COMPUTER SCIENCE		
COURSE MODULES AND CREDITS: YEAR – 1		
Semester I		
Module Code	**Module Name**	**Credits**
351 CS 51	Operating System	9
351 CS 52	Visual Programming	9
351 CS 53	Object Oriented Programming	9
351 CS 54	Relational Database Management System	9
351 EE 01	Elective in Education I (Challenges in Education)	9
351 CS 56	Relational Database Management System and Operating System Laboratory	9
351 CS 57	Object Oriented Programming and Visual Programming Laboratory	9
351 CS 78	Modern Information System Lab	9
Semester II		
351 CS 61	Data Structures and Algorithms	9
351 CS 62	Computer Organization and Architecture	9
351 CS 63	Programming in Java	9
	Second Major Module I	9
	Second Major Module II	9

351 CS 66	Programming in Java and Web Technology Laboratory	9
	Allied Practical I (Second Major)	9
351 CS 68	Computer Programming Lab	9
COURSE MODULES AND CREDITS: YEAR 2		
Semester III		
351 LA 71	Communication Skills	9
351 ED 72	Philosophy of Education	9
351 ED 73	Educational Management	9
351 ED 74	Science Education	12
351 ED 75	Mathematics Education	12
351 ED 76	Computer Science Education	9
351 TP 80	Teaching Practice	10
Semester IV		
351 TP 80	Teaching Practice	10
351 ED 81	Sociology of Education	9
351 ED 82	Educational Technology	9
351 ED 83	Educational Psychology	12
351 ED 84	Educational Guidance and Counselling	9
351 ED 85	Curriculum Development	9
	Elective in Education – II	9
Course Modules and Credits: Year 3		
Semester V		
351 CH 91	Computer Installation and Servicing	9
351 CH 92	Computer Network & Security	9
351 CH 93	Computer Graphics	9

	Second Major Module III	9
	Second Major Module IV	9
351 CH 96	Physical Chemistry Practical	9
	Allied Practical II (Second Major)	9
351 TP 90	Teaching Practice	10
Semester VI		
351 TP 90	Teaching Practice	10
351 MG 101	Environmental Studies	9
351 CH 102	Transition Elements and Nuclear Chemistry	9
	Core Elective I	9
	Core Elective II	9
	Core Elective III	9
351 PJ 100	Project	18
ELECTIVE MODULES IN EDUCATION AND CREDITS		
351 EE 01	Challenges in Education	9
351 EE 02	Peace Education	9
351 EE 03	Environmental Education	9
351 EE 04	Physical Education	9
351 EE 05	Art Education	9
351 EE 06	Health Education	9
351 EE 07	Education for Children with Special Needs	9
351 EE 08	Elementary Education	9
351 EE 09	Population Education	9
351 EE 10	Value Education & Education for Human Rights	9
351 EE 11	Teaching of English	9

351 EE 12	Teaching of social Science	9
CORE ELEECTIVES, CORE PRACTICALS AND CREDITS		
Computer Science Elective Modules		
351 CE 01	Software Engineering	9
351 CE 02	Web Technology	9
351 CE 03	Financial Accounting	9
351 CE 04	Management Information System	9
351 CE 56	System Analysis and Design	9
SECOND MAJOR (OPTION 1): MATHEMATICS		
THEORY MODULES – MATHEMATICS		
351 MA 01	Introductory Algebra	9
351 MA 02	Trigonometry	9
351 MA 03	Calculus	9
351 MA 04	Analytical Geometry	9
351 MA 05	Differential Equations and its Applications	9
351 MA 06	Discrete Mathematics	9
351 MA 07	Vector Analysis and Fourier Analysis	9
351 MA 08	Linear Programming	9
351 MA 09	Modern Algebra	9
351 MA 10	Operation Research	9
351 MA 11	Numerical Methods	9
351 MA 12	Quantitative Techniques	9
351 MA 13	Probability Theory	9
351 MA 14	Graph Theory	9

SECOND MAJOR (OPTION-2): BIOLOGY		
BIOLOGY THEORY MODULES		
351 BI 01	Algae and Bryophytes	9
351 BI 02	Fungi, Plant pathology and Lichens	9
351 BI 03	Invertebrata	9
351 BI 04	Chordata	9
351 BI 05	Pteridophytes, Gymnosperm and Paleobotany	9
351 BI 06	Developmental Biology and Immunology	9
351 BI 07	Cell and Molecular Biology	9
351 BI 08	Plant Physiology	9
351 BI 09	Microbiology and Biochemistry	9
351 BI 10	Animal Physiology	9
351 BI 11	Genetics and Biotechnology	9
351 BI 12	Taxonomy of Angiosperms	9
351 BI 13	Nutrition and Dietetics	9
BIOLOGY PRACTICAL MODULES		
351 CH 16	Algae and Bryophytes & Fungi, Plant pathology and Lichens Lab	9
351 CH 17	Invertebrata and Chordata Lab	9
351 CH 18	Pteridophytes, Gymnosperm, Angiosperms, Anatomy and	9
351 CH 19	Plant and Animal Physiology Lab	9
SECOND MAJOR (OPTION 3): CHEMISTRY		
	THEORY MODULES – CHEMISTRY	
351 CH 01	Analytical Chemistry	9
351 CH 02	Concepts in Inorganic Chemistry	9
351 CH 03	Hydrocarbons and Stereochemistry	9

351 CH 04	Organic Functional Groups I	9
351 CH 05	Main Group Elements and Solid State Chemistry	9
351 CH 06	Thermodynamics	9
351 CH 07	Electrochemistry	9
351 CH 08	Organic Functional Groups II	9
351 CH 09	Chemistry of Materials	9
351 CH 10	Industrial Chemistry	9
351 CH 11	Transition Elements and Nuclear Chemistry	9
351 CH 12	Phase Equilibria and Kinetics	9
351 CH 13	Polymer Chemistry	9
351 CH 14	Biochemistry	9
351 CH 15	Food Chemistry and Technology	9
PRACTICAL MODULES		
351 CH 16	Inorganic Qualitative Analysis	9
351 CH 17	Organic Qualitative Analysis	9
351 CH 18	Volumetric Analysis and Inorganic Preparations	9
351 CH 19	Physical Chemistry Practical	9

2015 Regulation (3yrs and 5yrs BSc Ed)

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

Course Mapping on the Semester Time Frame

The proposed course mapping onto the semester time frame is as shown in Tables 1-13. It is to be noted that the indicated optional courses are necessary for completion of degree programme. Other additional optional courses can be selected provided prerequisites and other conditions of registration are satisfied.

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

Table 1 : 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
		701 CC 02 Basics of Computers	12
2	V	701 CC 03 Environmental Studies	8
	VI	701 PJ 100 Project***	9

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

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

Table 2 : 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 Philosophy	9
	II	701 ED 61 Educational Management and School Administration	8
		701 ED 62 Educational Psychology	9
		701 ED 63 Educational Technology	8
2	III	701 ED 71 Pedagogy of Teaching	12
		701TP01 Teaching Practice I	9
	IV	701 ED 81 Educational Guidance & Counselling	8

		701 ED 82 Sociology of Education	8
3	V	701 ED 91 Curriculum development	8
		701TP 02 Teaching Practice II	9
	VI	701 ED 101Teaching Professionalism	8
		701 ED 102 Educational Measurement, Evaluation and Research	9

Table 3 : Semester Mapping for common **Elective** courses for the B.Sc. (with Ed.) programme.

Sl. No.	Course Code and Title	Credits
1	701 EE 01 Physical & Health Education	*8*
2	701 EE 02 Education for Children with Special Needs	*8*
3	701 EE 03 Challenges in Education	*8*
4	701 EE 04 Value Education & Education for Human Rights	*8*
5	701 EE 05 Peace Education	*8*

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

Table 4: Semester Mapping of core Mathematics courses.

Year	Semester	Code and Title of Courses	Credit
1	I	350 MA 51: Introduction to Mathematical Analysis	9
		350 MA 52: Introduction to Linear Algebra	9
	II	350 MA 61: Calculus for Functions of a Single Variable	9
		350 MA 62: Numerical Methods	9
2	III	350 MA 71: Differential Equations and its Applications	9
		350 MA 72: Vector Analysis and Fourier Analysis	9
	IV	350 MA 81: Analytical Geometry	9
		350 MA 82: Mathematical Statistics	9

3	V	350 MA 91: Complex Analysis	9
		350 MA 92 Calculus for Functions of Several Variables	9
	VI	350 MA 101: Linear Programming	9
		350 MA 102: Graph Theory	9

Table 5: Semester Mapping of elective Mathematics courses.

Sl. No.	Code and Title of Courses	Credits
1	350 MA 01 Discrete Mathematics	9
2	350 MA 02 Probability Theory	9
3	350 MA 03 Modern Algebra	9

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

Table 6 : Semester Mapping of core Computer Science courses.

Year	Semester	Course Code & Title	Credits
1	I	351 CS 51 Computer Programming	9
		351 CS 52 Data Structures and Algorithms	9
	II	351 CS 61Computer Organization and Architecture	9
		351 CS 62 Operating System	9
2	III	351 CS 71 Object Oriented Programming in Java	9
		351 CS 72 Computer Graphics	9
	IV	351 CS 81 Relational Database Management System	9
		351 CS 82 Visual Programming	9
3	V	351 CS 91 Software Engineering	9
		351 CS 92 System Analysis and Design	9
	VI	351 CS 101 Computer Installation and Servicing	9

		351 CS 102 Computer Network & Security	9

Table 7: Semester Mapping of elective Computer Science courses

Sl. No.	Course Code & Title	Credits
1	351 CS 01Web Programming	*9*
2	351 CS 02 Systems Administration in Linux	*9*
3	351 CS 03 Mobile Application Development	*9*
4	351 CS 04 Modern Information System Lab	*9*
5	351 CS 05 Data Communication and Networking	*9*

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

Table : 8 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	III	352 PH 71 Oscillations and Optics	9
		352 PH 72 Physics Practical III	9
	IV	352 PH 81 Quantum Mechanics and Relativity	9
		352 PH 82 Physics Practical IV	9
3	V	352 PH 91 Classical and Statistical Thermodynamics	9
		352 PH 92 Electronics	9
	VI	352 PH 101 Atomic Physics	9
		352 PH 102 Solid State Physics	9

Table 9: Semester Mapping of elective Physics courses		
Sl. No.	**Course Code And Title**	**Credits**
1.	352 PH 01 Energy Physics	*9*
2.	352 PH 02 Fundamentals of Materials Science	*9*
3.	352 PH 03 Nuclear Physics and Elementary Particles	*9*

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

Table 10: Semester Mapping of core Chemistry Courses.			
Sl. No.	**Course Code & Title**	**Credits**	**Total**
1.	353 CH 51BasicAnalytical Chemistry	9	18
2.	353 CH 52 Concepts in Inorganic and General Chemistry	9	
3.	353 CH 61 Volumetric Analysis and Inorganic Preparations	9	18
4.	353 CH 62 Chemistry of Organic Compounds I	9	
5.	353 CH 71 Chemistry of Organic Compounds II	9	18
6.	353 CH 72 Inorganic and Organic Qualitative Analysis	9	
7.	353 CH 81 Inorganic Chemistry	9	18
8.	353 CH 82 Chemical Thermodynamics	9	
9.	353 CH 91 Physical Chemistry Practical	9	18
10.	353 CH 92 Electrochemistry	9	
11.	353 CH 101 Instrumental Analytical Chemistry	9	18
12.	353 CH 102 Chemical Kinetics and Nuclear Chemistry	9	
	Total Credits		108

Table 11: Semester Mapping of elective Chemistry courses.		
Sl. No.	**Course Code & Title**	**Credits**
1.	353 CH 01Environmental Chemistry	8
2.	353 CH 02 Chemistry of Materials	8
3.	353 CH 03 Food Chemistry and Technology	8
4.	353 CH 04 Industrial Chemistry	8

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

Table 12: Semester Mapping of core Biology courses.			
Year	**Semester**	**Course Code & Title**	**Credits**
1	I	354 BI 51 Introductory Cell Biology and Genetics	9
		354 BI 52 Invertebrate Zoology	9
	II	354 BI 61 Biochemistry	9
		354 BI 62Chordate Zoology	9
2	III	354 BI 71 Evolutionary Botany	12
		354 BI 72 Developmental Biology and Immunology	9
	IV	354 BI 81 Cell and Molecular Biology	12
		354 BI 82 Ecology I	9
3	V	354 BI 91 Plant Physiology	9
		354 BI 92 Animal Physiology	9
	VI	354 BI 101 Vertebrate Anatomy and Physiology II	9
		354 BI 102 Anatomy of Angiosperms	9

Table 13: Semester Mapping of elective Biology courses.		
Sl. No.	Course Code & Title	Credits
1	354 BI 01 Taxonomy of Higher plants	9
2	354 BI 02 Fundamentals of soil science	9
3	354 BI 03 Evolution	9
4	*354 BI 04 Ecology II*	*9*
5	354 BI 05 Introductory Entomology and Parasitology	*9*
6	354 BI 06 Chemistry for Life Sciences students	*9*

10.1.2.3 Diploma Programme

10.1.2.3.1 Diploma in Civil Engineering (DCE)

10.1.2.3.2 Diploma in Electrical and Electronics Engineering (DEEE)

10.1.2.3.3 Diploma in Electronics and Communication Engineering (DECE)

10.1.2.3.4 Diploma in Computer Science and Engineering (DCE)

10.1.2.3.5 Diploma in Diploma in Information Technology (DIT)

10.1.2.3.1 Diploma in Civil Engineering (DCE)		
Module Code	**Module Name**	**Credits**
Semester I		
00 LA 101	Communication Skills I	12
00 MA 102	Basic Engineering Mathematics I	15
00 PH 103	Physics	15
00 CS 104	Basics of Computer Science	12

00 ME 107	Workshop Practice	9
00 CS 108	Office Laboratory	9
Semester II		
00 LA 201	Communication Skills II	12
00 MA 202	Basic Engineering Mathematics II	15
00 CH 203	Chemistry	12
00 CS 204	Computer Programming Language	12
00ME 207	Technical Drawing	15
00 CS 208	Computer Programming Laboratory	9
Semester III		
01 CE 301	Engineering Mechanics	12
01 CE 302	Construction Materials and Practice	12
01 CE 303	Surveying	12
01 CE 307	Civil Engineering Drawing I	9
01 CE 308	Material Testing Laboratory and Practice I	9
01 CE 309	Surveying Laboratory Practice I	9
01 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
Semester IV		
01 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
01 CE 401	Theory of Structures	12
01 CE 402	Environmental Engineering	12
01 CE 403	Transportation Engineering	12
01 CE 407	Material Testing Laboratory and Practice II	9
01 CE 408	CAD in Civil Engineering Drawing Laboratory I	9

01 CE 409	Surveying Laboratory II	9
Semester V		
01 CE 501	Structural Engineering	12
01 CE 502	Quantity Surveying	12
01 CE 503	Hydraulics	12
01 CE 507	CAD in Civil Engineering Drawing Laboratory II	9
01 CE 508	Construction Laboratory	9
01 CE 509	Hydraulics and Plumbing Laboratory	9
01 PJ 609	Project Phase I	9
01 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
Semester VI		
01 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
01 CE 601	Construction Management with MIS	12
01 CE 602	Concrete Technology and Advanced Construction	12
	Elective I	12
	Elective II	12
01 CE 607	Computer Application in Civil Engineering Lab	9
01 PJ 609	Project Phase II	15
Electives		
01 CE 611	Elements of Interior Design	12
01 CE 612	Water Resource Management	12
01 CE 613	Town Planning	12

10.1.2.3.2	Diploma in Electrical and Electronics Engineering (DEEE)	
Semester I		
00 LA 101	Communication Skills I	12
00 MA 102	Basic Engineering Mathematics I	15
00 PH 103	Physics	15
00 CS 104	Basics of Computer Science	12
00 ME 107	Workshop Practice	9
00 CS 108	Office Laboratory	9
Semester II		
00 LA 201	Communication Skills II	12
00 MA 202	Basic Engineering Mathematics II	15
00 CH 203	Chemistry	12
00 CS 204	Computer Programming Language	12
00ME 207	Technical Drawing	15
00 CS 208	Computer Programming Laboratory	9
Semester III		
03 EE 301	Electrical Circuit Theory	12
03 EE 302	Electrical Machines I	12
03 EE 303	Electronic Devices & Circuits	12
03 EE 307	Electrical Circuits Laboratory	9
03 EE 308	Electrical Machines Laboratory I	9
03 EE 309	Electronic Devices and Circuits Laboratory	9
03 IP 001	Industrial Practical Training (4weeks * 40hrs)	16

Semester IV		
03 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
03 EE 401	Electrical Machine II	12
03 EE 402	Measurement and Instrumentation	12
03 EE 403	Analog and Digital Electronics	12
03 EE 407	Electrical Machine Laboratory II	9
03 EE 408	Measurement and Instrumentation Laboratory	9
03 EE 409	Analog and Digital Electronics Laboratory	9
Semester V		
03 EE 501	Power System I	12
03 EC 502	Microprocessor and Microcontrollers	12
	Elective Theory I	12
03 EE 507	Electrical Wiring, Winding and Estimation Laboratory	9
03 EC 508	Microprocessor and Microcontrollers Laboratory	9
	Elective Laboratory I	9
03 PJ 609	Project Phase I	9
03 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
Semester VI		
03 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
03 EE 601	Power System II	12
03 EE 602	Generation, Transmission and Switch Gear	12
	Elective Theory II	12
03 EE 607	Computer Aided Electrical Drawing Laboratory	9
	Elective II Laboratory	9

03 PJ 609	Project Phase II	15
Electives		
03 CS 611	Programming in C++	12
03 EE 612	Control of Electrical Machines	12
03 EE 613	Non Conventional Energy Sources	12
03 EE 621	Electrical Machine Design	12
03 EE 622	Power Electronics	12
03 CS 623	Computer Hardware Servicing	12
03 EE 631	Programmable Logic Controller	12
03 CS 617	Programming in C++ Laboratory	9
03 EE 618	Control of Electrical Machines Laboratory	9
03 EE 619	Non Conventional Energy Sources Laboratory	9
03 EE 627	Electrical Machine Design Laboratory	9
03 EE 628	Power Electronics Laboratory	9
03 EE 629	Computer Hardware Servicing Laboratory	9
03 EE 637	Programmable Logic Controller Laboratory	9
10.1.2.3.3	**Diploma in Electronics and Communication Engineering (DECE)**	
Semester I		
00 LA 101	Communication Skills I	12
00 MA 102	Basic Engineering Mathematics I	15
00 PH 103	Physics	15
00 CS 104	Basics of Computer Science	12
00 ME 107	Workshop Practice	9
00 CS 108	Office Laboratory	9

Semester II		
00 LA 201	Communication Skills II	12
00 MA 202	Basic Engineering Mathematics II	15
00 CH 203	Chemistry	12
00 CS 204	Computer Programming Language	12
00ME 207	Technical Drawing	15
00 CS 208	Computer Programming Laboratory	9
Semester III		
04 EC 301	Electronic Devices and Circuits	12
04 EC 302	Electric Circuits and Instrumentation	12
04 CS 303	C++ Programming	12
04 EC 307	Electronic Devices and Circuits Laboratory	9
04 EC 308	Electric Circuits and Instrumentation Laboratory	9
04 CS 309	C++ Programming Laboratory	9
04 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
Semester IV		
04 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
04 EC 401	Analog and Digital Electronics	12
04 EC 402	Industrial Electronics	12
04 EC 403	Communication Engineering	12
04 EC 407	Analog and Digital Electronics Laboratory	9
04 EC 408	Industrial Electronics Laboratory	9
04 EC 409	Communication Engineering Laboratory	9
Semester V		

04 EC 501	Microprocessor and Microcontroller	12
04 EC 502	Advance Communication System	12
04 CS 503	Computer Hardware and Networking	12
04 EC 507	Microprocessor and Microcontroller Laboratory	9
04 EC 508	Advance Communication System Laboratory	9
04 CS 509	Computer Hardware and Networking Laboratory	9
04 PJ 609	Project Phase I	9
04 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
Semester VI		
04 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
04 CS 601	Embedded System	12
	Elective I	12
	Elective II	12
04 EC 607	Embedded System Laboratory	9
	Elective II Laboratory	9
04 PJ 609	Project Phase II	15
Electives		
04 EC 611	Digital Signal Processing	12
04 EC 612	VLSI	12
04 EC 621	Robotics and Auto Electronics	12
04 CS 622	Digital Image Processing	12
04 EC 631	Television Engineering	12
04 EC 632	Bio-Medical Instrumentation	12
04 EC 617	Digital Signal Processing Laboratory	9

04 EC 618	VLSI Laboratory	9
04 EC 627	Robotics and Auto Electronics Laboratory	9
10.1.2.3.4	**Diploma in Computer Science and Engineering (DCE)**	
	Semester I	
00 LA 101	Communication Skills I	12
00 MA 102	Basic Engineering Mathematics I	15
00 PH 103	Physics	15
00 CS 104	Basics of Computer Science	12
00 ME 107	Workshop Practice	9
00 CS 108	Office Laboratory	9
	Semester II	
00 LA 201	Communication Skills II	12
00 MA 202	Basic Engineering Mathematics II	15
00 CH 203	Chemistry	12
00 CS 204	Computer Programming Language	12
00ME 207	Technical Drawing	15
00 CS 208	Computer Programming Laboratory	9
	Semester III	
05 EC 301	Basics of Electrical and Electronics Engineering	12
05 CS 302	Data Structures and Algorithm	12
05 CS 303	PC Hardware and Servicing	12
05 EC 307	Electrical and Electronics Laboratory	9
05 CS 308	Advanced C Programming Laboratory	9
05 CS 309	PC Hardware and Servicing Laboratory	9

05 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
Semester IV		
05 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
05 CS 401	Object Oriented Programming with Java	12
05 CS 402	Internet Concepts and Web Designing	12
05 CS 403	Computer Architecture & Assembly Language Programming	12
05 CS 407	Java Programming Laboratory	9
05 CS 408	Web Designing Laboratory	9
05 CS 409	Visual Basic Programming Laboratory	9
Semester V		
05 CS 501	Relational Database Management System	12
05 CS 502	Computer Networks and Security	12
05 CS 503	Operating System	12
05 CS 507	Relational Database Management System Laboratory	9
05 CS 508	Computer Networks and Security Laboratory	9
05 CS 509	Operating System Laboratory	9
05 PJ 609	Project Phase I	9
05 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
Semester VI		
05 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
05 CS 601	Mobile Computing	12
05 CS 602	TCP/IP Networking	12
	Elective	12
05 CS 607	TCP/IP Networking Laboratory	9

	Elective Laboratory	9
05 PJ 609	Project Phase II	15
Electives		
05 CS 611	Advance Java Programming	12
05 CS 612	Visual C++ Programming	12
05 CS 632	Financial Accounting and Management	12
05 CS 633	Multimedia Systems	12
05 CS 617	Advance Java Programming Laboratory	9
05 CS 618	Visual C++ Programming Laboratory	9
05 CS 638	Accounting Laboratory	9
05 CS 639	Multimedia Laboratory	9
10.1.2.3.5	**Diploma in Information Technology (DIT)**	
Semester I		
00 LA 101	Communication Skills I	12
00 MA 102	Basic Engineering Mathematics I	15
00 PH 103	Physics	15
00 CS 104	Basics of Computer Science	12
00 ME 107	Workshop Practice	9
00 CS 108	Office Laboratory	9
Semester II		
00 LA 201	Communication Skills II	12
00 MA 202	Basic Engineering Mathematics II	15
00 CH 203	Chemistry	12
00 CS 204	Computer Programming Language	12

00ME 207	Technical Drawing	15
00 CS 208	Computer Programming Laboratory	9
Semester III		
06 EC 301	Basics of Electrical and Electronics Engineering	12
06 CS 302	Data Structures and Algorithm	12
06 CS 303	Operating System	12
06 EC 307	Electrical and Electronics Laboratory	9
06 CS 308	Advanced C Programming Laboratory	9
06 CS 309	Operating System Laboratory	9
06 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
Semester IV		
06 IP 001	Industrial Practical Training (4weeks * 40hrs)	16
06 CS 401	Object Oriented Programming with Java	12
06 CS 402	Internet Concepts and Web Designing	12
06 CS 403	Computer Architecture & Assembly Language Programming	12
06 CS 407	Java Programming Laboratory	9
06 CS 408	Web Designing Laboratory	9
06 CS 409	Visual Basic Programming Laboratory	9
Semester V		
06 CS 501	Relational Database Management System	12
06 CS 502	Open Source Software's	12
06 CS 503	Multimedia Systems	12
06 CS 507	Relational Database Management System Laboratory	9
06 CS 508	Open Source Software Laboratory	9

06 CS 509	Multimedia Systems Laboratory	9
06 PJ 609	Project Phase I	9
06 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
Semester VI		
06 IP 002	Industrial Practical Training (4weeks * 40hrs)	16
06 CS 601	Management Information System	12
06 CS 602	.Net Programming	12
	Elective	12
06 CS 607	.Net Programming Laboratory	9
	Elective Laboratory	9
06 PJ 609	Project Phase II	15
Electives		
06 CS 611	Advance Java Programming	12
06 CS 612	Visual C++ Programming	12
06 CS 631	Computer Networks and Security	12
06 CS 632	Financial Accounting and Management	12
06 CS 617	Advance Java Programming Laboratory	9
06 CS 618	Visual C++ Programming Laboratory	9
06 CS 637	Computer Networks and Security Laboratory	9
06 CS 638	Accounting Laboratory	9

10.1.3 Facilities:

a. **Computer Laboratory**: The College has exclusive computer laboratories with more than 400 computers installed with required software for the Computer

Science, Information Technology, Civil Engineering and the Electronics and Communication Departments.

b. **Library**: The library is adequately stacked with a variety of prescribed text books, reference books, e–books, non-book materials including CDs, DVDs, magazines and journals. The library can accommodate 300 students at a time. The library is kept opened for the students to assess the resources from 7:00 am to 7:00 pm on all working days. Adequate facilities are available for good learning and accessing websites for updating their knowledge on technological updates around the globe.

c. **Canteen**: SJUCET has a generous and spacious canteen accommodating 420 students at a time. The canteen serves the entire college with a wide range of menu to the students. It functions on all working days and is open on Saturdays also, to cater to the students coming for accessing library and attending other programmes in the college.

d. **Hostel** : The college has outsourced the hostel accommodation and offers it at free of cost to the girl students to encourage and empower the girls in higher education stream. However, the cost towards other consumables like food, electricity, water and electric and electronic appliances must be borne by themselves. Hostel routines call for extreme self-disciple for the hostellers. The hostellers need to compulsorily abide by the norms and rules of the hostel, any willful damages caused would attract adequate compensation and would be borne by the student independently / collectively.

10.1.4 Co-Curricular and Extra-Curricular Activities

a. **Students Participation**: The College, facilitates the students in taking part in academic / administration for good governance by involving the student representatives of each classes in the following

- Class Committee
- Course Committee
- Department Examination Board meetings

The representatives of the Student Organisation of St. Joseph University College of Engineering and Technology (SOSJCET) take part in the College Examination Board and Award Committee meetings. The Students Organisation also actively takes part in the College Advisory Board and in the University Senate meetings to contribute in enhancing the quality of education and transparency in governance.

b. **Forums, Clubs and Associations**: In addition to quality education and discipline, the college also promotes the students in wider attributes such as spiritual, health, sports etc. with a view of developing their personality providing opportunities through various clubs, and its activities are guided and coordinated by designated experts. Some of the Clubs, Forums and Associations are universal for all college students, while some other is specific to certain departments. The clubs, forums and associations functioning in the College are :-

- Fine Arts Club
- Departmental Clubs
- Newsletter Club
- Sports Club
- Community Club
- Prayer Club
- WISE Club

c. **Sports and Games**: The College shows special importance to bring the latent talents of the students through sports and games. Thus, sports and games are provided to the students in tune with the healthy mind in a healthy body. The physical education department aims at the physical, intellectual, spiritual and moral development of a student to develop the team spirit, discipline and spirit of sportsmanship in them. The students are trained in their field of interest by a professionally qualified Physical Education Staff on all working days after the college hours and also on Saturdays. The Sports Committee of the College conducts and encourages students to participate in the intra-department, inter – department and inter-collegiate level in the National games such as Tanzania

Universities Sports Association (TUSA) and win laurels. The students of SJUCET have won championship in basketball, runners up in athletics events and laurels in other indoor events.

10.1.5 Placement and Training Cell :

The College has already established a Placement and Training Cell to achieve the ultimate goal of developing and preparing the students for good placement / encourage them to become entrepreneur. The Placement and Training Cell conducts frequent training for the students to match with the prevailing industrial requirement and soft skills so as to get the students placed in their dream job or to become a successful entrepreneur.

10.2. ST .JOSEPH UNIVERSITY COLLEGE OF MANAGEMENT AND COMMERCE, Makambako (SJUCMC)

10.2.1 Introduction

St. Joseph University College of Management and Commerce, a campus colleges of St. Joseph University in Tanzania (SJUIT) is situated in the highlands of Tanzania at Makambako. It caters the needs of the students in the field of Accountancy, Business, Finance, Marketing, Human Resource Management, Tourism, International Business, Information technology and management. 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.

10.2.2 Programmes Offered:

The College offers **two** Bachelor's degree programmes

10.2.2.1 Bachelor Degree Programme

10.2.2.1.1 `Bachelor of Commerce (B.Com.) - 3 Years duration

Module code	Module Name	Credits
Semester I		
551 LA 11	Business Communication	15
551 MA 12	Business Mathematics	15
551 MG 13	Principle of Management	12
551 AC 14	Principles of Accounting I	12
551 CS 17	Modern Information System Laboratory	15
Semester II		
551 MG 21	Business Environment	12
551 AC 22	Financial Accounting	15
551 MA 23	Business Statistics	12

551 AC 24	Principles of Accounting II	12
551 MG 25	Developmental Studies	12
Semester III		
551 MG 31	Marketing Management	12
551 CO 32	Business Law	12
551 MA 33	Operational Research	15
551 CO 34	Banking Theory Law & Practice	12
551 AC 35	Corporate Accounting I	12
551 CS 37	Accounting Software Laboratory	9
551 IT 40	Industrial Training 8 weeks	20
Semester IV		
551 AC 41	Cost Accounting	15
551 CO 42	Principles and Practice of Insurance	12
551 CO 43	Foreign Exchange and Financing of Foreign Trade	12
551 CS 44	E-Commerce	12
551 AC 45	Corporate Accounting II	12
551 AC 46	Practical Auditing	12
Semester V		
551 AC 51	Management Accounting	12
551 MG 52	Financial Management	12
551 MG 53	Entrepreneurial Development	12
	Elective I	12
	Elective II	12
551 PJ 66	Project Report and Viva-Voce Phase I	9

Semester VI		
551 CS 61	Management Information System	12
551 MG 62	Business Ethics and Values	12
	Elective III	12
	Elective IV	12
551 PJ 66	Project Report and Viva-Voce	21
List of Elective Modules		
Human Resource Management (HRM)		
551 MG 001	Human Resource Development	4
551 MG 002	Industrial & Personnel Psychology	4
551 MG 003	Labour Welfare and Social Security	4
551 MG 004	Labour Laws	4
Advertising and Marketing		
551 MG 011	Sales and Distribution Management	4
551 MG 012	Advertising and Sales Promotion	4
551 MG 013	Consumer Behaviour	4
551 MG 014	Marketing of Industrial Goods	4
551 MG 015	Marketing for Non-Profit Organization	4
551 MG 016	Industrial Marketing	4
551 MG 017	Technology Marketing	4
551 MG 018	Advertising	4
551 MG 019	Media Management	4
Finance		
551 AC 031	Financial Markets and Services	4
551 AC 032	Cost and Financial Analysis	4

551 AC 033	Portfolio Management	4
551 AC 034	Financial Markets	4
551 AC 035	Risk Management	4
Information Technology Management		
551 CS 041	E – Commerce	4
551 CS 042	Web Technology	4
551 CS 043	Enterprise Resource Planning	4
551 CS 044	Relational Database Management System	4
551 CS 045	System Analysis and Design	4
551 CS 046	Visual Programming	4
551 CS 047	Java Programming	4
551 CS 048	Multimedia	4
Tourism		
551 MG 061	Tourism Management I	4
551 MG 062	Tourism Management II	4
551 MG 063	Tourism Business	4
551 MG 064	Tourism Product	4
International Business		
551 MG 071	Export Import Trade	4
551 MG 072	International Finance	4
551 MG 073	International Human Resource Management	4

10.2.2.1.2 Bachelor of Business Administration (B.B.A.) - 3 Years duration		
Module code	**Module Name**	**Credits**
Semester I		
552 LA 11	Business Communication	15
552 MA 12	Business Mathematics	15
552 MG 13	Principle of Management	12
552 MG 14	Organizational Behaviour	12
552 CS 17	Modern Information System Laboratory	15
Semester II		
552 MG 21	Business Environment	12
552 AC 22	Financial Accounting	15
552 MA 23	Business Statistics	12
552 MG 24	Managerial Economics	12
552 MG 25	Developmental Studies	12
Semester III		
552 MG 31	Marketing Management	12
552 CO 32	Business Law	12
552 MA 33	Operational Research	15
552 CO 34	Banking Theory Law & Practice	12
552 CS 37	RDBMS Laboratory	12
552 IT 40	Industrial Training 8 weeks	20
Semester IV		
552 AC 41	Cost Accounting	15
552 MG 42	Human Resource Management	12
552 MG 43	Project Planning & Evaluation	12

552 MG 44	Research Methodology	12
552 SV 49	Management Seminar and Comprehensive Viva	12
Semester V		
552 AC 51	Management Accounting	12
552 MG 52	Financial Management	12
552 MG 53	Entrepreneurial Development	12
	Elective I	12
	Elective II	12
552 PJ 66	Project Report and Viva-Voce Phase I	9
Semester VI		
552 CS 61	Management Information System	12
552 MG 62	Business Ethics and Values	12
	Elective III	12
	Elective IV	12
552 PJ 66	Project Report and Viva-Voce	21
List of Elective Modules		
Human Resource Management (HRM)		
552 MG 001	Human Resource Development	4
552 MG 002	Industrial & Personnel Psychology	4
552 MG 003	Labour Welfare and Social Security	4
552 MG 004	Labour Laws	4
Advertising and Marketing		
552 MG 011	Sales and Distribution Management	4
552 MG 012	Advertising and Sales Promotion	4
552 MG 013	Consumer Behaviour	4

552 MG 014	Marketing of Industrial Goods	4
552 MG 015	Marketing for Non Profit Organization	4
552 MG 016	Industrial Marketing	4
552 MG 017	Technology Marketing	4
552 MG 018	Advertising	4
552 MG 019	Media Management	4
Finance		
552 AC 031	Financial Markets and Services	4
552 AC 032	Cost and Financial Analysis	4
552 AC 033	Portfolio Management	4
552 AC 034	Financial Markets	4
552 AC 035	Risk Management	4
Information Technology Management		
552 CS 041	E – Commerce	4
552 CS 042	Web Technology	4
552 CS 043	Enterprise Resource Planning	4
552 CS 044	Relational Database Management System	4
552 CS 045	System Analysis and Design	4
552 CS 046	Visual Programming	4
552 CS 047	Java Programming	4
552 CS 048	Multimedia	4
Tourism		
552 MG 061	Tourism Management I	4
552 MG 062	Tourism Management II	4
552 MG 063	Tourism Business	4

552 MG 064	Tourism Product	4
International Business		
552 MG 071	Export Import Trade	4
552 MG 072	International Finance	4
552 MG 073	International Human Resource Management	4

10.2.2.2 Short Term Programme

10.2.2.2.1 Ms-Office

10.2.2.2.2 Web Designing

10.2.2.2.3 Tally

10.2.3 Facilities:

a. **Computer Laboratory:** The Laboratory is equipped with 30 networked computers installed with required software packages.
b. **Library:** The library is equipped with a variety of prescribed text books, reference books and regularly updated international journals and magazines. The Library can accommodate around25 users. The Library comprises of five networked computers to connect to the internet. The library is also facilitated with Wi-Fi connectivity to enable students to access the University's network using their own laptop computers. The library can accommodate 186 students at a time. The library is kept opened for the students to assess the resources from 7:00 am to 7:00 pm on all working days.
e. **Canteen** : SJUCMC has a generous and spacious canteen that serves the entire college with a wide range of menu to the students. It functions on all working days and is open on Saturdays also, to cater to the students coming for accessing library and attending other programmes in the college.
f. **Hostel** : The college has outsourced the hostel accommodation and offers it at free of cost to the 70 girl students to encourage and empower the girls in higher

education stream. However, the cost towards other consumables like food, electricity, water and electric and electronic appliances must be borne by themselves. Hostel routines call for extreme self-disciple for the hostellers. The hostellers need to compulsorily abide by the norms and rules of the hostel, any willful damages caused would attract adequate compensation and would be borne by the student independently / collectively.

10.2.4. Co-Curricular and Extra-Curricular Activities

a. **Students Participation**: The College, facilitates the students in taking part in academic / administration for good governance by involving the student representatives of each classes in the following

- Class Committee
- Course Committee
- Department Examination Board meetings

The representatives of the Student Organisation of St. Joseph University College of Management and Commerce(SOSJCMC)take part in the College Examination Board and Award Committee meetings. The Students Organisation also actively takes part in the College Advisory Board and in the University Senate meetings to contribute in enhancing the quality of education and transparency in governance.

b. **Forums, Clubs and Associations**: The College concentrate not only in teaching but also promoting our students in wider attributes such as discipline, spiritual, health, sports etc., with a view of developing their personality providing opportunities through various clubs, and its activities are guided and coordinated by designated experts. Some of the Clubs, Forums and Associations are universal for all college students, while some other is specific to certain departments. The clubs, forums and associations functioning in the College are :-

i Fine Arts Club

ii Business Club

iii Sports Club

iv Prayer Club

c. **Sports and Games:** The College shows special importance to bring the latent talents of the students through sports and games. Thus, sports and games are provided to the students in tune with the healthy mind in a healthy body. The physical education department aims at the physical, intellectual, spiritual and moral development of a student to develop the team spirit, discipline and spirit of sportsmanship in them. The students are trained in their field of interest by a professionally qualified Physical Education Staff on all working days after the college hours and also on Saturdays. The Sports Committee of the College conducts and encourages students to participate in the intra-department, inter – department and inter-collegiate level in the National games such as Tanzania Universities Sports Association (TUSA) and win laurels.

10.2.5 Placement and Training Cell : The College has already established a Placement and Training Cell to achieve the ultimate goal of developing and preparing the students for good placement / encourage them to become entrepreneur. The Placement and Training Cell conducts frequent training for the students to match with the prevailing industrial requirement and soft skills so as to get the students placed in their dream job or to become a successful entrepreneur.

10.3. St. Joseph College of Health Sciences, Boko, Dar es Salaam (SJCHS)

10.3.1 Introduction

St. Joseph College of Health Sciences is an affiliated college of the St. Joseph University in Tanzania with a plan to be a full-fledged University. It is located on a seven acre plot along Bagamoyo Road, 30 kilometres from Dar es Salaam City centre. The College provides a conducive atmosphere for the pursuit of education. Currently, the College has been accredited by the Tanzania Commission for Universities (TCU), Medical Council of Tanganyika (MCT) for the Doctor of Medicine (MD) programme and by the NACTE and TNMC to run the Diploma in Nursing programme.

10.3.2 Programmes Offered:

The College offers the following programmes.

10.3.2.1 Doctor of Medicine (MD) - 5 years duration

10.3.2.2 Diploma in Nursing and Midwifery

10.3.2.3 Diploma in Pharmaceutical Sciences

10.3.2.4 Basic Technician Certificate in Pharmaceutical Sciences

10.3.2.5 Technician Certificate in Pharmaceutical Sciences

10.3.2.6 Technician Certificate in Nursing

10.3.2.1 Doctor of Medicine (MD)		
Module Code	**Module Name**	**Credits**
SEMESTER 1		
AN 100	Anatomy	6.4
BC 100	Biochemistry	4.9
PH 100	Basic Physiology	9.2

BS 100	Behavioural sciences	6.6
PF 100	Professionalism and Ethics	2.3
	Self-Study	0.1
SEMESTER 2		
AN 100	Anatomy	7.6
BC 100	Biochemistry	5.0
PH 101	Clinical Physiology	2.6
DS 100	Development studies	4.0
PF 100	Professionalism and Ethics	2.0
NC 100	Basic Communication Skills	4.0
SEMESTER 3		
MP 200	Pathology	6.0
MI 200	Microbiology and Immunology	9.1
PE 200	Parasitology and Entomology	4.9
ER 200	Epidemiology/Research Methods	4.0
DS 200	Development studies	4.0
SEMESTER 4		
MP 200	Pathology	9.4
ER 200	Epidemiology & Research Methods	3.1
CP 200	Clinical Pharmacology	9.3
PS 200	Psychopathology	2.5
EF 200	Nutritional Field Project	2.2
SEMESTER 5 and 6		
IM 300	Internal Medicine	7.8
MH 300	Paediatrics and Child Health	7.8

MS 300	Surgery	7.8
MG 300	Obstetrics and Gynaecology	5.0
PF 300	Professionalism and Ethics	1.8
MD 300	Communicable Diseases Control	4.0
RO 300	Radiology	4.8
SEMESTER 7 and 8		
PS 400	Psychiatry	10.0
MC 400	Community Medicine	9.0
ME 400	MD Research Project	3.8
OL 400	Otorhinolaryngology	5.0
OP 400	Ophthalmology	5.0
MA 400	Anaesthesiology	6.0
SEMESTER 9 and 10		
IM 500	Internal Medicine	7.9
MH 500	Paediatrics & Child Health	5.9
MS 500	Surgery	6.3
MG 500	Obstetrics and Gynaecology	6.6
OT 500	Orthopaedics/Trauma & Neurosurgery	6.8

10.3.2.3 Diploma in Nursing and Midwifery (NTA level 4 – 6) - 3 years duration

With Two Exit Levels

i. Students who exit at the end of the 2nd year will be awarded Certificate in Nursing NTA Level 5, and

ii. Those who exit at the end of the 3rd year will be awarded Diploma in Nursing NTA Level 6.

SEMESTER	MODULE NAME	MODULE CODE	CREDITS
I	Infection Prevention and Control	NMT 04101	15
	Anatomy and Physiology	NMT 04102	25
	Communication Skills	NMT 04103	10
	Nursing and Ethics	NMT 04104	5
	Nutrition	NMT 04105	3
	Basic Computer Applications	NMT 04106	3
II	Medical and surgical Nursing I	NMT04207	28
	Pharmacology	NMT04208	8
	Nursing Practice	NMT04209	15
	Emergency care	NMT04010	8
III	Midwifery I	NMT05111	20
	Child Health	NMT05112	15
	Health education and Counselling	NMT05113	14
	Community Health Nursing	NMT05114	5
	HIV/AIDS	NMT05115	-
IV	Midwifery II	NMT05216	22
	Management and Leadership	NMT05217	14
	Mental Health	NMT05218	20
	Infection Control	NMT05219	10
V	Biochemistry	NMT06120	3
	Medical and Surgical Nursing II	NMT06121	15
	Midwifery III	NMT06122	20
	Community Health Nursing II	NMT06123	10
	Entrepreneurship	NMT06124	5

VI	Research, Epidemiology and Biostatistics	NMT06225	25
	Parasitology and Entomology	NMT06226	12
	Leadership and Management	NMT06227	15
	Mental Health Nursing	NMT06228	15

10.3.2.4 Diploma in Pharmaceutical Sciences (NTA level 4 – 6) - 3 years duration

10.3.2.5 Basic Technician Certificate in Pharmaceutical Sciences

The curriculum of the Diploma in Pharmaceutical Sciences upon successful completion of the first year and exit of the programme, the student is eligible to be awarded with the Technician Certificate in Nursing.

10.3.2.6 Technician Certificate in Pharmaceutical Sciences

The curriculum of the Diploma in Pharmaceutical Sciences upon successful completion of the Second year and exit of the programme, the student is eligible to be awarded with the Technician Certificate in Nursing.

10.3.2.7 Technician Certificate in Nursing

The curriculum of the Diploma in Nursing and Midwifery upon successful completion of the first year and exit of the programme, the student is eligible to be awarded with the Technician Certificate in Nursing.

10.3.3. Facilities

a. **Laboratories**: The College has well equipped & state of the art laboratories housing specialized apparatus, instruments and devices needed to fulfill its class of superior medical education. The following exclusive laboratories are available in the College.

   i. Skills Laboratory (Anatomy, Clinical)
   ii. Information and Communication Technology (ICT) Laboratory
   iii. Anatomy Laboratory
   iv. Biochemistry Laboratory
   v. Physiology Laboratory
   vi. Microbiology Laboratory

b. **Library**: The college library is adequately stacked with a variety of 12,280 volumes of books, reference books and22,000 e–books. The students have access to the digital library through the exclusively provided computers. The library can accommodate 186 students at a time. The library is kept opened for the students to assess the resources from 7:00 am to 7:00 pm on all working days.

c. **Canteen**: SJCHS has a spacious canteen with a seating capacity of 60at a time. The canteen serves the entire college with a wide range of menu to the staff and students. It functions on all working days except on Sundays.

d. **Hostel**: The College has outsourced the accommodation for 100femalestudents. However, expense for rent, consumables like food, electricity, water and electric and electronic appliances must be borne by the students themselves. Hostel routines call for extreme self-disciple for the hostellers. The hostellers need to compulsorily abide by the norms and rules of the hostel, any willful damages caused would attract adequate compensation and would be borne by the student independently / collectively.

10.3.4 Co-Curricular and Extra-Curricular Activities:

a. **Students Participation**: The College, facilitates the students in taking part in academic / administration for good governance by involving the student representatives of each classes in the following

- Class Committee
- Course Committee
- Department Examination Board meetings

The representatives of the Student Organisation of St. Joseph College of Health Sciences (SJCHS) take part in the College Examination Board and Award Committee meetings. The Students Organisation also actively takes part in the College Advisory Board and in the University Senate meetings to contribute in enhancing the quality of education and transparency in governance.

b. **Forums, Clubs and Associations**: The College also promotes the students in a wide range of attributes such as spiritual, health, sports etc. with a view of developing their personality by providing opportunities through various clubs. Its activities are guided and coordinated by designated experts. Some of the Clubs, Forums and Associations are universal for all college students, while some are specific to some departments only.

   The clubs, forums and associations functioning at the College are:

   i. Computer Club
   ii. Green Revolution Club
   iii. Sports Club
   iv. Social Awareness Club
   v. Prayer Club
   vi. Dancing Club

c. **Sports and Game**: The College shows special importance to bring the latent talents of the students through sports and games. Thus, sports and games are provided to the students in tune with the healthy mind and healthy body. The physical education department aims at the physical, intellectual, spiritual and moral development of a student to develop the team spirit, discipline and spirit of sportsmanship in them. The students are trained in their field of interest by a professionally qualified Physical Education Staff on all working days after the

college hours and also on Saturdays. The Sports Committee of the College conducts and encourages students to participate in the intra-department, inter – department and inter-collegiate level in the National games such as Tanzania Universities Sports Association (TUSA) and win championships.

10.3.5. Placement and Training Cell :

The College has established an exclusive cell for the development of the students in Medicine and Nursing and will be acquainting the students with the needful skills, soft skills to prepare themselves to excel in their career for the better employment or to become a successful entrepreneur.

RECENT UPDATE FROM AMMENDMENTS IN COUNCIL, SENATE

I. AMMENDMENTS FOR APPROVAL BY THE COUNCIL

Ref : University Charter Functions 37.3 and Procedure 37.4

1. The SJUCHS was started in November 2015 admitting students into Doctor of Medicine(MD) and Diploma in Nursing Programmes. The MD programme is adopting the Muhimbili University for Health and Allied Science (MUHAS) curriculum and for which SJUIT is paying 10% of the Tuition fees as royalty.
2. There were demands from the students of BOKO campus requesting that, since, we are using MUHAS curriculum, the assessments should also be similar to that of MUHAS examination regulations in respect of Theory, Theory cum Practicals (Basic Sciences and Clinical Sciences courses).
3. So far, these students were assessed as per the SJUIT examination regulations.
4. As the students of SJUCHS were persistently requesting to align the examination regulations with that of MUHAS examination regulations, it has become necessary that the examination regulations need to be revised without compromising on the quality.
5. As the diploma programme results from SJUCET were available, who will be eligible to apply for registration into lateral entry mode, their names were also approved by the Executive Senate Committee to enable the list to be approved by TCU as per requirement.

In this connection to address to these issues immediately, SJUIT called for the Executive Senate Committee on 10th August 2016 with the following two point agendum 'Revision of Examination Regulation' for the MD programme and 'Approval of Diploma and Certificate course' for admission into lateral entry' with reference to the functions and procedures of senate Executive as envisaged in the University Charter vide Article 37.3 and 37.4.

Please find the existing exam regulation and the Executive Senate Committee recommended amendment for the approval by the August Members of the Council.

AMENDMENTS

(i) THEORY COURSE

- *In Formative assessments (Internal) a student shall pass the examination in theory subjects if he/she obtains an aggregate of 50% mark or more in the CAT's and an aggregate of 50% mark or more in the Assignments independently.*

In Summative assessments (External) a student shall pass the examination in theory subjects if he/she obtains a minimum of 50% mark or more.

(ii) THEORY CUM PRACTICAL (BASIC SCIENCE) COURSES

Existing Procedure	Revised Procedure
• *In Formative assessments(Internal) a student shall pass the examination in theory cum practical (basic science) courses if the aggregate of theory, CATs, assignment and practical is* ***50% or more provided he scores an aggregate of 50% in the theory, 50% in the assignments and 50% in the practical individually.*** • *In Summative assessments(External) a student shall pass the examination in theory cum practical (basic science) courses (subjects) if the aggregate of theory and practical is* ***50% or more provided he scores a minimum of 50% in the theory and 50% in the practical****.* • *A student shall fail the examination in theory cum practical (basic science) subjects with an aggregate mark $\underline{\geq}$ 50%, if he/she has a score <50% either in theory or practical component of the subject.*	• *In Formative assessments(Internal) a student shall pass the examination in theory cum practical (basic science) courses (subjects) if the aggregate of theory, assignment and practical is 50% or more provided he scores an* ***aggregate of 40% in the theory, 40% in the assignments and 40% in the practical individually.*** • *In Summative assessments(External) a student shall pass the examination in theory cum practical (basic science) courses (subjects) if the aggregate of theory and practical is* ***50% ormore provided he scores a minimum of 40% in the theory and 40% in the practical.*** • *A student shall fail the examination in theory cum practical (basic science) subjects with an aggregate mark $\underline{\geq}$ 50%, if he/she has a score <40% either in theory or practical component of the subject.*

(iii) THEORY CUM CLINICAL (CLINICAL) COURSES

• *In Formative assessments(Internal) a student shall pass the examination in theory cum clinical (clinical) courses if the aggregate of theory, assignment and clinical is* ***50% or more provided he/she has an aggregate of 50% in the theory, 50% in the assignments and 50% in the clinical component (practical) individually .***	• *In Formative assessments(Internal) a student shall pass the examination in theory cum clinical (clinical) courses if the aggregate of theory, assignment and clinical is* ***50% or more provided he/she has an aggregate of 40% in the theory, 40% in the assignment and 50% in the clinical component (practical) individually.***
• *In Summative assessments (External) a student shall pass the examination in theory cum clinical (clinical) courses if the aggregate of theory and clinical is* ***50% or more provided he/she has a minimum of 50% in the theory and 50% in the clinical component (practical).***	• *In Summative assessments (External) a student shall pass the examination in theory cum clinical (clinical) courses if the aggregate of theory and clinical is* ***50% or more provided he/she has a minimum of 40% in the theory and 50% in the clinical component (practical).***
• *A student shall fail the examination in theory cum clinical (clinical) courses with an aggregate mark $\geq$ 50% if he/she has a score <50% of the marks in theory and <50% in the clinical component (Practical) of the course.*	• *A student shall fail the examination in theory cum clinical (clinical) courses with an aggregate mark $\geq$ 50% if he/she has a score <40% of the marks in theory and <50% in the clinical component (Practical) of the course.*

(iv) FORMATIVE ASSESSMENT (INTERNALS)

- ***Passing in formative assessment is mandatory to be eligible*** *for the summative assessment which is conducted at the end of the semester.*
- *The candidates who do not meet the minimum required marks in the Formative Assessment in any course shall not be permitted to appear for its end semester examination of that particular course, and such course is declared as "****NOT ELIGIBLE****". The candidates who have not eligible course(s) shall redo the Formative Assessment process (whole examination package i.e. Theory / Practical / Assignment) in the next higher semester so as to make him/her eligible to sit for the course. The "****NOT ELIGIBLE"*** *candidates for all the courses should retake the whole course when next offered.*
  a. *The Not Eligible student in a particular course* ***should study independently*** **[without attending teaching session].**

b. *The date of Examinations and submission of assignment and practical examination are scheduled by the course staff concerned and informed to the student.*

c. *The staff and the students should follow all the assessment procedures in the time period like CAT Exams, Assignments and Practical's before the end of the subsequent semester.*

d. *At the end of the subsequent semester, based on the assessment, the staff shall have to display the internal marks of the Not Eligible student[s].*

e. *If the student becomes eligible, he/she can appear for the Supplementary Examination which will be conducted at the end of the subsequent Semester.*

(v) SUPPLEMENTARY EXAMINATIONS

- *The supplementary examination includes the whole examination package (theory and practical) which the student had done at the end of the semester and was declared failed.*
- *For students who fail the end of semester University examinations, whatever the reason, they have to do supplementary examination in all the components of the course (theory and practical).*

(vi) FORMATIVE ASSESSMENT (FA) AND SUMMATIVE ASSESSMENT (SA)

- ***To pass a course, a student has to pass FA and SA separately. Average of marks from Formative and Summative assessments will not be used for that purpose.***
- *The assessment system will be based on the Course and semester*

Allotment of Marks – MD Programme :

S/N	Modules	Assessment Type			Max Marks	Min Marks	Min (required Each)	Max Marks
1	Theory	Internal	CAT's		30	15	*50	100
			Assignment		20	10		
		External	End exam		50	25		
		External	Practical		40	20		
			Viva voce		10	5		
2	Theory Cum Practical (Basic Sciences)	Internal	CAT's	60%	20	*8	*50	100
			Assignment		10	*4		
			Practical	40%	20	*8		
		External	Written – 60%		30	*12		

			Practical – 40%		20	*8		
3	Theory Cum Clinical (Clinical Courses)	Internal	CAT's	40%	10	*4	*50	100
			Assignment		10	*4		
			Practical	60%	30	*15		
		External	Written – 40%		20	*8		
			Practical – 60%		30	*15		
4	Project Work	Internal	Project Report		50	25	*50	100
		External	Evaluation		40	20		
			Viva Voce		10	5		
5	Field	Internal	Evaluation		40	20	*50	100
		External	Evaluation		40	20		
			Viva voce		20	10		

Note : Subject to change.

Detailed Example is given below:

SN	Nature of Subject (Course)	Marks obtained in Theory	Marks obtained in Practical	Average Marks	Remark
1	Only Theory	**≥ 50%**	**NA**	**≥ 50%**	Pass
2	Basic Sciences (Theory cum and Practical)	**≥ 40%**	**≥ 40%**	**≥ 50%**	Pass
3	Clinical courses (Theory and cum Clinical)	**≥ 40%**	**≥ 50%**	**≥ 50%**	Pass
Example					
4	Only Theory	50	NA	50	Pass
5	Only Theory	49	NA	49	Fail
6	Basic Sciences (Theory cum Practical)	40	60	50	Pass
7	Basic Sciences (Theory cum Practical)	38	72	55	Fail
8	Basic Sciences (Theory and Practical)	80	38	59	Fail
9	Clinical courses (Theory cum Clinical)	40	60	50	Pass
10	Clinical courses (Theory and Clinical)	60	48	54	Fail
11	Clinical Courses (Theory cum Clinical)	38	82	60	Fail

2.0 Approval of Diploma and Certificate course for admission into lateral entry.

BATCH IX(2013-2016) DIPLOMA PROGRAMMES- JUL 2016

BRANCH	TOTAL STRENGTH	NUMBER OF STUDENTS					
		FIRST CLASS	UPPER SECOND CLASS	LOWER SECOND CLASS	PASS	ELIGIBLE FOR AWARD	IN ELIGIBLE FOR AWARD
CIVIL	**146**	NIL	67	46	NIL	**113**	33
EEE	**69**	NIL	23	38	1	**62**	7
ECE	**64**	NIL	16	18	1	**35**	29
CSE	**84**	1	22	48	5	**76**	8
IT	**51**	NIL	2	25	9	**36**	15
TOTAL		**1**	**130**	**175**	**16**	**322**	**92**

First Class : 4.4 to 5.0 ; Upper Second Class : 3.5 to 4.3; Lower Second Class : 2.7 to 3.4; Pass : 2.0 to 2.6

Out of a total of 414 students from the regular batch, 322 students have successfully completed the diploma programme and 92 students have supplementary. From the successful students, 131 students have scored 3.5 CGPA and above and they are eligible for their admissions to the Four year degree programme as lateral entry students and they can join in the second year of the programme.

From the previous batch supplementary students, 7 students have successfully completed the diploma programme.

In the Certificate course, all 21 students from the Construction Supervision course have scored above 3.0 CGPA. 4 out of 7 students from the Electrical Installation and Servicing course have scored above 3.0 CGPA.

Submitted for the approval of the honourable members of the SJUIT University Council.

II. AMMENDMENTS OF SENATE

8.12. AMENDMENTS IN THE EXAMINATION REGULATIONS

8.12.1 Examination Fee:

Directive: As per the directives for the implementation of Examination fees to be included in the Tuition fees. Those students who are having supplementary only need to pay for Supplementary Examination fees. The senate is requested to consider and pass the motion (i) under article 36.1.VI.

Resolution:

The senate is requested to note.

Senate APPROVED subject to management studying rates used by other private universities and come out with a comparative rate to be included in the fees structure under the title of the examination fee and to be charged only once in a year. Students who are having supplementary MUST pay for Supplementary Examination per paper.

8.12.2 Continuous Assessment Test (CAT):

Proposal: As per the recommendations by Quality Assurance Audit, it is decided to have **two (2)** Continuous Assessment Test for Theory modules and **two (2)** Assignments in each module instead of having **three (3)** Continuous Assessment Tests (CAT), **Ten (10)** assignments and **one (1)** Model Examination effective this coming semester. This will facilitate more hours in teaching. The senate is requested to consider and to pass the motion (ii) under article 36.1.VI. of the University Charter

Resolution:

Approved the proposal to be adopted with immediate effect.

8.12.3 New Examination Guidelines:

Proposal: It was reported that TCU has been insisting during their visits on Quality Assurance Audit to revise the Examination Guidelines in line with the procedures adapted in other universities.

This new Examination Guidelines may be passed under the motion (iii) Article 36.1.VIII of the charter with immediate effect, which shall be beneficial to the students without compromising on the quality.

Resolution:

Approved subject to the following:

- ***(i)*** ***On regulation 3.3,*** *senate recommended that attendance of 85 % should be attained in lectures, seminars; tutorials and practical (remove 95%).*
- ***(ii)*** *On 4.1, to include examination even in a single module*
- ***(iii)*** *On 4.6, permission shall be granted by the university after consultation with the principal and heads of the department, dean of students.*
- ***(iv)*** *On 8.1 subject to confirmation by senate*
- ***(v)*** *8.2 define unauthorized material to including phone, laptop etc...*
- **(vi)** ***8.3 penalties to be "discontinued" was newly introduced****.*
- ***(vii)*** ***11.0 progress from year to year senate approved discontinuation based on GPA to replace the break system.***
- ***(viii)*** ***11.0 progress from year to year senate approved, if a candidate who fails in examination(s) which is/are required to make the minimum pass credits for any academic unit after three attempts shall be BARRED from continuing into subsequent academic semester***

The examination regulations were approved to start immediately, mean while the controller of examination was required to give orientation on the new examination regulations to the college.