Dar es Salaam Institute of Technology

Focus Your Future at DIT

Prospectus for Academic Year 2017/2018

Fully Accredited by the National Council for Technical Education (NACTE)

Some of the training and research facilities available at DIT

Start your future today

DIT is committed to provide a learning environment that promotes a passion for excellence in professionalism and enduring knowledge which stimulates creativity and innovation consistent with the country and regional realities. We embrace competence based education and training approach. The Institute is fast establishing itself as the ideal tertiary institution for the holistic students' development.

We are focused on nurturing the growth of academic excellence and instilling the importance of scientific, engineering skills and entrepreneurship.

DAR ES SALAAM INSTITUTE OF TECHNOLOGY

STATEMENT OF THE PRINCIPAL

Dar es Salaam Institute of Technology (DIT) was established by an Act of Parliament No.6 of 1997 as a high technical training institution in Tanzania. The vision of Dar es Salaam Institute of Technology (DIT) is to become the leading technical education institution in addressing societal needs. Among others, the mission of DIT is to provide the development and usage of appropriate technology that meets national, regional and international needs and standards through skills and practical-oriented training, research and consultancy. Besides, DIT is positioned to respond to a call by the President of 5th phase Government of the United Republic of Tanzania (URT), His Excellence Dr. John Pombe Joseph Magufuli, to spearhead realization of industry economy by 2025, as spelt out in his inaugural speech to the Parliament of Tanzania on 20th November, 2015.

DIT understands that such a mission could only be realized if local technical training institutions will significantly increase students' enrollment and improve teaching methodology. We are therefore planning to increase our enrollment from 4000 to 6000 students by 2021 through extending our services to various parts of the country including Dar es Salaam, Mwanza, Songwe, Dodoma and Coastal regions. Besides, DIT envisions putting in place support services for business start-ups for its students after completion of training, and similar measures for easing labour-entry and job-retention. Such initiatives are the testimony of DIT willingness and readiness to participate in making the intended efforts towards industrialization in our country a successful reality. As a public institution whose activities are funded by public funds, DIT is indispensable partner in the industrialization agenda.

Currently, DIT offers twenty three (23) academic programmes in the fields of maintenance management, computational science and engineering, civil engineering, computer engineering, electrical engineering, mechanical engineering, science and laboratory technology, oil and gas engineering, information technology, mining engineering, biomedical equipment engineering, communication system technology, renewable energy technology, multimedia and film technology, biotechnology, and food science and technology. As part of the expansion programme, DIT this academic year has established a new and marketable ordinary diploma training programme in leather product development technologies at Mwanza Campus. One reason for this is because the field has strong linkages with agricultural sector. It is a labour intensive, thus absorbing labour from the agricultural sector, and has major potential and low entry barriers.

Technical training at DIT is competency based, characterized by ability to carry out an occupational activity, but still it needs to be consolidated. In order to achieve this, we are fostering a teaching factory approach whereby technical training is interactively linked to a real life factory business. This is realized by either establishing a virtual or physical factory. The former is achieved through industrial linkages. It is also envisioned to couple the training with technology incubators as they provide space, partnerships and networks to build a national community in which project/research students, innovators, entrepreneurs, scientists, technologists, professionals and investors can continuously exchange knowledge, share best practices, develop innovative businesses and expand their networks both locally, regionally and globally. The strategies are aimed at providing engineering or technical training and hands-on practice under industrial conditions for DIT students, while taking up research/project results and industrial learning activities for engineers and blue-collar workers.

DIT is therefore committed as an agent of industrialization, a progressive and customer-centered higher learning institution.

Prof. Preksedis Marco Ndomba
PRINCIPAL

Vision

- The vision of Dar es Salaam Institute of Technology (DIT) is to become the leading technical education Institution in addressing societal needs.

Mission

- The mission of Dar es Salaam Institute of Technology is to provide competence based technical education through training, research, innovation and development of appropriate technology.

Function

- To provide facilities for study and training in the principles, procedures and techniques and conduct training programmes in Electrical Engineering, Civil Engineering, Mechanical Engineering, Computer Engineering, Science and Laboratory Technology, Electronics and Telecommunications Engineering, and such other related disciplines as the Institute may from time to time decide.
- To engage in applied research and development in the disciplines specified above.
- To provide consultancy services to the public.
- To conduct examinations and grant awards of DIT as approved by the National Council for Technical Education
- To perform all such other functions as stipulated in the Act that established the institute

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Dar es Salaam Institute of Technology Main Campus

Dar es Salaam Institute of Technology has three campuses, Dar es Salaam, Mwanza and Myunga campus in Songwe. Dar es Salaam (main) campus offers a wide range of full and part time applied science engineering and professional training programs leading to the awards of Ordinary Diploma, Bachelor of Engineering, Bachelor of Technology and Master Degree programs. These programs are offered by six academic Departments namely Civil, Electrical, Electronics & Telecommunications, Mechanical, Computer Studies, and Laboratory Science & Technology. The General Studies Department supports the academic departments through teaching courses in Mathematics, Communications Skills, research and Entrepreneurship Education.. In addition various short term professional training courses are offered by DIT through the Institute Consultancy Bureau (ICB) and the India Tanzania Center of Excellency in Information Communication Technology) ITCoEICT.

Currently, DIT Mwanza campus offers an Ordinary Diploma in Science and Laboratory Technology and in this new academic year 2017/18, a one year Leather based programme, Basic Technician Certificate in Leather Products Technology, leading to a National Technical Award (NTA Level 4) has been introduced. This adds up to the existing courses, Leather Craft Tanning, Basic Shoe and Leather Goods Making, and Information and Communication Technology. DIT is expecting in the near future to start offering vocational skills training programmes at new Myunga campus and tailor made training courses.

DIT Myunga Campus , Songwe Region

DIT Mwanza Campus

CHAPTER ONE

INTRODUCTION TO DAR ES SALAAM INSTITUTE OF TECHNOLOGY

1.1 Brief Information about DIT

The Dar es Salaam Institute of Technology (DIT) is located in the Dar es Salaam city centre, at the junction of Morogoro Road and Bibi Titi Mohamed Street. Historically, DIT was established in 1997 by the Act of Parliament, "the DIT Act No.6 of 1997" to replace the Dar es Salaam Technical College, which had a long history of technical training in Tanzania. This history dates back to 1957 when its predecessor; the Dar es Salaam Technical Institute was established with the main task of providing vocational training in the country. The Institute later expanded its scope to offer technical secondary school courses and training for Technical Assistants before it was upgraded in 1962 to become the Dar es Salaam Technical College (DTC), the first formal technical training institution in the country.

Part of the responsibilities of DTC at the time of its inception was to train technicians under the London City and Guilds Training Program. In order to enhance its contribution to the national capacity building in technical manpower, the College in 1964 introduced two and a half year Ordinary Technician Diploma (OTD) programmes in Civil, Electrical, Telecommunications and Mechanical Engineering. These were later upgraded into three year Full Technician Certificate (FTC) courses in 1970/1.

Later, the College also introduced Diploma in Engineering (DE) programs in the four traditional engineering disciplines to provide post-FTC technical training. Courses for Laboratory Technology and Diploma in Technical Education (DTE) were also introduced. The position of DTC in the provision of higher technical education was consolidated in 1991 when the corresponding Advanced Diploma in Engineering (ADE) programs replaced the Diploma in Engineering (DE) courses. Today, DE and ADE graduates can be found in almost all engineering firms/institutions and positive feedback is available from the respective employers to indicate their overall good performance.

The current political and economic trends, as well as the new technological changes have increased competition in the demand for, and supply of quality products including technical education and services. Under such a competitive environment, the leading position of DTC in the provision of higher technical education could not be sustained for long, with its old set-up and mission. Hence a new institution was therefore necessary to replace the Dar es Salaam Technical College; the institution that can effectively address the current technological developments, provide competitive academic outputs in terms of quality technical training, applied research and expertise services to the community. The Dar es Salaam Institute of Technology was therefore established in 1997 to realize that aspiration, as guided by its vision and mission.

DIT is a fully accredited institution by the National Council for Technical Education (NACTE). Currently, DIT offers a wide range of full-time, part-time and professional applied sciences and engineering training courses /programmes. The Institute has replaced the FTC and ADE programmes with Ordinary Diploma and now started offered Bachelor of Engineering programmes respectively (i.e National Technical Awards (NTA) Level 4-9) in line with the NACTE competence based modular training system. In addition, the Institute has started offering Bachelor of Technology in Laboratory Sciences. Recently the Institute has started offering the following programmes: Master in Computational Science and Engineering Master of Engineering in Maintenance Management, Bachelor of Oil & Gas and Diploma programme in Biotechnology, Food Science and Technology. In the next academic year 2018/2019 the institute is expecting to offer Master of Engineering in Sustainable Energy Engineering Programme.

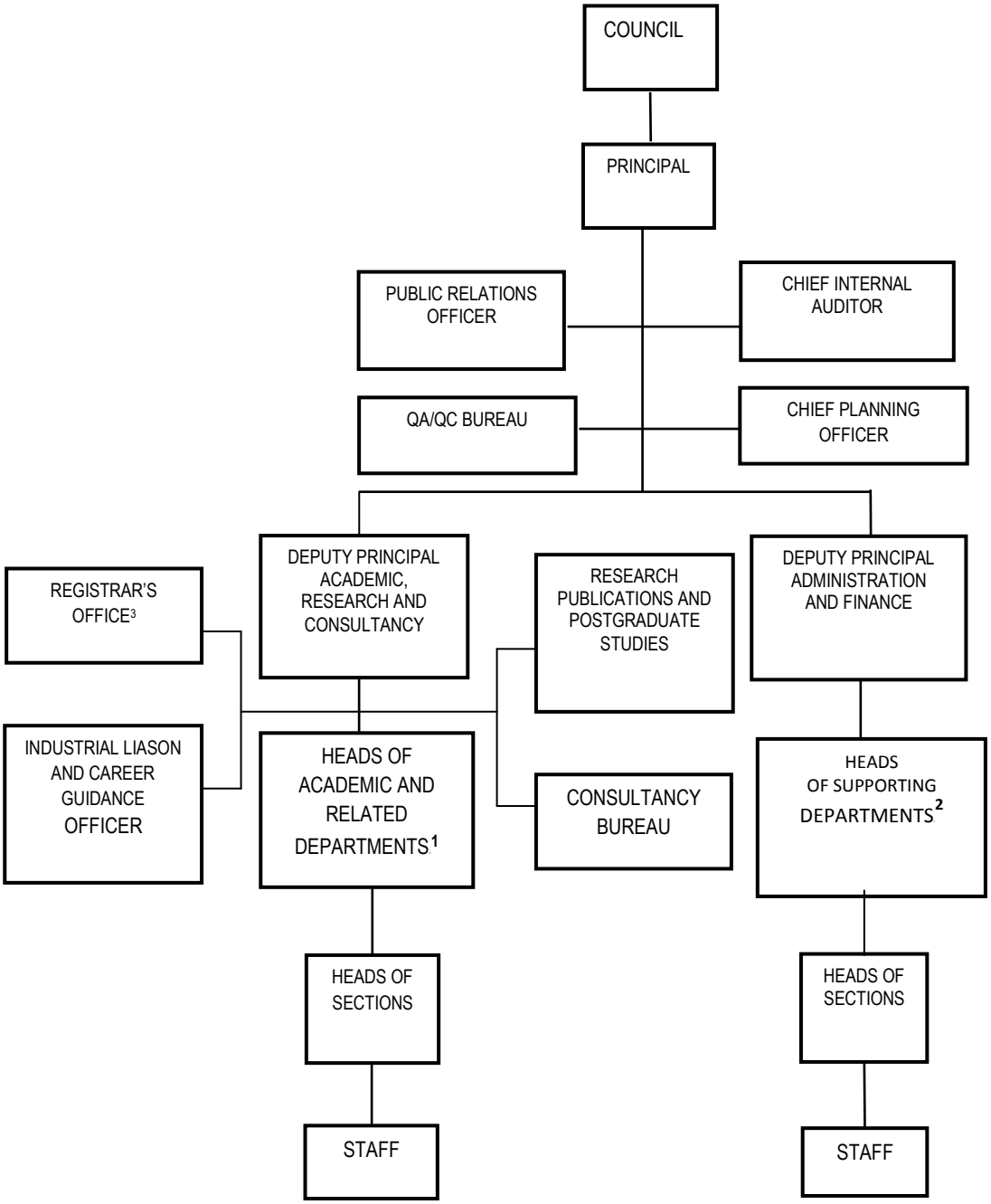
The expectations and aspirations of Tanzanians towards DIT are very high because for the long time the institute has been producing graduates who meet the market demand. As expressed in the National Technical Education and Training Policy of 1996, National Higher Education Policy of 1999 and Tanzania Development Vision 2025 of 1999 advancement in science and technology are key areas to focus on; as they have a positive impact to social economic growth in any country also ensures a knowledge-based economical growth. In order for DIT to match with its new structure, roles and functions, current market demand. Training curricula are

reviewed after every five years by incorporating various stakeholders' views.

This Prospectus therefore, describes the main features of the DIT in line with the customers' and stakeholders' interests. It provides an outline of academic programmes, admission requirements, procedures and regulations to be met for one to get admission and graduate at the Institute. In addition, examination regulations, course programmes, course duration list of academic staff and other relevant information are also provided.

1.2 Organization Structure of DIT

The top organ of the DIT is the Council followed by the Chief Executive Officer (Principal) who is supported by the Deputy Principal (Academic, Research and Consultancy) and the Deputy Principal (Administration and Finance). The two Deputy Principals are supported by Heads of various Departments who overseas teaching, learning and resources of the respective Department. Organization structure of DIT is shown in Figure 1.2.



1. **List of Academic and Related Departments**
   - Civil Engineering
   - Computer Studies
   - Electrical Engineering
   - Electronics & Telecommunications Engineering.
   - Mechanical Engineering
   - Science & Laboratory Technology
   - General Studies
   - Research, Publications and Postgraduate Studies
   - Industrial Liaison and Career Guidance
   - Library Services
   - Institute Consultancy Bureau

2. **List of Supporting Departments**
   - Accounts
   - PMU

List of Offices in the Registrar's Office

- Examination
- Admission

Figure 1.2 Organization Structure of DIT

1.3 Organization of the Prospectus

This prospectus provides an outline of the academic programmes currently offered by DIT and the near-future plans towards the realization of the mission of the Institute with respect to training in Chapter 2. It also provides information on procedures and regulations for admission to such programmes and the corresponding fees in Chapters 3 and 4 respectively.

Chapter 5 provides Examination Regulations with details of all matters related to examinations conducted by the Institute for various programmes leading to the awards of NTAs 4-9 levels namely; the Ordinary Diploma, Bachelor Degree and Master Degree programmes. More information regarding procedures for offering master degree programmes at DIT are detailed in the postgraduate guidelines.

Chapter 6 gives the profiles of academic Departments and other related units of the Institute including a list of academic staff and course outlines for academic programmes offered by respective Departments. The inputs of the Prospectus as highlighted above are complemented with some additional and general information for the DIT dispensary, accommodation and catering services available to students which are presented in Chapter 7. Chapter 8 presents general information regarding students' prizes & awards, students, important information for students and the center of Excellency in ICT. Chapter 9 has the information about Mwanza campus. The academic calendar for the academic year 2017/2018 for offered programmes is shown on chapter 10.

CHAPTER TWO

ACADEMIC PROGRAMS OFFERED

DIT is fully accredited by the National Council for Technical Education (NACTE) to run and grant awards to successful candidates as per the institute's and NACTE's regulations. Awards offered are National Technical Award Level (NTA) 4 – 6 (Ordinary Diploma Programmes), 7 – 8 (Bachelor Degree Programmes) and NTA 9 (Master Degree Programmes).

2.1. Basic Technician Certificate and Technician Certificate

The Basic Technician Certificate and Technician certificate are part of the Ordinary Diploma. Students who wish to exit or fail to attain an Ordinary Diploma but have successfully fulfilled the requirements for awards of Basic Technician Certificate (NTA 4) or Technician Certificate (NTA 5) shall be awarded the awards qualified for.

2.2. Ordinary Diploma Programmes

i. Ordinary Diploma in Civil Engineering
ii. Ordinary Diploma in Computer Engineering
iii. Ordinary Diploma in Electrical Engineering
iv. Ordinary Diploma in Electronics and Telecommunications Engineering
v. Ordinary Diploma in Mechanical Engineering
vi. Ordinary Diploma in Science and Laboratory Technology
vii. Ordinary Diploma in Mining Engineering
viii. Ordinary diploma in Biomedical Equipment
ix. Ordinary Diploma in Information Technology
x. Ordinary Diploma Renewable Energy Technology
xi. Ordinary Diploma Communication System Technology
xii. Ordinary Diploma Multimedia and Film Technology
xiii. Ordinary Diploma in Food Science Technology
xiv. Ordinary Diploma in Biotechnology
xv. Diploma in leather Product Development technologies (only offered at Mwanza campus)

2.3. Higher Diploma

Is part of the Bachelor Degree Programme. Students who wish to exit or fail to attain Bachelors Degree but have successfully fulfilled the requirements for the awards of a Higher Diploma shall be awarded the Higher Diploma (NTA 7).

2.4. Bachelor Degrees Programmes (NTA 8)

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

i. Bachelor of Engineering (B.Eng) in Civil Engineering
ii. Bachelor of Engineering (B.Eng) in Computer Engineering
iii. Bachelor of Engineering (B.Eng) in Electrical Engineering
iv. Bachelor of Engineering (B.Eng) in Electronics and Telecommunications Engineering
v. Bachelor of Engineering (B.Eng) in Mechanical Engineering
vi. Bachelor of Technology (B.Tech) in Laboratory Sciences
vii. Bachelor of Engineering in Oil and Gas Engineering

2.5. Post-graduate Studies

In response to the market demands capacity and technological challenges, DIT has two postgraduate programs,

i) Master of Engineering in Maintenance Management and
ii) Master of Engineering in Computational Science and Engineering.

These programs are offered by coursework and dissertation, and the course duration is 18 and 24 months respectively.

In the next academic year 2018/2019 a new Master of Engineering Degree Programme in sustainable energy Engineering is expected to be offered.

The detailed information on the courses offered, duration, awards granted and related remarks are summarized in Table 2.1

Table 2.1: A summary of Courses Offered at DIT

	PROGRAMMES OFFERED	PROGRAMME DURATION	AWARD	REMARKS
1	Basic Technician Certificate in Leather Products Technology	1 academic year (Two Semesters)	Certificate	
2	Ordinary Diploma in Civil Engineering	Six semester offered in three academic years	Basic Technician Certificate (Two Semesters) Technician Certificate (Two Semesters) Ordinary Diploma (Two Semesters)	Basic Technician Certificate and Technician Certificate are awarded to students who wish to exit or fail to obtain a Technician Certificate or an ordinary diploma but have successful fulfilled the requirements for a basic Technician Certificate. Ordinary Diploma is awarded to students who have successfully fulfilled the requirements for the Ordinary Diploma in the respective programmes
3	Ordinary Diploma in Computer Engineering			
4	Ordinary Diploma in Electrical Engineering			
5	Ordinary Diploma in Electronics and Telecommunication Engineering			
6	Ordinary Diploma in Mechanical Engineering			
7	Ordinary Diploma in Science and Laboratory Technology			
8	Ordinary Diploma in Mining Engineering			
9	Ordinary Diploma in Biomedical Equipment Engineering.			
10	Ordinary Diploma in Information Technology			
11	Ordinary Diploma in Renewable Energy Technology			
12	Ordinary Diploma in Communication System Technology			
13	Ordinary Diploma in Multimedia and Film Technology			
14	Ordinary Diploma in Food Science and Technology			
15	Ordinary Diploma in Biotechnology			
16	Bachelor Degree in Civil Engineering	Bachelor Degree courses are offered in eight	NTA 7: Higher Diploma (Six Semesters) for candidates with form	Higher Diploma is awarded to students who wish to exist or fail to
17	Bachelor Degree in Computer Engineering			
18	Bachelor Degree in Electrical Engineering			

19	Bachelor of Eng. in Electronics and Telecommunication Engineering	semesters covered in four years for Engineering Programmes for students admitted by form six qualifications and students who are changing programme of study Six semesters for 3 years for Bachelor of technology and BEng candidates admitted by NTA 6 qualifications or FTC	six admission qualifications, Four semesters for candidates with Ordinary Diploma (NTA Level 6) or Full Technician Certificate (FTC) admission qualifications. NTA 8: Bachelor Degree (Two Semester)	obtain a degree but have successfully fulfilled the requirements for a Higher Diploma in Engineering. Bachelor Degree is awarded to students who have successfully fulfilled the requirements for the Bachelor Degree in the respective programmes.
20	Bachelor of Eng in Mechanical Engineering			
21	Bachelor of Technology in Laboratory Sciences			
22	Bachelor of Engineering in Oil and Gas Engineering			
23	Master of Engineering in Maintenance Management	Two semesters and six months of dissertation	Master of Engineering in Maintenance Management	These Programmes are offered by coursework and dissertation.
24	Master in Computational Science and Engineering	Three semesters and six months of dissertation	Master in Computational Science and Engineering (MCSE)	

CHAPTER THREE

ADMISSION REGULATIONS

3.1. Minimum Entry Qualifications for Ordinary Diploma (NTA LEVEL 4-6) Programmes

Candidates may join the Ordinary Diploma (NTA LEVEL 4-6) programmes offered by DIT through the Direct Entry Scheme.

B.1: Minimum Entry Requirement for Basic Technician Certificate in Leather Products Technology

Holder of Certificate of Secondary Education Examination (CSEE) with at least four (4) passes (i.e. D grade or higher) in Physics/Engineering Science, Mathematics, Chemistry or English AND any other subject pursued at the same sitting.

3.1.1 Direct Entry Scheme

In order to qualify for admission under the Direct scheme, a candidate must be a holder of a good Certificate of Secondary Education (CSE) with a minimum pass of "C" grade (or 9 points based in the following conversion: (A=1, B=2, C=3, D=4 for applicants who completed Form IV before 2013) and (A=1, B^{+}=2, B=3 C=4, D=5 for applicants who completed Form IV in 2013 to date) in the following three subjects; Physics/Engineering Science, Mathematics and Chemistry or English, or must have a good General Certificate Course in Engineering (GCE).

For admission into the Ordinary Diploma (NTA LEVEL 4-6) in Science and Laboratory Technology, Biomedical Equipment Engineering and Food Science and Technology applicants must have passed chemistry and Biology in addition to the above requirement.

3.2. Minimum Entry Qualifications for Bachelor Degree (NTA Level 7- 8) Programmes

Candidates can join the Bachelor Degree (NTA Level 7- 8) programmes offered by DIT through the Direct Entry Scheme

3.2.1 Direct Entry Scheme

In order to qualify for admission into Bachelor Degree (NTA Level 7- 8) three (3) years programmes, the following minimum entry qualifications are required:-

(i) Candidates applying for Bachelor of Engineering must be holders of Ordinary Diploma (NTA Level 6) in Engineering majoring either: Civil or Mining or Computer or Electrical or Electronics & Telecommunications or Mechanical or Water Supply and Sanitation or information Technology offered by DIT or Biomedical Equipment Engineering or its equivalent from a recognized institution with minimum of Second Lower Class (Grade Point Average (GPA) of 3.0) from a NACTE recognized Institution and at least 4 passes or three (3) credit passes in relevant subjects at Certificate of Secondary Education (CSEE).

Or

Holders of Full Technician Certificate (FTC) in Engineering majoring either: Civil or Computer or Electrical or Electronics & Telecommunications or Mechanical or Water Resources or its equivalent from a NACTE recognized Institution with an average of minimum pass of C or an average of minimum 3 points based on the following conversion scale: A=5, B=4, C=3, D=2 and at least 4 passes or three (3) credit passes in relevant subjects at Secondary Education (CSEE).

(ii) Candidates applying for Bachelor of Technology in Laboratory Sciences must possess Ordinary Diploma (NTA Level 6) in Technology majoring either: Science and Laboratory Technology or its equivalent from a recognized institution with minimum of Second Lower Class (Grade Point Average (GPA) of 3.0) from a NACTE recognized Institution and at least 4 passes or three (3) credit passes in relevant subjects at Certificate of Secondary Education (CSEE).

Or

Holder of good Full Technician Certificate (FTC) in Technology majoring either: Science and Laboratory or its equivalent from a recognized institution an average of minimum pass of C or an average of minimum 3 points based on the following conversion scale: A=5, B=4, C=3, D=2 and at least 4 passes or three (3) credit passes in relevant subjects at Secondary Education (CSEE).

(iii) Candidates applying for Bachelor Degree in Oil and Gas Engineering must

possess Ordinary Diploma in Engineering (NTA Level 6) majoring either: Civil, Mining, Electrical or Mechanical with minimum of Second Lower Class (Grade Point Average (GPA) of 3.0) from a NACTE recognised Institutions.

Or

Holder of good Full Technician Certificate (FTC) in Engineering or Technology majoring either: Civil or Mining or Electrical or Mechanical from a recognised Institution with an average of minimum pass of C or an average of minimum 3 points based on the following conversion scale: A=5, B=4, C=3, D=2.

In order to qualify for admission into Bachelor Degree (NTA Level 7- 8) four (4) years programmes, the following minimum entry qualifications are required:-

(iv) Holders of Advanced Certificate of Secondary Education (ACSEE) in the combination of Physics, Chemistry and Mathematics (PCM) or Physics, Geography and Mathematics (PGM) with Principal Pass in Mathematics and Physics from the same sitting with a total of not less than 4.0 points based on the following conversion scale: (A=5, B=4, C=3, D=2, E=1, S=0.5, F=0 for candidates who completed Form VI before 2014) and (A=5, B^{+}=4, B=3 C=2, D=1, E=0.5, F=0 for candidates who completed Form VI in 2014 to date). Selected candidates will be required to undergo a four year programme.

or

(v) Holders of Ordinary Diploma (NTA Level 6) or Full Technician Certificate (FTC) who meet criteria 3.2.1 (i) above wishing to change programme of study.

3.3. Procedures for Application and Admission

3.3.1. Direct Entry Scheme

(i) Candidates applying for Bachelor Degree programmes must apply through the DIT On-line System Management (OSIM-SAS. The modality of application is found on DIT website: www.dit.ac.tz

(ii) Ordinary Diploma Candidates are required to apply through DIT online link of **http://admission.dit.ac.tz** in which the information about the modality and procedures for application will be accessible. For more information visit DIT website: **http://www.dit.ac.tz** whereby candidates are required to attach scanned original relevant certificates i.e. CSEE/GCE, ACSEE, valid National (for those who recently completed their secondary education) Examination results slips, birth certificates as well as scanned personal passport size photographs taken within the last six months.

(iii) Candidates applying for readmission at different NTA levels are required to obtain application forms at the Institute Registrar's office or may be downloaded from our Website: http://www.dit.ac.tz. All applications with all necessary requirement/certificates are processed by different boards and finally selected applicants are notified.

(iv) All Ordinary Diploma online applications must be accompanied by an original scanned bank pay-in slip of a non-refundable application fee of TSh. 10,000/= for Tanzanian applicants, USD10 for non-Tanzanian payable the to Dar es Salaam Institute of Technology through any branch of CRDB Bank account No 0150408417800. Bachelor Degree candidate will follow the application fees that will be announced by TCU.

(v) All interested candidates are required to online fill the application forms and submit within the announced deadline.

(vi) Non disclosure of details or provision of false information to any of the sections in the application form if discovered shall render the candidate's registration with the Dar es Salaam Institute of Technology cancelled.

(vii) The applications are scrutinized and ranked according to the performance in terms of qualifications and the availability of admission chances

3.4. Admission requirements and procedures for Master Degree Programmes

3.4.1. Minimum Entry Qualifications to join Master of Engineering in Maintenance Management Programme

i. Applicants must be holders of Bachelor of Engineering degree either in civil, electrical, mechanical or equivalent; with a GPA of at least 3.0 or its equivalent from any other accredited higher learning Institutions. **OR**

ii. Applicants with a Bachelor of Engineering degree in either; civil, electrical, mechanical or equivalent; with at least 3.0 GPA, and must have not less than 3 years working experience after graduation. **OR**

iii. Holders of Advanced Diploma of Engineering in; civil, electrical, mechanical, or equivalent from an accredited higher learning institution with a PASS and a minimum of five years working experience after graduation.

3.4.2. Minimum Entry Qualifications to join Master of Engineering of Computational Science and Engineering

j. Applicants must be holders of a Bachelor degree in Engineering, Science or equivalent with a GPA of at least 3.0 from a recognized higher learning institution. OR

ii. Holders of Bachelor degree in Engineering, Science or equivalent of at least 2.7 from a recognized higher learning institution and with a minimum of three years of relevant working experience after graduation. OR

iii. Holders of Advanced Diploma in Engineering, Science or equivalent with a PASS from a recognized higher learning institution and with a minimum of five years working experience after graduation.

3.4.3. Application procedures and application forms

Information about fees structure and application forms (DIT/PS/APPL/01 and DIT/PS/APPL/02) and procedures are available on DIT website: http://www.dit.ac.tz or Research office (Block B, Ground floor).

3.5. Other Important Information Related to Admission

3.5.1. **Registration**

All selected candidates are required to register after they have paid registration fee within the first two weeks after arrival at the Institute. Specifically, the deadline for registration of first year students is two weeks from the first day of the orientation week, while for continuing students it is the Friday of the second week after the beginning of the First Semester session.

3.5.2. **Institute Regulations**

Upon admission, all fresher's must obtain and read thoroughly the following regulations: (Other information can be accessed on DIT Website (http://www.dit.ac.tz).

(i) Conditions for Government sponsorship (in case of government sponsored students)

(ii) Students General Welfare, Conduct and Disciplinary Regulations

(iii) Examination Regulations

(iv) The Constitution of the Dar es Salaam Institute of Technology Students Organization (DITSO).

(v) Industrial Practical Training (IPT) Regulations

(vi) Library Regulations

(vii) Postgraduate guidelines special for postgraduate students

(viii) All admitted students are expected to comply entirely with institute regulations.

(ix) Any other regulations, guidelines and policies issued by DIT from time to time.

3.5.3. **During registration every student must produce the following documents:**

(i) Joining Instructions sent to him/her

(ii) A duly filled acceptance form to abide by the Institute Rules and Regulations

(iii) A duly filled medical examination form

(iv) All the original receipts / pay in slips of the money paid to the Institute through the Bank

(v) Original certificates, academic transcripts, statement of results etc for (B.Eng, mature age and Pre entry course entrants)

(vi) A birth certificate/affidavit

(vii) 2 passport size and 4 stamp size photographs recently taken

(viii) All foreign students are required to apply for residence permit from their nearest Tanzania Embassy before they depart for Tanzania.

(ix) TCU Certified undergraduate certificates for candidates who graduated in other Universities/Institutes/colleges outside Tanzania.

3.5.4. Every student shall report at the Institute at the beginning of the semester and on a prescribed date by the Institute. Any student who fails to report at the Institute on the prescribed date but reports not later than seven days from the date of reporting and without showing any reasonable cause for the failure to do so, shall be liable to receive a written warning from the Registrar.

3.5.5. Students who have been selected but cannot register for any reason cannot defer the admission to the next academic year. Such students need to apply afresh.

3.5.6. Students who have postponed studies will be required to report at the Institute at the corresponding time/date and semester similar to that one she/he left.

3.5.7. No change of names by students is entertained during the course of study at the Institute. Names appearing on the original academic certificates shall be used.

3.5.8. No student is allowed to change course, except in very exceptional circumstances. In the latter case, no student is allowed to change course later than the Friday of the second week after the beginning of the first semester session.

3.5.9. No student is allowed to postpone studies after commencement of an academic year except under special circumstances. Permission to postpone studies is considered after producing satisfactory evidence for the reasons of postponement and written approval from the sponsor.

3.5.10. Students shall be allowed to be away from studies for a maximum of two academic years if they are to be allowed for re-admission to the same year of studies where they left.

3.5.11. Students discontinued from studies on academic grounds may be readmitted to a different programme in the immediate next academic year or in the same programme after lapse of two years.

3.5.12. Students discontinued from studies on disciplinary grounds are barred from re-admission to any programme at the Institute.

CHAPTER FOUR

FEES AND OTHER FINANCIAL REQUIREMENTS

4.1. General Information

Apart from Tuition Fee, each student is required to pay for the following:

4.1.1 Registration Fee

All selected candidates will be required to register annually and pay a registration fee of 10,000/= only for Tanzanian citizen and USD 40 for non Tanzanian citizen per year. For Postgraduate Programmes, registration fees is TSh 50,000/= for Tanzanian or USD 50 for non Tanzanian students per year.

4.1.2 Caution Money

Each student is required to pay TSh. 10,000/= for Tanzanian citizen or USD 50 for non Tanzanian students as Caution Money. The money shall be refunded upon completion of course if he/she was not involved in any loss or damage of the Institute's properties. Where losses/damage exceeds 10,000/= or USD 50 the student shall be asked to pay the difference.

4.1.3 Identity Card

Each student is required to come with two recently taken stamp size photographs and TSh. 10,000/= for the cost of Identity Card. This amount is paid once. Replacement for a lost Identity Card shall be done after obtaining a loss report from Police Station and payment of TSh. 10,000/= for Tanzanian citizen or USD 20 for non Tanzanian students.

4.1.4 Membership to the DIT Students' Organization

Every DIT registered student is a member of the DIT Students Organization (DITSO). The membership registration fee for the first year students is TSh. 10,000/= for Tanzanian citizen or USD 20 for non Tanzanian students Membership subscription fees for every continuing student is TShs 5,000/= for Tanzanian student or USD 20 for non Tanzanian students each year.

4.1.5 Students Relief Fund /Medical contribution

Students with no valid health insurance membership cards are required to pay a total of TShs. 50,400/= for Tanzanian students or USD 60 for non Tanzanian students as a contribution towards students joining NHIF. Non Tanzanian student under postgraduate

programme is required to pay USD 75. This amount is paid directly to the Institute's Bank Account. Students with NHIF or other health insurance membership cards are not required to pay the contribution. However the ID for a health insurance membership is required before registration as evidence of payment of this contribution.

4.1.6 Accommodation in DIT Hostels

Ordinary Diploma (NTA Level 4-6) government sponsored students seeking accommodation in the Institute's hostels are required to bring with them: plates, cups, spoons, forks, bed sheets, pillows, mosquito nets and blankets. Ever student shall before being granted institute's accommodation pay in advance the prescribed accommodation fees.

4.2. Specific Information on Students Sponsorship

Students pursuing Ordinary Diploma (NTA level 4-6) programmes may join the Institute under Government sponsorship or as privately sponsored candidates. Whereas students pursuing Bachelor Degree are encouraged to apply for scholarship, loan from Higher Education Students Loan Board (HESLB) or third party. The fee structures for Government, Private sponsored students pursuing Ordinary Diploma (NTA level 4-6) programmes, students pursuing Bachelor Degree Programmes and students pursuing Master programme are as shown in Table 4.1, 4.2 and 4.4 respectively.

Table 4.2 (a) Ordinary Diploma (OD) Programme-Government Sponsored Student (NTA Level 4-6)

Fees /costs payable direct to the institute by government sponsored student (TShs).

S/N	Description	1st Year (NTA 4)	2nd Year (NTA 5)	3rd year (NTA 6)
1	Tuition fee	130,000.00	130,000	130,000.00
2	Registration fee	10,000.00	10,000.00	10,000.00
3	Caution money	10,000.00	-	-
4	National Health Insurance Fund (NHIF)*	50,400.00	50,400.00	50,400.00
5	Student's identity card	10,000.00	10,000.00	10,000.00
6	DIT Examination fee	60,000.00	60,000.00	60,000.00
7	Library Membership fees	10,000.00	10,000.00	10,000.00
8	DIT student Union Organization fee	10,000.00	5,000.00	5,000.00
	Total cost	**290,400.00**	**275,400.00**	**275,400.00**

Table 4.2 (b). Ordinary Diploma (OD) Programme-Private Sponsored Student (NTA Level 4-6)

Fees/Costs payable direct to the Institute by Private Sponsored Students (TShs)

S/N	DESCRIPTION	Tanzanian1st Year (NTA 4)	Non-Tanzania USD	Tanzanian 2nd Year (NTA 5)	Non-Tanzania USD	Tanzanian 3rd Year (NTA 6)	Non-Tanzanian (USD)
1	Tuition Fee	850,000.00	1,000.00	850,000.00	1,000.00	850,000.00	1000.00
2	Registration Fee	10,000.00	40.00	10,000.00	40.00	10,000.00	40.00
3	Caution money	10,000.00	50.00	10,000.00	-	10,000.00	-
4	National Health Insurance Fund (**NHIF)***	50,400.00	60.00	50,400.00	60.00	50,400.00	60.00
5	Student's identity Card	10,000.00	10.00	10,000.00	10.00	10,000.00	10.00
6	DIT Examination fee	60,000.00	75.00	60,000.00	75.00	60,000.00	75.00
7	Library Membership Fee	10,000.00	50.00	10,000.00	50.00	10,000.00	50.00
8	Student's organization Fee	10,000.00	20.00	5,000.00	20.00	5,000.00	20.00
9	Caution money	10,000.00	50.00	-	-	-	-
Total		**1,010,400.00**	**1,305.00**	**995,400.00**	**1,225.00**	**995,400.00**	**1,255.00**

Table 4.2 (c) Costs payable direct to the Ordinary Diploma (OD) Students (NTA LEVEL 4-6)

S/N	Description	1st Year(NTA 4)	2nd Year(NTA 5)	3rd Year (NTA6)
1.	Industrial Practical Training IPTL expenses	420,000.00	420,000.00	-
2.	Transport allowance to attend IPTL	24,000.00	24,000.00	-
TOTAL COSTS		**444,000.00**	**444,000.00**	**-**

IPT rate per day TShs 6000*70 days.

N.B. The Institute reserves the right to change or modify fees and costs rate from time to time.

Table 4.2 (d) Bachelor Degree (B.Eng/B.TECH) Programmes (NTA Level 7-8)

Fees/Costs payable to the institute by B.Eng (NTA level 7-8) Students/Sponsor

S/N	DESCRIPTION	Tanzanian1st Year	Non-Tanzania USD	Tanzanian 2nd Year	Non-Tanzania USD	Tanzanian 3rd Year	Non-Tanzania n USD
1	Tuition Fee*	1,250,000.00	2,000.00	1,250,000.00	2,000.00	1,250,000.00	2,000.00
2	Registration Fee	10,000.00	40.00	10,000. 00	40.00	10,000.00	40.00
3	Caution money	10,000.00	30.00	-	-	-	-
4	National Health Insurance Fund **(NHIF)****	**50,400.00**	**75.00**	**50,400.00**	**75.00**	**50,400.00**	**75.00**
5	Student's identity Card	10,000.00	10.00	10,000.00	10.00	10,000.00	10.00
6	DIT Examination fee	**-**	**100.00**	**-**	**100.00**	**-**	**100.00**
7	Library Membership Fee	10,000.00	50.00	10,000.00	50.00	10,000.00	50.00
8	Student's organization Fee	10,000.00	20.00	5,000.00	20.00	5,000.00	20.00
Total		**1,350,400.00**	**2,325.00**	**1,335,400.00**	**2,295.00**	**1,335,400.00**	**2,295.00**

*Student benefiting from HESLB facility will be required to pay first part of the fees which is not covered by the HESLB

**For Non-NHIF or non health insurance Member

N.B: The cost of undertaking the projects, amount to TShs 258,000.00
- Variable depending on the department: Civil and Mechanical Eng= 300,000.00: Computer Eng =170,000.00
- Electrical Eng =145,000.00 and Electronics & Telec Eng =205,000.00; Laboratory Sciences =300,000.00, Oil and Gas Eng =300,000.00

Table 4.2 (e) Costs payable direct to the B.Eng/BTech (NTA LEVEL 7-8) Students by Sponsors/Parents/Guardians

S/N	DESCRIPTION	Tanzanian1st Year (NTA 4)	Non-Tanzania USD	Tanzanian 2nd Year (NTA 5)	Non-Tanzania USD	Tanzanian 3rd Year (NTA 6)	Non-Tanzania n USD
1	Industrial Practical Training*	560,000.00	560.00	560,000.00	560.00	-	-
2	Book/stationary costs	120,000.00	120.00	120,000.00	120.00	120,000.00	120.00
3	Accommodation and meals costs	1,190,000.00	1,190.00	1,190,000.00	1,190.00	1,190,000.00	1,190.00
4	Transport fare to attend IPTL**	**Variable**	**Variable**	**variable**	**Variable**	**Variable**	**variable**

***IPT rate per day TShs 10,000 x 56 days**

****Variable depending on IPT place/location**

N.B. The institute reserves the right to change or modify fees and cost rate from time to time.

Table 4.2 (f). Master of Engineering in Maintenance Management Programme (NTA Level 9)

Fees/cost payable to the institute by M.Eng (NTA level 9) Student /Sponsor

S/N	DESCRIPTION	Tanzanian 1st Year (NTA 9) (TSh)	Non-Tanzania USD 1st Year (USD)	Tanzanian Six Months of Dissertation (NTA 9)- (TSh)	Non-Tanzania Six Months of Dissertation (NTA 9)- (USD)
1	Tuition Fee	3,475,000.00	3,475.00	625,000.00	625.00
2	Registration Fee	50,000.00	50.00	50,000.00	50.00
3	National Health Insurance Fund **(NHIF)***	50,400.00	50.00	50,400.00	50.00
4	Student's identity Card	10,000.00	10.00	10,000.00	10.00
5	DIT Examination fee	200,000.00	200.00	200,000.00	200.00
6	Library Membership Fee	30,000.00	50.00	-	-
7	Student's organization Fee	10,000.00	10.00	5,000.00	10.00
8	Caution money	10,000.00	10.00	-	-
	Graduation Fees	-	-	50,000.00	50.00
Total costs		**3,835,400.00**	**3,855.00**	**990,400.00**	**995.00**

***To be paid by the Non-NHIF member or the non health insurance Member**

Table 4.2 (g).Costs payable direct to the M.Eng (NTA Level 9) student s by Sponsors/Parents/Guardians

S/N	DESCRIPTION	Tanzanian 1st Year (NTA 9 4) (TSh)	Non-Tanzanian 1st Year (NTA 9) (USD)	Tanzanian Six Months of Dissertation (NTA 9)(TSh)	Non-Tanzanian Six Months of Dissertation (NTA 9)- (USD)
1	Book costs	500,000.00	500.00	-	-
2	Stationary costs	150,000.00	150.00	50,000.00	50.00
3	Dissertation Production Costs			250,000.00	250.00
4	Living and facilitation costs Allowance	3,600,000.00	3,600.00	1,800,000.00	1,800.00
5	Research costs			2,000,000.00	2,000.00
Total costs		**4,250,000.00**	**4,250.00**	**4,100,000.00**	**4,100.00**

Table 4.2 (h) Master in Computational Science and Engineering (NTA Level 9)

Fees/Costs Payable to the Institute by MCSE Students/Sponsor

S/N	Item	Tanzanians		Non Tanzanians	
		1st year (TZS)	2nd year (TZS)	1st year (US $)	2nd year (US $)
1	**Tuition Fees**	**4,674,000.00**	**3,217,000.00**	**2,950.00**	**2,355.00**
2	Registration Fees	50,000.00	50,000.00	50.00	50.00
3	DIT Examination Fees	200,000.00	200,000.00	200.00	200.00
		50,400.00	50,400.00	50.00	50.00
4	Identity Card	10,000.00	-	10.00	10,000
5	Library Membership	30,000.00	-	50.00	-
6	DITSO Contribution	10,000.00	10,000.00	20.00	20.00
7	Caution Money	10,000.00	-	10.00	-
8	Graduation Fees	-	50,000.00	-	50.00
Total costs		**5,344,400.00**	**3,577,400.00**	**3,340.00**	**2,735.00**

N.B All students must have the health insurance

Non-NHIF Member or non-health insured members must pay to the institute **50,400/=** per year, for Tanzanian and **USD50** for non-Tanzanian

Table 4.2.(h) Costs payable direct to the MCSE Students by Sponsors/Parents/Guardians

S/N	Description	Tanzanians		Non Tanzanians	
		1st year (TZS)	2nd year (TZS)	1st year (US $)	2nd year (US $)
1	Book Costs	900,000.00	450,000.00	800.00	400.00
2	Stationery Costs	150,000.00	50,000.00	150.00	50.00
3	Dissertation Production Costs	-	500,000.00	-	500.00
4	Laptop latest for computational purposes	2,000,000.00	-	2,000.00	-
5	Storage devices	50,000.00	50,000.00	50.00	50.00
6	Living and Facilitation Costs Allowance	3,600,000.00	3,600,000.00	3,600.00	3,600.00
7	Research Costs	-	3,000,000.00	-	3,000.00
Total costs		**6,700,000.00**	**7,650,000.00**	**6,600.00**	**7,600.00**

N.B:- The Institute reserves the right to change or modify fees and cost rate from time to time

It is the responsibility of the student to ensure that fees and other costs are remitted timely.

Once fees paid are non refundable

4.3 SPECIAL FACULTY/COURSE REQUIREMENTS FOR B.ENG (NTA 7-8) PROGRAMME

Faculty/Course requirements enable students to realize curriculum and participate effectively in both theoretical and practical studies in accordance with requirements of the curriculum. Cost for this item varies from one course to another depending on the respective curriculum requirements. The corresponding cost implications are outlined in Table 4.6. Course requirement fund is recommended to be paid directly to the Institute.

Table 4.3 Special Faculty/Course requirements for Bachelor Degree Programmes. NTA Level 7-8

PROGRAMME	Costs (TShs)
Civil Engineering	300,000.00
Computer Engineering	170,000.00
Electrical Engineering	145,000.00
Mechanical Engineering	300,000.00
Electronic and Telecommunication Engineering	205,000.00
Laboratory Sciences	300,000.00
Oil and Gas Engineering	300,000.00

4.4 FINAL PROJECT/RESEARCH REQUIREMENTS

B.Eng. Students are required to undertake Senior Project I and II in the 5^{th} and 6^{th} semesters of their study respectively in accordance with the requirements of curriculum. The cost of undertaking the projects, amount to TSh. 258,000.00 where it is recommended that TShs. 118,000.00 and TShs. 140,000.00 are directly paid by the sponsor or third part to the student and the Institute respectively. For Master of Engineering Programme costs for research is TSh. 2,000,000/= or USD 2,000.00 and for Master of Science and Engineering Programme is 3,000,000/= or USD 3000 for non Tanzanians.

4.5 PAYMENT OF TUITION AND OTHER FEES TO THE INSTITUTE

All private sponsored students are required to produce verifiable evidence of sponsorship from the respective organizations, parents/guardians, on the first day of each academic year. Sponsors are required to pay full tuition and other fees payable directly to the Institute before the respective students are registered to embark on studies. All fees and other payments payable to the Institute should be paid through any branch, CRDB Bank DIT, A/C No. 0150408417800. Original Bank pay in slips should be presented before registration. Fees once paid will not be refunded.

DIT Bankers: CRDB, Vijana Branch – DSM A/C No. 0150408417800.

For Master of Degree Programmes payment should be made through NBC account with the following bank details:

Bank Account: **Dar es Salaam Institute of Technology**

Account Number: **011103005389**

Bank: **NBC** (any Branch)

However, even in special cases where payment by installment is allowed, no student is registered for the final examination at the end of the semester or awarded a certificate by the Institute unless he/she has fully paid the relevant dues. Please note that, students must themselves collect from the Institute Accounts Office profoma invoices for the money due to be paid directly to the Institute. Proforma invoices for master degree candidates can be collected from ICB office, Block B ground floor.

4.5.1 Additional cost fees

(i) Table 4.5.1 Hostel Charges per academic year as additional

PROGRAMME	Tanzanian	Non Tanzanian
	TShs	USD
Block I	30,000.00	500
Block II	30,000.00	
Block III	30,000.00	
Block IV	50,000.00	
Block V	120,000.00	
Chang'ombe Hostel	100,000.00	

N.B:- DIT Hostel accommodation and meals is subject to availability of space

(ii) Table 4.5.2 Other Additional Costs

S/N	PROGRAMME	Tanzanian	Non Tanzanian
		TShs	USD
1	Meals Costs for OD living in Hostels	960,000.00	N/A
2	Appeals Fees per Module for OD	5,000.00	5.00
3	Appeals Fee per Module for NTA Level 7-9.	10,000.00	10.00
4	Application Fees for NTA Level 4-8	20,000.00	20.00
5	Application Fees for NTA Level 9	30,000.00	30.00
6	Replacement of Lost ID Card	10,000.00	20.00
7	Transcripts Fees for NTA Level 4-9	10,000.00	10.00
8	Transcripts Fees for FTC/ADE	5,000.00	5.00

NB (a) A retake student has to pay the tuition fee in full if the modules he/she retakes spread over both semesters of an academic year, if the

module/modules he/she retakes are in a single semester of an academic year, he/she has to pay fifty percent (50%) of the tuition fee

(b) A retake student has to pay the accommodation fee in full if the modules he/she retakes spread over both semesters of an academic year, if the module/modules he/she retakes are in a single semester of an academic year, he/she has to pay fifty percent (50%) of the accommodation fee

CHAPTER FIVE

EXAMINATION REGULATIONS

5. EXAMINATION REGULATIONS

At the end of each semester students are required to sit for examinations in accordance with the Institutes regulations. In fulfilling these requirements, NTA Levels 4-9 students are required to observe the Institutes examination regulations under clause 5.1 (statutory Examinations Powers) as approved by the DIT Council.

5.1 Statutory Examinations Power

The Dar es Salaam Institute of Technology (DIT) is empowered to make regulations governing the conduct of and grant of awards by Section 25 of the Parliamentary Act No. 6 of 1997.

5.2 Primacy of Institute Examination Regulations

The Institute examination Regulations take precedence over any other regulations, including those of external or professional bodies, unless variation is specifically permitted by the DIT Council.

5.3 Examination Regulations and its applications

5.3.1 The examination regulations detail courses of action to be taken by DIT on all matters related to examinations and awards.

5.3.2 These examinations regulations apply to programmes leading to the qualifications National Technical Awards Levels 4 – 9.

5.4 Cognisance of Examination Regulations

By registering as DIT student every student is deemed to be cognisant of, and to have agreed to abide by, the examination rules set out in these regulations.

5.5 Examinations

5.5.1. Examinations include continuous assessment (tests, assignments, seminars

presentations, practical, dissertations or any other form of assessment specified in the study guides, issued at the beginning of Semester) and end of Semester Examinations including practical where appropriate.

5.5.2 There shall be a written and, where the course demands, a practical examination during each end of semester for a course taught.

5.5.3 Timing of examinations shall be between 08.00 am and 09.00 pm any day of the week including weekends. Approved public holidays and other days when the Institute is closed are excluded.

5.6 Registration for modules

5.6.1 In the First Semester of any programme of study candidates shall register for studies and modules in their respective Departments during the orientation week.

5.6.2 For second and above semester's students shall provisionally register for modules in the first two weeks of the semester.

5.6.3 Elective modules shall be registered at the Department offering the course and endorsed by the programme administering Department.

5.6.4 A candidate may be allowed to add or drop a module within the first two weeks of the semester subject to the approval of the head of the programme administering.

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

5.6.6 For an elective module to be offered the minimum number of students shall be ten (10) in NTA levels 4-8 and 5 students for NTA level 9.

5.7 Eligibility for Examinations

5.7.1 Candidates eligible for examinations shall be those fulfilling Institute registration, course eligibility requirements, and full payment of fees.

5.7.2 No candidate shall be eligible for any examination in any module unless the

Head of Department has been satisfied that the candidate has undertaken and completed the course by attendance of at least 80% of the lectures and practicals.

a) A candidate with compelling reasons may be granted Permission to absent her/himself from class by the Head of Department after consultation with the Registrar.

b) Notwithstanding the provision of sub-section 5.7.2 (a), such a candidate shall be required to complete the course by 80% attendance before being allowed to sit for the examination.

5.7.3 Permission for postponement of end of Semester Examinations for compelling reasons shall be granted by the Registrar in consultation with the Deputy Principal (Academic, Research & Consultancy) while postponement of continuous assessment component for compelling reasons shall be granted by the respective Head of Department in consultation with the Registrar.

5.8 Performance Threshold

5.8.1. Examinations components

Examinations shall have two components that are assessed separately namely continuous assessment and end of Semester examinations. The candidates shall be required to pass both of them. Postgraduate students' dissertation is the 3rd examination component for NTA 9 and this shall be conducted and assessed in accordance to procedures stipulated in the DIT Postgraduate guidelines.

5.8.2. Weighting of Assessment components

The overall score shall be 100% and shall be composed of Continuous Assessment and end of Semester Examination components. Weighting of assessment components unless specified otherwise at the beginning of the semester shall be:

a) Continuous Assessment 40%

b) End of Semester Examination 60%

5.8.3**. Passing score**

The passing score for each assessment component out of 100% at the respective NTAs levels shall be:

a) 50% for continuous assessment, for end of semester examination and for semester overall assessment for NTAs levels 4 – 5.

b) 45% for continuous assessment, for end of semester examination and for semester overall assessment for NTAs level 6.

c) 40% for continuous assessment, for end of semester examination and for semester overall assessment NTAs levels 7 – 8.

d) 50% for continuous assessment, for end of semester examination and for semester overall assessment in NTA level 9 offered by coursework and dissertation.

5.8.4 Industrial practical training (IPT)

All industrial practical training modules for NTA Levels 4, 5 and 7 shall be carried out after the semester two of the respective academic year. The log books will be marked and IPT results shall be compiled for the semester I of the next academic year.

5.8.5 Students' Projects

5.8.5.1 Coverage

Project Data Collection and Project Data Analysis are covered in Semester I and. II, respectively for both NTA levels 6 and 8 candidates.

i) Project Data Collection module addresses the project proposal with preliminary data collection and is carried out in semester I in both NTA 6 and 8.

ii) Project Data Analysis module covers the data collection, organization, analysis and the final report done in semester II in both NTA 6 and 8.

5.8.5.2 Projects Evaluation

Students Projects (Project Data Collection and Project Data Analysis modules) shall be assessed like other module(s);

a) Evaluation of the Projects shall be done as guided in the Project guidelines for B. Eng and OD programs (Section 5.1).

b) A student failing in 'Project Data Collection' in semester I cannot proceed to Project Data Analysis module in semester II, shall have to re-take the whole Project when next offered.

c) A student failing in 'Project Data Analysis' module in semester II shall be required to re-take the whole Project when next offered. The score given to Project Data Collection in that case shall be nullified.

5.8.6. Dissertations

Dissertations (a six (6) months module) for NTA 9 shall be conducted and assessed according to the DIT Postgraduate guidelines.

5.9. Absence from Examination

5.9.1 Any candidate who absents oneself from a scheduled examination without compelling reason(s) shall be deemed to have absconded from the examination and shall be discontinued from studies. In this regulations, "unauthorized absence" include going out of examination room, temporarily or otherwise, staying out of the examinations room for an unduly long

period, without authority or permission of the invigilator or one of the invigilators for the examinations in question.

5.9.2 A candidate allowed to be absent (authorized absence) from the end of Semester examination shall and shall have to sit and pass the respective examination(s) when next offered.

5.9.3 All cases of postponement of examinations or studies shall be approved through the registrar.

5.9.4 A candidate who absents oneself from any continuous assessment or fails to submit assignment(s) given during the course work without compelling reasons shall be considered to have attempted such assignment(s) and shall be awarded a zero mark.

5.10. Dates and duration of Examinations

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

5.10.2. Frequency of continuous assessment shall be at least two individual tests for each module, e.g., minimum number of class tests is two. Other assessments like group assignments, practicals, home works etc may be given to compliment the continuous assessment part of the module depending on the nature of the module.

5.10.3. Dates for the end of semester examinations shall be published in the Institute academic calendar approved by the Academic Committee of the Council.

5.10.4. Duration for end of semester theory examinations shall be at least two hours for NTAs 4 – 5, two and half hours for NTAs 6 and three hours for NTAs 7 - 9.

5.11. Administrative organs

5.11.1. Academic Board

There shall be an Academic Board of the Institute.

a) Responsibilities:

(a) The Academic Board shall receive and deliberate all academic matters (Examinations results, examination appeals, irregularities, examination reports and students' performance) and make recommendations to the Academic Committee of the Council.

(b) In addition, the Academic Board shall receive and deliberate academic policies and regulations and make recommendations to the Academic Committee of the Council for approval.

b) Composition:

(i) Principal Chairperson

(ii) Deputy Principal (Academic Research and Consultancy) - Secretary

(iii) Registrar

(iv) Heads of Academic Departments

(v) Two Student representatives (NTAs levels 4 – 6 and NTAs levels 7 – 8) nominated by the DIT Students Organization (DITSO).

(vi) Dean of students

5.11.2. Irregularities Committee of the Academic Board

There shall be Irregularities Committee of the Academic Board hereinafter called Irregularities Committee.

(a) Responsibilities:

i) The Irregularities Committee shall receive irregularities cases, deliberate, investigate and recommend action to be taken by the Registrar subject to

approval of the Academic Board.

ii) The Academic Board and/or Irregularities Committee shall have powers to summon any academic staff, invigilator or students for questioning if deemed necessary.

(b) Composition

Composition of the Irregularities Committee shall be decided by the Registrar.

5.11.3. Academic Appeals Board

Except where unfair marking or other irregularity in the conduct of any examination is alleged, no appeal shall be entertained in respect of any such examination on any other grounds.

5.11.3.1. Appeals not related to unfair marking

There shall be Academic Appeals Board of the Institute.

Appeals not related to unfair marking shall be forwarded to the Academic Appeals Board that shall determine the validity of the appeal and shall give its recommendations to the Academic Board.

(a) Responsibilities

The Academic Appeals Board shall receive appeals (appeals not related to unfair marking), investigate, discuss and make recommendations to the Academic board of the Institute.

(b) Composition

(i) Registrar - Chairperson

(ii) Secretary of the Academic Staff Association (ASA) - Secretary

(iii) Head(s) of Department(s) where the appealing student(s) belong(s)

(iv) Two Students representatives nominated by DITSO.

(v) Dean of students

5.11.3.2. Appeals related to unfair marking

For appeals related to unfair marking the Registrar shall forward the appeal to the respective departments that offer the module. The Head of Department shall appoint expert (s) that shall determine the validity or re-mark the scripts and the department shall give its recommendations to the Academic Board.

5.11.3.3. Procedures for Appeal

i. Appeal shall be lodged to the Registrar through the Heads of the respective Departments using appeal forms within seven (7) working days from the date of the official publication of results, unless directed otherwise by the Principal.

ii. All appeals must be accompanied by non – refundable appeal fee prescribed per module by the Principal at the beginning of each academic year.

iii. The decision of the Council shall be final and no further appeals shall be entertained.

5.11.2. **Academic Committee**

There shall be Academic Committee of the Council.

(a) Responsibilities:

i) The Academic Committee shall receive, deliberate and approve reports and recommendations of the Academic Board.

ii) The Academic Committee shall approve and recommend deliberations of the Academic Board to the Council for endorsement.

(b) Composition:

The composition of the Academic Committee shall be decided by the Council.

5.12. Examination Irregularities and Penalties

5.12.1 All cases of alleged examination irregularities shall be referred to the Office of Registrar immediately which, through Irregularities Committee, shall investigate and submit recommendations to the Academic Board.

5.12.2. Any candidate who shall be proven to have brought/used unauthorized material in the examination room in any part of the examination process shall have committed examination irregularities. Unauthorized materials such as written or printed materials, purses, electronic equipment including cell-phones, pagers and any other device (other than an approved device) capable of storing text or restricted information etc shall not be allowed into the examination premises.

5.12.3 Candidates shall not engage themselves in any form of communication in the examination room when the examination is in progress. There shall be no borrowing or exchanging of materials such as calculators, rulers and pens among candidates during examinations.

5.12.4. Any candidate who shall be proven to have committed examination irregularities, including being involved in Plagiarism and impersonation in any part of the examination shall be discontinued from studies subject to confirmation by the Council.

5.13 Publication and Nullification of Results

5.13.1 **Provisional Results Publication**

The provisional results of candidates in every examination shall be published by the Registrar soon after the Institute's Academic Board meeting but the results shall be provisional until the Academic Committee of the Council approves them.

5.13.2 **Right and Discretion of the Institute**

(a) The issue of results and awards shall be entirely at the discretion of the Academic Committee of DIT Council.

(b) The Institute, subject to the approval of the Council, shall amend the classification of, withhold or nullify an award of any candidate in proved cases

of irregularity or any other forms of fraud, or to revoke, any certificate it has already awarded, and to require the awarded certificate to be returned to the Institute.

5.13.3 **Release of Examinations Results and Candidates Responsibilities**

(a) Candidates shall be informed where and how to get their results as directed by the Academic Committee.

(b) The Institute shall not, except in its absolute discretion, communicate with candidates or parents, or any other person claiming to act on behalf, on matters related to examination results.

(c) Candidates shall be responsible for maintaining an awareness of their academic performance and dates of normal, supplementary and re-take examinations.

(d) No mass action by students shall be entertained in academic matters as per regulations.

5.13.4 **The Timing and Means of Release of examination results**

(a) Examination results shall be published immediately after the approval of the Academic Committee. The results may be posted on departmental boards and shall bear a certification of the Registrar.

(b) The Institute may also use other means including its own website and tools such as the electronic platform software to give notices on matters related to examination results.

(c) In the event Institute releases examination results by publishing in the news media, notice-boards or its official website, only examination numbers/ registration numbers shall be used. Under no circumstances shall names or any other identification known to a third party shall be used for releasing the results to the general public.

5.14 Preservation of Examination Scripts

5.14.1 Written examination scripts and examinations records, like, practical examinations, shall be preserved for at least one year after publication of the results.

5.14.2 The examination scripts and examinations records of failed modules shall be preserved until a year after their clearance.

5.15 Academic Audit Units for NTAs Levels

5.15.1 Academic Audit Unit for programmes leading to the awards of NTA Levels 4 to 8 shall be one academic year. For (NTA 9) programme by coursework and dissertation, the academic Audit Unit shall be one of the coursework and six months of dissertation.

5.16 Progress from one Academic Audit Unit to the next Academic Audit Unit

5.16.1. A candidate in NTA levels 4-8 getting a GPA less than 1.8 shall be discontinued from studies. A candidate in NTA 9 programme by coursework and dissertation, getting overall GPA less than 2.5 in the coursework shall be discontinued from studies.

5.16.2. A candidate attaining a GPA greater than or equal to 1.8 and greater than or equal to 2.5 for NTAs 4-8 and NTA 9 respectively to be allowed to sit for supplementary examinations. After supplementary the GPAs of 2.0 and 3.0 must be attained for NTAs 4-8 and NTA 9, respectively. A student in NTA Level 4-8 attaining a GPA less than 2.0 after supplementary examinations shall be discontinued from studies.

5.16.2. **Supplementary examinations**

5:16.2.1 A candidate in NTA 4-8 getting a GPA of 1.8 or above but failing some modules in that academic audit unit shall be required to supplement the failed modules and pass before being promoted to the next academic audit unit.

5:16.2.2. A candidates in NTA level 9 getting a GPA of 2.5 or above but failing some modules in that academic audit unit shall be required to supplement the failed modules and pass before being promoted to the next academic audit unit.

5.16.2.3. Supplementary examination for elective modules is not mandatory provided that the candidate has passed modules required to have minimum total credits in the coursework.

5.16.3. A candidate in the 1ST year (NTA 4, GC AND NTA 7) getting a GPA of 1.8 or above but failing continuous assessment of some modules in that academic audit unit shall NOT be allowed to supplement the failed CAs but shall be required to RE-TAKE the respective modules when next offered provided that the overall GPA is not less than 1.8 before supplementing the other filed modules.

5.16.4. A candidate failing in a supplementary examination shall be required to retake the respective module when next offered, but only once for the NTA level registered for OR the General Course programme provided that the candidate attains a GPA of at least 2.0 and passes at least 50% of the total credits. For NTA Level 9, the GPA attained after supplementary must be at least 2.8 to carry-over a module (s) failed after supplementary.

5.16.5. NTA level 7 students are allowed to carry-over a maximum of two modules from the first academic year while undertaking 2nd academic year module (3rd and 4th semester).

A student in NTA 9 programme shall be allowed to carry-over modules failed during supplementary examinations provided that his/her overall coursework GPA is not less than 2.8. The carry-over module shall be cleared within the 12 months of the next academic year.

5.16.6. The highest grade for NTA levels 4-8 supplementary examinations, shall be the lowest pass mark of "C" and ''B" for NTA Level 9.

5.16.7. For promotion to the next level of award candidates shall be required to pass all prescribed modules for the current level through first sitting, supplementary or re-take/carry-over.

5.17. Progress from current level to the next level of award

5.17.1 A candidate shall be allowed to proceed to the next level of award after passing all prescribed modules at the current level.

5.17.2 A candidate who does not meet requirements for level progression may be recommended for a lower level of award for which has fulfilled the requirements for the award.

5.18. Special Examinations (First Sitting)

Candidates permitted to sit for special first sitting examinations shall do so as directed by the Registrar.

5.19. Postponement of Studies

5.19.1 Permission for postponement of studies on compelling grounds shall be granted by the Principal in consultation with the sponsor.

5.19.2 The maximum duration for postponement of studies for whatever reasons shall be two academic years.

5.19.3 No one shall be allowed to postpone more than once in one level of award except for compelling medical grounds.

5.20 Conditions for the Award

A candidate shall qualify for the award registered for if:

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

5.20.2 He/She has passed all industrial practical training modules.

5.20.3 He/She has passed senior projects (where applicable).

5.20.4 He/She has paid required fees.

5.20.5 He/She has fulfilled any other terms and conditions established by the Council.

5.21 Classification of Awards

i) A Five – Point and Six-Point Systems shall be used in averaging the final grades in awards classified by the Institute at NTAs Levels 4-5 and NTAs Levels 6-9 respectively shall be assigned points corresponding to the letter grades obtained. The letter grades shall be assigned a Five – Point and Six-Point (in line with item 5.23.2), that shall be used in the general formula for calculating the Grade Point Average (GPA) for semester modules and finally the annual GPAs.

ii) Grade point (GP) for a module shall be calculated as a product of letter grade points achieved in the module (Table 5.1) and credits of the module i.e Σ (Letter Grade points × Credit). Ranges of scores for different grades and levels of studies are given in Table 5.1.

Table 5.1: Ranges of Scores for Different Grades

NTAs Level 4-5			NTAs Level 6			NTAs Level 7-8		
Grade	**Definition**	**Score Range**	**Grade**	**Definition**	**Score Range**	**Grade**	**Definition**	**Score Range**
A	Excellent	80 – 100	A	Excellent	75 - 100	A	Excellent	70 - 100
			B+	Well Above Average (Very Good)	65-74	B+	Well Above Average (Very Good)	60-69
NTAs Level 4-5			**NTAs Level 6**			**NTAs Level 7-8**		
Grade	**Definition**	**Score Range**	**Grade**	**Definition**	**Score Range**	**Grade**	**Definition**	**Score Range**
B	Above Average (Good)	65 – 79	B	Above Average (Good)	55-64	B	Above Average (Good)	50-59
C	Average (Satisfactory)	50-64	C	Average (Satisfactory	45-54	C	Average (Satisfactory)	40-49
D	Below Average (Poor)	40-49	D	Below Average (Poor)	35-44	D	Below Average (Poor)	35-39
F	Failure	0-39	F	Failure	0-34	F	Failure	0-34
I	Incomplete		I	Incomplete		I	Incomplete	

5.22. Procedure for Classification of Degrees

(a) NTA s Level 4 – 5	
Class of Awards	**Cumulative GPA**
First Class	3.5 - 4.0
Second Class	3.0 – 3.4
Pass	2.0 – 2.9
(b) NTAs Level 6-8	
Class of Awards	**Cumulative GPA**
First Class	4.4 – 5.0
Upper Second Class	3.5 – 4.3
Lower Second Class	2.7 – 3.4
Pass	2.0 – 2.6

c) Classification of Awards for NTA Level 9

Class of Awards	Cumulative GPA
First Class	4.4 – 5.0
Upper second class	3.5 – 4.3
Lower Second Class	3.0 – 3.4

Table 5.2. Ranges of Scores for different Grades for NTA level 9 by Coursework and dissertation.

Range of Marks (100%)	**Grade**	**Grade point**	**Definition**
70-100	**A**	**5**	**Excellent**
60-69	**B+**	**4**	**Very Good**
50-59	**B**	**3**	**Good**
40-49	**C**	**2**	**Poor**
35-39	**D**	**1**	**Very poor**
0-34	**F**	**0**	**Failure**

5.23. Procedure for calculating Grade Point Average (GPA)

5.23.1. Modules considered in computing GPA

All core modules' credits shall be included in calculating GPA. However, where candidate takes electives over and above minimum required, credits from electives with highest scores adding to the minimum particular NTAs award shall be used in calculating GPA. The scores for the remaining electives shall be entered into the transcript.

5.23.2. Computation of the Cumulative GPA (CGPA)

The computation of the Cumulative GPA (CGPA) will be based on the following formula.

$$\text{CGPA} = \text{Avg GPA} = \frac{\text{GPA FOR SEMESTER I + GPA FOR SEMESTER II}}{2}$$

$$\text{WHERE GPA FOR A GIVEN SEMESTER} = \frac{\sum (\text{Grade points x Credit})}{\sum \text{Credit}}$$

Grade Points Computation for (4-5)

Range of Marks	Grade	Grade point	Equation For The Grade Point
80 – 100%	A	*4.0*	$\frac{\Sigma (\text{Letter Grade points} \times \text{Credit})}{\Sigma \text{ Credits}}$
65 – 79 %	B	*3.0*	
50 – 64 %	C	*2.0*	
40 – 49 %	D	*1.0*	
0 – 39%	F	*0*	

Grade Points Computation for NTAs 6

Range of Marks	Grade	Grade point	Equation For The Grade Point
75 – 100%	A	*5.0*	$\frac{\Sigma (\text{Letter Grade points} \times \text{Credit})}{\Sigma \text{ Credits}}$
65 – 74 %	B+	*4.0*	
55 – 64 %	B	*3.0*	
45 – 54 %	C	*2.0*	
35 – 44%	D	*1.0*	
0 – 34%	F	*0*	

Grade Points Computation for NTAs 7-9

Range of Marks	Grade	Grade point	Equation For The Grade Point
70 – 100%	A	5.0	

60 – 69%	B+	4.0	$\frac{\Sigma \text{ (Letter Grade points} \times \text{Credit)}}{\Sigma \text{ Credits}}$
50 – 59 %	B	3.0	
40 – 49 %	C	2.0	
35 – 39%	D	1.0	
0 – 34%	F	0	

5.23.3. Precision for Computations of Cumulative Grade Points

The order of precision of Grade Points Computation shall be as follows:

i. Computations of Cumulative Grade Points shall be made to the fourth decimal places

ii. Cumulative Grade Points shall be rounded off to three decimal places

iii. For award classification purposes, final Grade Points shall be truncated to the first decimal place

5.24. Institute awards approved

Upon completion of studies the Institute shall award successful candidates the following Institute awards as approved by the National Council for Technical Education (NACTE)

(a) NTA level 4 – Basic Technician Certificate

(b) NTA level 5 – Technician Certificate

(c) NTA level 6 – Ordinary Diploma

(d) NTA level 7 – Higher Diploma

(e) NTA level 8 – Bachelor Degree

(f) NTA level 9 – Master Degree

5.25. Issue of Academic Certificate

5.25.1 The Institute shall award Academic certificates to successful candidates as approved by the Council of the Institute. The certificate recipients will not be required to meet the cost of printing the certificates.

5.25.2. The institute may correct a printed certificate and issue a corrected certificate if it is satisfied that there is a need to do so. The Principal shall prescribe the cost to be paid by the bearer of the certificate if the error to be corrected is caused by the bearer.

5.26. Replacement of Lost Academic Certificates

The Institute may issue another copy in case of loss of the original certificate on

condition that:

(a) The applicant produces a sworn affidavit,

(b) The certificate so issued shall be marked , across it;

(c) The replacement certificate shall not be issued until 12 months after reporting the loss to the Institute;

(d) The applicant must produce evidence that the loss has been adequately publicly announced, including a written report from the Police;

(e) A fee prescribed by the Principal at the beginning of the academic year shall be charged, for the copy of the certificate issued.

5.27. Issue of Transcript/Statement of results

The Institute may issue transcripts statement of results at a cost prescribed by the Principal at the beginning of the academic year.

5.28. Amendments

Amendments on examinations regulations shall be done from time to time as deemed necessary by the academic committee.

Note in addition to examination regulations, postgraduate students are required to comply with DIT postgraduate guidelines.

CHAPTER SIX

PROFILE OF ACADEMIC DEPARTMENTS

6.1. DEPARTMENT OF CIVIL ENGINEERING

The Department offers Ordinary Diploma (OD) at NTA level 6 and Bachelor of Engineering Degree (B. Eng) at NTA Level 8. The Department also offers Master degree programme of Engineering in Maintenance Management (NTA 9) by coursework and dissertation. Students admitted for OD may exit at NTA level 4 and 5 with the award of Basic Technician Certificate (BTC) and Technician Certificate (TC) respectively. Successful students who complete Ordinary Diploma course are awarded an Ordinary Diploma at NTA level 6. While those for engineering degree courses may exit at NTA level 7 and are awarded a Higher Diploma (HD), including those who proceed to NTA level 8, but are unable to qualify for a degree. Successful students who complete NTA level 8 are awarded Bachelor of Engineering Degree in Civil Engineering while successful students in NTA 9 will be awarded Master of Engineering in Maintenance Management.

To support the above programmes, the department possesses adequate physical and human resources this include lecturers, classrooms, laboratories and workshops. It has thirty eight 38 qualified teaching staff members and five technical supporting personnel.

6.1.1 Programmes offered by Civil Engineering Department

(a) BASIC TECHNICIAN CERTIFICATE (BTC) IN CIVIL ENGINEERING –NTA 4

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 04101	Algebra	5
GST 04102	Basic Technical Communication skills.	2
GST 04103	Entrepreneurship Concepts and Context	3
CSET 04101	Computer Basics, Word processing & Spreadsheet	2
EET 04104	Electrical Installation and Drafting	12
MET 04103	Gas Welding Processes	9
SLTP 04101	Statistic and Dynamics	3
CORE MODULES		
CET 04101	Linear Surveying	9
CET 04102	Road Drainage & Maintenance	6
CET 04103	Introduction to Technical Drawing	9
CET 04104	Basic Soil Mechanics	6
CET 04105	Introduction to Civil Engineering Material	6
CET 04106	Basic Construction Practice	6
	Total	**78**

Semester II:

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication skills	2
GST 04206	Small Business Development	3
CSET 04204	Spread Sheet and Database	2
MET 04208	Arc Welding Processing	9

SLTP 04202	Gravitation and Simple Harmonic Motion	3
CORE MODULES		
CET 04206	Basic construction practices	6
CET 04207	Basic Building Construction	9
CET 04208	Introduction to Architectural Drawing	9
CET 04209	Mechanics	5
CET 04210	Maintenance and Construction techniques	9
	Total	**62**

Total Credits at NTA Level 4: 130 (Minimum credits required at level 4: 120)

(b) TECHNICIAN CERTIFICATE (BTC) IN CIVIL ENGINEERING – NTA 5

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 05101	Fundamental Rule of Counting, matrices and Differentiation	5
GST 05102	Business Communication	2
CSET 05101	Presentation and Internet	2
GST 05103	Business Start up and Management	3
SLTP 05101	Strength of Materials and Rotational Dynamic	3
CORE MODULES		
CET 05101	Land Surveying	9
CET 05102	Building Construction	9
CET 05103	Measurement of Building Works	8
CET 05104	Building and Civil Engineering Materials	6
CET 05105	Structural Analysis	9
CET 05106	Hydraulics and Fluid Mechanics	6
CET 05212	Industrial Practical Training	10
	Total	**72**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentations	2
GST 05206	Business Financial Management and Accounting	3
GST 05207	Research Methods for Technicians	3
SLTP 05202	Fluid Mechanics	3
CORE MODULES		
CET 05207	Hydrology, Water Supply and Sanitation	9
CET 05208	Architectural Design and Drawing	9
CET 05209	Road Construction and Maintenance	9
CET 05210	Soil Mechanics	9
CET 05211	Project for Survey	9
	Total	**61**

Total Credits at NTA Level 5: 133 (Minimum credits required at level 5: 120)

(c) ORDINARY DIPLOMA (OD) IN CIVIL ENGINEERING –NTA 6

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 06101	Conics and Differential Equation	4
GST 06102	Engineering Study Skills	2
GST 06103	Formalizations, Internationalization and E-Business	2
CSET 06101	Basic of Computer Programming	2
SLT P 06101	Electromagnetism	2
GST 06102	Engineering study skills	2
CORE MODULES		
CET 06101	Building Service and Maintenance	9

CET 06102	Elementary Structure Design	9
CET 06103	Route and Traffic Engineering	9
CET 06104	Structural Steel Design	10
CET 06105	Quantity Survey	9
CET 06106	Labour Based Technology	9
CET 06107	Project Data Collection	10
CET 06211	Industrial Practical Training	10
	Total	**96**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 06204	Complex Number, Numerical methods and series	4
GST 06205	Technical Writing	2
GST 06206	Business Planning	2
CSET 06201	Computer programming and Data structure	2
SLTP 06202	Heat and Thermodynamics	2
CORE MODULES		
CET 06208	Reinforced Concrete design	10
CET 06209	Soil Mechanics and Foundations	9
CET 06210	Construction Management	9
CET 06211	Structural Timber Design	9
CET 06212	Pavement Design	9
CET 06213	Transportation Engineering	10
CET 06214	Project Data Analysis	10
	Total	**78**

Total Credits at NTA Level 6: 155 (Minimum credits required at level 6: 120)

(d). BASIC TECHNICIAN CERTIFICATE IN MINING (BTC) ENG. (NTA LEVEL 4)

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 04101	Algebra	5
GST 04102	Basic Technical Communication Skills	2
SLTP 04101	Statics and Dynamics	3
GST 04103	Entrepreneurship Concepts and Context	3
CSET 04101	Computer Basics and Word Processing and Spreadsheet	2
MET 04103	Gas Welding Processes	9
CORE MODULES		
CET 04103	Introduction to Technical Drawing	9
MMT04101	Introduction to Mining	6
EET 04104	Electrical Installation & Drafting	12
MMT 04102	Fundamental of Drilling Practices	9
MMT 04103	Mine Safety and Regulations	6
MMT 04104	Drilling Skills Practices	6
MMT 04105	Introduction to Geology	6
EET 04102	Principles of DC Network	12
	Total	**90**

Semester II:

Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
CSET 04204	Spread Sheet and Database	2
MET 04208	Welding Processes	9
SLTP 04202	Gravitational and Simple Harmonic Motion	3
CORE MODULES		
MMT 04205	Fundamentals of Structural Geology	6
MMT 04206	Explosive and Blasting Techniques	9

SLTP 04214	Basic chemistry Techniques	3
MMT 04207	Basic Surface Mining Practices	6
MMT 04208	Basic of Rock Properties for Drilling and Blasting	9
CET 04209	Mechanics	6
	Total	**63**

Total Credits of the equivalent NTA Level 6: 153 (Minimum credits required at level 6 : 120)

(e). TECHNICIAN CERTIFICATE (TC) IN MINING ENGINEERING –NTA LEVEL 5

Semester I

Module Code	Module Title	Credit
	FUNDAMENTAL MODULE	
GST 05101	Fundamental rules of Counting, Matrices and Differentiation	5
GST 05102	Business Communication	2
CSET 05101	Presentation and Internet	2
GST 05103	Business Start-up and Management	3
SLT 05101	Strength of Materials and Rotational Dynamics	3
	CORE MODULES	
MMT 05101	Introduction to Occupational Health and Safety	5
CET 05103	Measurement of Building Works	8
CET 05104	Building and Civil Engineering Materials	6
MMT 05102	Mining Environment and Ventilation	6
MMT 05103	Mining Techniques Practices	6
CET 05106	Hydraulics and Fluid Mechanics	6
MMT 05104	Industrial Practical Training	10
CET 05101	Land Surveying	9
CET 05105	Structural Analysis	9
ETT 04201	Telecommunication Principles	9
	TOTAL	**89**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULE		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentations	2
GST 05206	Business Financial management and Accounting	3
GST 05207	Research Methods for Technicians	3
CORE MODULES		
MMT 05201	Occupational Health and Safety	5
MMT 05202	Surface Mining Survey	9
MMT 05203	Maintenance Management	6
MMT 05204	Mine supervision	6
MMT 05205	Material Handling & Transportation Systems	9
CET 05208	Architectural Design and Drawing	9
	Total	**60**

Total Credits at NTA Level 5: 133 (Minimum credits required at level 5: 120)

(f) ORDINARY DIPLOMA IN MINING ENGINEERING –NTA LEVEL 6

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06101	Conics and Differential equation	4
GST 06102	Engineering Study Skill	2
GST 06103	Formalisation, Internationalisation and E- Business	2
CSET 6101	Basics of Computer Programming	2
SLT 06101	Electromagnetism	2
CORE MODULES		
MMT 06101	Underground Mining Methods and Practices	9
MMT 06102	Underground Mining Survey	6
MMT 06103	Principles of Geomechanics	9
CET 06105	Mineral Processing Techniques	9

CET 06104	Structural steel design	10
MMT 06104	Project data Collection	10
MMT 05210	Industrial Practical Training	10
CET 06105	Quantity Survey	9
CET 06105	Elementary Structural Design	9
TOTAL		**93**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06204	Complex Number, Numerical methods and series	4
GST 06205	Technical Writing	2
GST 06206	Business Planning	2
CSET 06201	Computer programming and data structure	2
SLT 06201	Heat and Thermodynamics	2
CORE MODULES		
CET 06211	Structural Timber Design	9
MMT 06201	Introduction to Engineering Management	6
MMT 06202	Introduction to Mineral Economics	6
MMT 06203	Environmental Management in Mining	6
MET 06210	Industrial Refrigeration and A/C	9
MMT 06204	Final Project Reporting	10
MMT06205	Geochemical Monitoring	6
ELECTIVE MODULES		
MED 103	Industrial Management and Law	6
CET 309	Road construction	6
Total		**76**

Total Credit at NTA Level 6: 169 (Minimum credits required at level 6: 120.)

(g) GENERAL COURSE PROGRAMME FOR B.ENG (CIVIL ENGINEERING)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
CSET 04101	Computer Basics and Word Processing	2
EET 04104	Electrical Installation and Draughting	12
GST 04102	Basic Technical Communication Skills	2
GST 04103	Entrepreneurship Concepts and Context	3
MET 04103	Gas Welding Processes	9
SLTP 04101	Static and Dynamics	3
CORE MODULES		
CET 04101	Linear Surveying	9
CET 04102	Road Drainage and Maintenance	6
CET 04103	Introduction to Technical Drawing	9
CET 04104	Basic Soil Mechanics	6
CET 06106	Labour Based Technology	9
CET 04105	Introduction to Civil Engineering Materials	6
CET 04106	Basic Construction Practices	6
CET 05105	Structural Analysis	9
	Total	**91**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
CSET 04204	Spreadsheet and Database	2
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
MET 04208	Welding Processes	9
SLTP 04202	Gravitation and simple harmonic motion	3
CORE MODULES		
CET 04102	Road Drainage and Maintenance	6
CET 04206	Basic Construction Practices	6

CET 04207	Basic Building Construction	9
CET 04208	Introduction to Architectural Drawing	9
CET 04209	Mechanics	5
CET 04210	Maintenance and Construction Techniques	9
CET 04211	Industrial Practical Training	10
CET 05210	Soil Mechanics	9
	Total	**82**

(h) HIGHER DIPLOMA IN CIVIL ENGINEERING (NTA LEVEL 7)

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07101	Calculus	6
GSU 07105	Computing Using Mathematical Software	6
GSU 07106	Technical Communication Skills	6
CSEU 07101	Object Oriented Programming	9
CORE MODULES		
CEU 07101	Land Surveying	6
CEU 07102	Building Construction	6
CEU 07103	Measurement of Building and Civil Works	6
CEU 07104	Basic Civil Engineering Materials	6
CEU 07105	Strength of Materials	6
CEU 07313	Engineering Geology	9
Total		**66**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07202	Advanced Calculus	6
CSEU 07201	Data Structure and Programming	9

CORE MODULES		
CEU 07206	Control Surveying	9
CEU 07207	Civil Engineering Materials	6
CEU 07208	Buildings Planning and Drawing	6
CEU 07209	Concrete Technology	6
CEU 07210	Basic Structural Theory	6
CEU 07211	Fluid Mechanics	6
CEU 07423	Labour Based Road Engineering	3
Total		**57**

Semester III

Module Code	**Module Title**	**Credit**
FUNDAMENTAL MODULES		
GSU 07303	Differential Equations and Complex Variables	6
CORE MODULES		
CEU 07312	Quantity Surveying	6
CEU 07314	Structural Analysis	6
CEU 07315	Open Channel Hydraulics	6
CEU 07316	Construction Management	9
CEU 07317	Reinforced Concrete Design	6
CEU 07318	Traffic Engineering	6
CEU 07420	Soil Mechanics	6
CEU 07227	Industrial Practical Training	12
Total		**63**

Semester IV

Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07404	Probability and statistics	6
GSU 07407	Research Methods for Engineers	3
CORE MODULES		
CEU 07419	Contract Planning and Administration	9
CEU 07421	Reinforced Concrete Design and Detailing	6
CEU 07422	Construction of Multi-storey Structures	6
CEU 07424	Hydrology Engineering	6
CEU 07425	Water Supply	6
CEU 07426	Route Design	6
CEU 07427	Soil Technology	12
	Total	**60**

Total Credits at NTA Level 7 is 293, (Minimum credits required at level 7 is 240)

(i) BACHELOR OF CIVIL ENGINEERING – NTA 8

Semester I - Structural Engineering

Module Code	Module Title	Credits
CORE MODULES		
CEU 08101	Engineering Economics	9
CEU 08103	Structural Steel design	9
CEU 08105	Highway Engineering materials	6
CEU 08106	Construction Technology Services	6
CEU 08107	Solid Waste Management	6
CEU 08108	Data Collection	18
CEU 08111	Industrial Practical Training	12
	Total	**66**

Semester II – Structural Engineering

Code	Module Title	Credit
CORE MODULES		
GSU 08201	Entrepreneurship for Engineers	3
CEU 08201	Structural Timber design	9
CEU 08202	Foundation Engineering	9
CEU 08203	Industrial Building Construction	9
CEU 08204	Masonry and Retaining Wall Design	9
CEU 08205	Project Data Analysis	18
Total		**57**

Total Credits at NTA Level 8 123 (Minimum credits required at level 8: 120)

Semester I – Transportation Engineering

Module Code	Module Title	Credit
CORE MODULES		
CEU 08101	Engineering Economics	9
CEU 08103	Structural Steel design	9
CEU 08105	Highway Engineering Materials	6
CEU 08109	Bridge Design and Construction	6
CEU 08107	Solid Waste Management	6
CEU 08108	Data Collection	18
CEU 08111	Industrial Practical Training	12
Total		**66**

Semester II – Transportation Engineering

Module Code	Module Title	Credit
CORE MODULES		
CSU 08201	Entrepreneurship for Engineers	**3**
CEU 08201	Structural Timber design	**9**
CEU 08202	Foundation Engineering	**9**
CEU 08206	Pavement Design and Construction	**6**

CEU 08207	Transportation Engineering	**6**
CEU 08208	Pavement Maintenance	**6**
CEU 08205	Project Data Analysis	18
Total		**57**

Total Credits at NTA Level 8: 123 (Minimum credits required at level 8: 120)

Semester I – Water Resources Engineering

Module Code	Module Title	Credit
CORE MODULES		
CEU 08101	Engineering Economics	9
CEU 08103	Structural Steel design	9
CEU 08105	Highway Engineering Materials	6
CEU 08107	Solid Waste Management	6
CEU 08110	Hydraulic Structures	6
CEU 08108	Data Collection	18
CEU 08111	Industrial Practical Training	12
Total		**66**

Semester II – Water Resources Engineering

Module Code	Module Title	Credit
CORE MODULES		
CSU 08201	Entrepreneurship for Engineering	**3**
CEU 08201	Structural Timber design	**9**
CEU 08202	Foundation Engineering	**9**
CEU 08209	Waste Water Engineering	**9**
CEU 08210	Irrigation Engineering	**9**
CEU 08205	Project Data Analysis	**18**
Total		**57**

Total Credits at NTA Level 8: 123 (Minimum credits required at level 8: 120)

(j) HIGHER DIPLOMA IN OIL AND GAS ENGINEERING NTA LEVEL 7

Semester I

Module Code	Module Title	Credit
CORE MODULES		
GSU 07101	Calculus	6
GSU 07105	Computing Using Mathematical Software	6
CSEU 07101	Object Oriented Programming	9
GSU 07106	Technical Communication Skills	6
CORE MODULES		
CMU 07101	Petroleum Geosciences	6
CMU 07102	Petrophysics	6
CMU 07103	Oil and Gas Drilling	6
CMU 07104	Inspection and Maintenance of Drilling Equipment	6
CMU 07105	On shore and offshore safety	6
CEU 07105	Strength of Material	6
Total		**63**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07202	Advanced Calculus	6
CSEU 07201	Data Structure and Programming	9
CORE MODULES		
CMU 07206	Well completion and Oil and Gas Production	9
CMU 07207	Material handling and supply	6
CMU 07208	On shore and Offshore environmental management	6
MEU 07215	Welding Technology in oil and Gas	6
CEU 07210	Basic Structural Theory	6
CEU 07211	Fluid Mechanics	6

CMU 07210	Semester II Project	3
CMU 07211	Industrial Practical Training (IPT)	12
Total		69

Semester III

Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07303*	Differential Equations and Complex Variables	6
CORE MODULES		
CMU 07312	Control Surveying	6
CMU 07313	Oil and Gas Pipe laying and construction	6
CMU 07314	Oil and Gas processing plant operations	9
CMU 07315	Safety in Oil and Gas Processing Plant	6
CMU 07316	Oil and Gas distribution system	6
CMU 07317	Inspection and Maintenance of Oil and Gas Processing Facilities	6
CEU 07316	Construction Management	6
CMU 07318	Downstream Operations Practices	6
Total		**57**

Semester IV

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07404	Probability and statistics	6
GSU 07407	Research Methods for Engineers	3
CORE MODULES		
CMU 07419	Intercultural skills	6
EEU 07408	Electrical Power plant Systems	9
CMU 07421	Liquefied Natural Gas plant operations	6
CMU 07422	Occupational Health and Safety in oil and gas	9
CMU 07423	Semester IV Project	6
CMU 07424	Inspection and Maintenance of downstream plants	6
CMU 07425	Industrial Practical Training (IPT)	12
	Total	**63**

Total Credits at NTA Level 7 is 255, (Minimum credits required at level 7 is 240)

(k) MASTER OF ENGINEERING IN MAINTENANCE MANAGEMENT (NTA LEVEL 9)

Semester I

Module Code	Module Title	Credits
CORE MODULES		
CEMG 09101	Leadership Principles and Human Resource Management	9
CEMG 09102	Maintenance Management	12
CEMG 09103	Maintenance Organization and Planning	9
CEMG 09104	Maintenance Materials Management	9
GSMG 09101	Statistics in maintenance management	12
CEMG 09112	Financial Management	6
	Total	**57**
ELECTIVE MODULES		
EEMG 09101	Electrical Maintenance Workshop	9
EEMG 09102	Power Transmission and Distribution Lines Maintenance	9
CEMG 09105	Building Maintenance Management	9

MEMG 09101	Heavy Duty Equipment Maintenance	9
MEMG 09102	Fluid Handling Systems Maintenance	9
Total		**43**

Semester II

Code	Module Title	Credits
CORE MODULES		
CEMG 09206	System Engineering and Life Cycle Management	12
CEMG 09207	Maintenance System Design and Management	9
CEMG 09208	Computer Managed Maintenance System	9
CEMG 09209	Risk and Safety Management	9
CEMG 09210	Dissertation	60
	Total	**99**
Elective Modules		
EEMG 09203	Energy Management	12
EEMG 09204	Energy-Efficient Electric Motor Selection	9
CEMG 09211	Maintenance of Road and Road Structures	12
CEMG 09212	Maintenance for Water and Sanitation Infrastructures	9
MEMG 09203	Power Plant Maintenance	9
MEMG 09204	Industrial Equipment Maintenance	9
Total		**60**

Total credits at this level NTA 9 is 259, (minimum credits required at this level is 180.)

6.1.2 List of Academic Staff in the Department of Civil Engineering Lecturer and Head of Department

Lecturer and Head of Department

A. Thomas, BSc.Eng(Dar), MSc Eng(Dar), PhD (PRC)

Senior Lecturer

S S. Kassim, FTC Eng (KTC), ADE (DTC), MEng (Holland), GEng(T) GEng (IET), PhD (UK)
A.S. Oberlin, ADE (Public Health) (UCLAS), MSc (Environ.) (Holland), PhD Environment Mgt (Wageningen) Univ The Netherland

Lecturers

Rwandallah, FTC Eng (DTC), MSc. Eng (USSR), PhD (China), G. Eng (T)
S.J. Mbawala, FTC (DTC), ADE (DTC), MSc. Eng. (RSA), PhD, Geotechnical Eng. (UP-RSA)
J. Musagasa BSc Eng. (UDSM), MSc Eng. (UDSM), PhD (USA)
J. Malisa, BSc. Eng (UDSM), MSc. Eng (UDSM), MSc, Eng. (UDSM), PhD (UDSM/NTNU)
M.S. Ntiyakunze, AD Public Health (Ardhi Institute), MSc Env (Holland), PhD (ARU)

Assistant Lecturers

D.R. Singo, Diploma Ed. (Klerruu), BSc. Eng (UDSM),MSc (Highway) (UK), PEng (T)
J.A. Njau, AD Arch) (Ardhi Institute)
I.M. Kanuti, FTC Eng (DTC), MSc Eng (USSR)
Y.N. Ngoma, PGD (Geology) (Holland), MSc (Struct. Eng) (Byelorussia)
B.Y.B. Masangya, FTC Eng ADE (DTC), MSc.(Struct. Eng.) (UK)
M. Kongola, BSc. Mining (Zambia), MSc. Mining (UK)
B. Mvuoni, AD (Land Surv) Ardhi Institute
P. Mfaume, BSc.Geology (UDSM) MSc Hydrogeolog (UDSM)
A. L. Ndibalema, ADBE (Ardhi Inst), MSc (Facility Management) Leeds
J. Chacha, B.Eng (DIT), MSc(UK)
M. Kaswa, FTC Civ. Eng (DIT), ADE (Electr.&Telecom.) (DIT) Adv. Cert (T) FRG, MSc (UK)
*R. Mkemai, BSc. (Mining) (UDSM), MSc. (Mining & Geotechnical Eng) (Sweden)
J. Sandoka, BSc. (UDSM). MSc Env. Tech Mgt (ARU)
P. Sillah BSc (UDSM), MSc. (UDSM)
J. A. Tiibika , BSc. (UDSM), MSc. (NTNU)

Tutorial Assistant

F. M. Matata BSc. In Civil and Transportation Engineering (Co ET UDSM)

Principal Instructors I

C.A.J. Msulwa, FTC Eng (DTC), DE (Kleruu) DTE (DTC)

A. Ambogo Ad. Dip (Surveying – ARU), Post. Dipl. (UK) MSc (Geomatics – ARU)

Principal Instructors II

E.J. Mwansele, FTC Eng, DTE (DTC), Adv. Dip. IT (IFM)

*Z. Nuru. BSc. Mining (UDSM)

W. Shiyo B.Sc (UDSM) MSc (USA)

P.M.C. Njovu, FTC Eng (DTC), B. Eng (MIST)

J. L. Kato BSc. In Civil Engineering ARU

Laboratory Technician grade I

A.H. Hemed, FTC Eng, (DTC), BTEC Adv. Dip. (IT), (Soft-Tech Ltd., (UDSM))
Mwita, FTC Eng (TCA), Adv Cert. (Woodwork) (FRG
A. Nungu, FTC Eng (DTC), Adv. Cert. (Woodwork) (FRG), ADE (DIT)
C. P. James FTC in Civil Engineering (DIT)
Yasini M. Limia, OD (ATC)
Annasai Mathew OD (DIT)

6.2. DEPARTMENT OF COMPUTER STUDIES

7. This Department offers Computer Engineering, Information Technology and Multimedia & Film Technology at Ordinary Diploma (NTA Level 4 – 6), Bachelor of Engineering (NTA Level 7 - 8) and Masters in Computational Science and Engineering (NTA Level 9) programme. It also provides services to other academic Departments in teaching computer related modules. This department has adequate facilities as well as 35 qualified teaching staff and 1 technical supporting personnel. The teaching facilities as well as staffing level in terms of numbers and qualifications are constantly improved so as to support the above programmes.

(a) BASIC TECHNICIAN CERTIFICATE IN COMPUTER ENGINEERING AND IT – (NTA LEVEL 4)

Semester I

Module Code	**Module Title**	**Credits**	
FUNDAMENTAL MODULES			
		Credit for IT	**Credit for Eng.**
GST 04102	Basic Technical Communication skills	2	2
GST 04101	Algebra	5	5
SLTP 04101	Statics and Dynamics	3	3
GST 04103	Entrepreneurship Concepts and Context	3	3
CORE MODULES			
CSET 04102	Computer Systems Maintenance and Repair	12	12
CSET 04103	Computer basic Word Processing and Spreadsheet	12	12
ETT 04101	Basic Electronics	9	9
EET 04102	Principal of DC Network	12	12
MET 04104	Workshop Technology	9	9
Total Credits		**68**	**68**

Semester II

Module Code	Module Title	Credits IT	Credits for Computer Eng.
FUNDAMENTAL MODULES			
GST 04205	Communication Skills	2	2
GST 04204	Trigonometry and Vectors	5	5
SLTP 04208	Gravitation and simple harmonics motion	3	3
GST 04206	Small Business Development	3	3
CORE MODULES			
CSET 04205	Computer Peripherals Maintenance and Repair	12	12
CSET 04206	Local Area Network	12	12
CSET 04207	Database fundamentals	12	12
EET 04205	Principal of AC Network	09	09
IT and Computer Engineering Total		58	58

Total Credits at NTA 4 Computer Engineering: 126. (Minimum credits required at NTA 4:120)
Total Credits at NTA 4 IT: 126 (Minimum credits required at NTA 4 120)

(b) TECHNICIAN CERTIFICATES IN COMPUTER ENGINEERING AND IT (NTA LEVEL 5)

Semester I

Module Code	Module Title	Credits	
FUNDAMENTAL MODULES			
		Credit for IT	**Credit for Compute r Eng.**
GST 05101	Fundamental Rule of counting, matrices and Differentiation	5	5
GST 05102	Business Communication	2	2

GST 05103	Business Start Up and Management	2	3
SLT P 05101	Strength of Materials & Rotational Dynamics	3	3
CORE MODULE			
CSET 05102	Computer Programming	06	06
CSET 05103	Operating Systems	12	12
EET 05102	Instrumentation	09	09
EET 05103	Analogue Electronics	06	06
EET 05104	Digital Electronics	06	06
MET 05101	Engineering Drawing	9	9
EET 04104	Electrical Installation & Draughting	12	12
CSET 05108	Industrial Practical Training	10	10
Total credits		82	83

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication & Technical Presentations	2
GST 05206	Business Financial Management & Accounting	3
GST 05207	Research Methods for Technicians	3
SLT P 05202	Fluid Mechanics	3
CORE MODULES		
CSET 05205	Data Structure and File Handling	6
CSET 05206	Computerized System Maintenance and Repair	12
CSET 05207	Microprocessor Technology	6
CSET 05208	System Analysis & Design	7
CSET 05209	Wide Area Net work and Internetworking	12
Total credit for IT and Computer Eng.		**59**

Total Credits at NTA 5 Computer Engineering: 142. (Minimum credits required at NTA 5: 120). Total Credits at NTA 5 IT: 141 (Minimum credits required at NTA 5: 120).

(c) ORDINARY DIPLOMA (OD) IN COMPUTER ENGINEERING – NTA LEVEL 6

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06101	Conics and Differential Equations	5
GST 06102	Engineering study skills	2
SLTP 06102	Electromagnetism	3
GST 06103	Formalization, Internationalization and E-business	3
CORE MODULE		
CSET 06102	Software Engineering Fundamentals	9
CSET 06103	Multimedia Concepts	9
CSET 06106	Signal and Data Processing Circuits	6
CSET 06105	Automation and Control Concepts	9
CSET 06107	Basic Computer Security and Data Integrity	9
ETT 06104	Electronics Design	9
CSET 06108	Project Data Collection	10
CSET 06110	Industrial Practical Training	10
Total credit for Computer Eng.		**84**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06204	Complex number, numerical methods and series	4
SLTP 06202	Heat and Thermodynamic	2
GST 06205	Technical Writing	2
GST 06206	Business Planning	2
CORE MODULE		
CSET 06209	Web Design and Hosting	9
CSET 06211	Multimedia Application Production	9
CSET 06212	Industrial Automation System	9
CSET 06213	Network Management	9

CSET 06215	Laws and Cyber-Forensic	9
CSET 06214	Project	10
Total credit for Computer Eng.		**65**

Total Credits at NTA 6: 149 (Minimum credits required at NTA 6: 120)

(d) ORDINARY DIPLOMA PROGRAMME IN INFORMATION TECHNOLOGY (IT) (NTA LEVEL 6)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06103	Formalization, Internationalization and E- Business	2
CORE MODULE		
CSIT 06101	Database Management	12
CSET 06103	Multimedia Concepts	12
CSET 06104	IT Security	9
CSIT 06102	Open source operating system	9
CSIT 06103	Web Application Design and Hosting	9
CSIT 06106	Basics of Object Oriented Programming	9
CSET 06108	Industrial Practical Training	10
CSET 06107	Project I	10
Total credit for IT		**80**

Semester II

Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06205	Technical writing	2
GST 06206	Business planning	2
CORE MODULE		
CSIT 06202	IT Systems Analysis	6
CSIT 06203	ICT Policies and Management	9
CSIT 06204	Introduction to e-commerce	6
CSET 06211	Multimedia Application Production	12
CSET 06213	Network Management	9
CSET 06214	Project II	10

Total credit for IT	53

Total credits at NTA 6: 133 (Minimum credits required at this level 120)

(e) BASIC TECHINICIAN PROGRAMME IN MULTIMEDIA AND FILM TECHNOLOGY (NTA 4)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 04102	Basic Technical Communication skills	2
GST 04103	Entrepreneurship Concepts and Context	3
GST 04101	Algebra	5
SLT 04101	Static and Dynamics	3
CORE MODULES		
CSMT 04101	Introduction to Graphic Design	12
CSMT 04102	Multimedia equipment and devices	9
CSMT 04103	Photography and Digital Imaging	9
CSMT 04104	Word processor presentation and internet	12
TOTAL		**55**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
GST 04204	Trigonometry and Vectors	5
SLTP 04202	Gravitation and simple harmonics motion	3
CORE MODULES		
CSMT 04206	Multimedia Hardware Maintenance and repair	12
CSMT 04207	Screen Writing and Storyboarding	12
CSMT 04208	Spreadsheet and database	12
CSMT 04209	Video Fundamental	6
CSMT 04210	Web Design and Applications	12
TOTAL		**67**

Total credits at NTA 4: 122 (Minimum credits required at NTA 4:120)

(f) TECHINICIAN PROGRAMME IN MULTIMEDIA AND FILM TECHNOLOGY (NTA 5)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rule of counting, matrices and Differentiation	5
GST 05102	Business Communication	2
GST 05103	Business Start Up and Management	3
CORE MODULES		
CSMT 05101	Computer Programming for Multimedia	6
CSMT 05102	Digital Video Production	12
CSMT 05103	Introduction to 2D and 3D Animation	12
CSMT 05104	Lighting for Film Production	9
CSMT 05105	Music Production	9
CSMT 05106	Industrial Practical Training	10
TOTAL		**68**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication & Technical Presentations	2
GST 05206	Business Financial Management & Accounting	3
GST 05207	Research Methods for Technicians	3
CORE MODULES		
CSMT 05207	Advanced 3D Animation	9
CSMT 05208	African Cinema	6
CSMT 05209	Game Design	9
CSMT 05210	Interactive Media Broadcasting	9
CSMT 05211	Sound Techniques for Video and Film	9
TOTAL		**55**

Total credits at NTA 4: 123 (Minimum credits required at NTA 4:120)

(g) DIPLOMA PROGRAMME IN MULTIMEDIA AND FILM TECHNOLOGY (NTA6)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06101	Conics and Differential Equations	3
GST 06102	Engineering Study Skill	2
SLT 06101	Electromagnetism	3
GST 06103	Formalization, Internationalization and E-business	2
CORE MODULES		
CSMT 06101	Advertising Graphics Designs	9
CSMT 06102	Compositing and Visual Effects	6
CSMT 06103	Introduction to Film Production Management	9
CSMT 06104	Multimedia Authoring Tools	6
CSMT 06105	Music DJ	9
CSMT 06106	Junior Project	10
CSET 06110	Industrial Practical Training	10
TOTAL		**69**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06204	Complex Numbers, Numerical Methods and Series	4
SLT 06202	Heat and Thermodynamic	2
GST 06205	Technical writing	2
GST 06206	Business planning	2
CORE MODULES		
CSMT 06207	3D Animation Application & Production	9
CSMT 06204	Media Law and Ethics	6
CSMT 06209	Music and Film Composition	9
CSMT 06210	Web Development	9
CSMT 06211	Senior Project	10
TOTAL		**53**

Total credits at NTA 6: 122 (Minimum credits required at NTA 6: 120)

(h) GENERAL COURSE PROGRAM (COMPUTER ENGENEERING)

Semester I

Module Code	Module Title	Credit
FUNDAMENTALS MODULES		
GST 06107	Algebra and Application of Integrals	4
CORE MODULES		
CSETG 4103	Computer Basics , Word Processing and Spreadsheets	12
CSETG 5102	Computer Programming	06
CSETG 4102	Computer Systems Maintenance and Repair	12
CSETG 6105	Automation and Control Concepts	09
Total Credits		**43**

Semester II

Code	Module Title	Credit
GST 05204	Intergrated Statistics and Probability	**5**
CSETG 04206	Local Area Networking	12
CSETG 04205	Computer Peripherals Maintenance and Repair	12
CSETG 06110	Industrial Training Practical	10
CSETG 61103	Multimedia Concept	9
CSETG 06209	Web Design and Hosting	9
CSET 05205	Data Structure and File Handling	6
Total Credits		**63**

Total credits at NTA 6:106 (Minimum credits required at NTA 6:120)

(i) HIGH DIPLOMA IN COMPUTER ENGINEERING NTA 7

Semester I

Module Code	Module Title	Credit
FUNDAMENTALS MODULES		
EEU 07105	Fundamentals of AC Circuit Analysis	6
GSU 07101	Calculus	6
GSU 07105	Computing Using Mathematical Software	6
GSU 07106	Technical Communication Skills	6
CORE MODULES		
ETU 07101	Analogue Electronics	6
ETU 07103	Electronic Devices	6
ETU 07104	Measurements and Instrumentation	6
ETU 07123	Introduction to Communications Systems	6
MEU 07107	Engineering Mechanics	3
EEU 07109	Principles of Electrical Machines	6
CSEU 07101	Object Oriented Programming	9
Total		**66**

Semester II

Module Code	Module Title	Credit
FUNDAMENTALS MODULES		
EEU 07206	Control Engineering Analogue Analysis	6
MEU 07212	Industrial Management	6
GSU07202	Advanced Calculus	6
CORE MODULES		
ETU 07206	Digital Electronics	6
ETU 07207	Electronic Circuits	6
ETU 07224	Communications Systems	6
CSEU 07201	Data structure and Computer programming	9
CSEU 07202	Computer Networks	9
CSEU 07203	Computer System Engineering	9
Total		**63**

Semester III

Code	Module Title	Credit
FUNDAMENTALS MODULES		
MEU 07322	Finance and Human Resources Management	6
MEU 07316	Engineering Service Drawing	6
GSU 07303	Differential Equations and Complex Variables	6
CORE MODULES		
ETU 07311	Electronics Design and Fabrication	6
CSEU 07301	Data base Systems	9
CSEU 07302	Microprocessor	9
CSEU 07303	Computer Aided System Technology	9
CSEU 07304	Operating Systems	9
CSEU 07305	Industrial Practical Training	12
Total		**72**

Semester IV

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
MEU 07428	Engineering Operations Management	6
GSU 07404	Probability & Statistics	6
CORE MODULES		
GSU 07407	Research Methods for Engineers	3
CSEU 07401	Digital Signal Processing	9
CSEU 07402	Multimedia Application Production	9
CSEU 07403	Industrial Automation	9
CSEU 07404	System Analysis and Design	9
CSEU 07405	High Performance Computing	9
Total		**63**

Total Credits at NTA 7: 264 (Minimum credits required at NTA 7: 240)

(j) BACHELOR OF COMPUTER ENGINEERING NTA 8

Semester I

Module Code	Module Title	Credits
MEU 08106	Laws For Engineers	6
CSEU 08101	Computer Graphics	6
CSEU 08102	Expert System and Interactive multimedia	9
CSEU 08103	Internet Technologies	9
CSEU 08104	Real Time System Design	6
CSEU 08105	Robotics And Intelligent Systems	9
CSEU 08106	Software Engineering	9
CSEU 08107	Project Data collection	18
CSEU 08108	Industrial Practical Training	12
Total		**84**

Semester II

Module Code	Module Title	Credits
GSU 08201	Entrepreneurship for Engineers	3
CSEU 08201	User Interface Design	6
CSEU 08202	Computer Networks and Teletraffic Engineering	9
CSEU 08203	Embedded Systems design	6
CSEU 08204	Industrial Robotics	9
CSEU 08205	Project	18
Total		**51**

Total Credits at NTA 8: 135 (Minimum credits required at NTA 8: 120)

Elective Modules

Module Code	Module Title	Credits
ETU 08213	Cellular Mobile Radio Systems	6
ETU 08210	Fiber Optic Communication	6
Total		**12**

(k) MASTER IN COMPUTATIONAL SCIENCE AND ENGINEERING (MCSE) NTA LEVEL 9

Semester I

Core Modules

Module Code	Module Title	Credits
CSCG 09101	High Performance Computing	9
GSCG 09101	Advance Numerical Methods	12
CSCG 09102	Advance Computational Algorithms	12
GSCG 09103	Numerical Methods for Ordinary Differential	9

	Equations	
CSCG 09103	Advance Computer Programming	12
	Total Credits	54

Semester II

Core Modules

Module Code	Module Title	Credits
CSCG 09203	Numerical Methods for Partial Differential Equations	9
CSCG 09204	Advance Parallel Programming	9
CSCG 09205	Computer Graphics and Visualization	9
CSCG 09204	Mathematical Models Analysis and Simulation	6
	Total Credits	**33**

Elective Modules

Module Code	Module Title	Credits
CECG 09201	Computational Fluid Dynamics	9
CSCG 09206	Machine Learning	9
CSCG 09207	Data Mining and Analytics	9
CSCG 09205	Computational Methods in Optimization	9
CSCG 09208	Image Progressing	9
	Total Credits	**45**

Semester III

Core Modules

Code	Module Title	Credits
CEMG 09201	Leadership Principles and human resources management	9
CSCG 09309	Higher Performance System Integration	9
SCSG 09311	Advance Research Methods	6
	Total Credits	24

Elective Modules

Code	Module Title	Credits
EECG 09301	Computation Electromagnetics	9
CECG 09302	Advance Computational Fluid Dynamics	9
GSCG 09306	Computational Finance	9
LTCG 09301	Computational Biology	9
CSCG 09310	Computational Cyber Forensic	9
	Total Credits	**45**

Dissertation

Modules

Code	Module Title	Credits
CSCG 09312	Dissertation	50
	Total Credits	**50**

Total credits at this level NTA 9 is 251, (Minimum credits required at this level is 180)

6.2.1 List of Academic Staff in the Department of Computer Studies

Lecturer and Head of Department

D.H. Kisanga. Cert. (Comp. Tech.) (Japan), BSc. (Ed.) (UDSM), MEng. (Comp.) (China), PGC (Res. Practice) (UK), PhD (UK)

Senior Lecturer

****A. Nungu. BSc (Comp.) (UDSM), MSc. (Comp.) (Sweden), PhD (Sweden)

Lecturers

D.S. Simbeye. B.Eng. (Electronics) (Russia), MEng (Russia), PhD (China)

V. A. Ndume. Adv. Dip. (Comp.) (IFM), PGD (Comp.) (UDSM), MSc (Comp.) (UDSM), PhD (NMAIST)

S. Kimbi. BSc. (Comp.) (UDSM), MSc (Comp.) (Sweden), MBA (Mzumbe), PhD (NM-AIST), CISA, CISM

J. Y. Challo. Cert. (Comp. Tech.) (Japan), BSc. (Ed.) (UDSM), MEng. (Comp.) (China)

Assistant Lecturers

S. J. Mwalembe. BSc. (Ed.) (UDSM), MSc. (Electronics) (UDSM)

P.L. Ng'imba. BSc. (Electronics) (UDSM), MSc. (Multimedia Eng.) (UK)

F. Mwalongo. BSc. (Comp.) (UDSM), MSc (India)

I. Hassan. BSc IT (Malaysia), PGD (Mobile Computing) (Pune-India), MSc IT (Malaysia)

D.H. Clement. FTC (Comp.) (DIT), BSc. (UDSM), MSc. (China)

N. Maganga. BSc. (Comp.), MSc. (Comp.) (UDSM)

J. J. Nnko. BEng&Tech. (Comp.) (Russia), MEng (Comp.) (Russia), MSc. (Info. Sys.) (Russia)

R. Jesse. B.Eng. (Comp) (DIT), MSc (Software Eng.) (China)

*H.D. Shimwela. B. Eng. (Comp.) (Russia), MSc (Comp.) (South Korea)

*N.M. Mwasaga. MSc (Comp.) (Ukraine)

*C. Budoya. BSc (UDSM), MSc (Comp.) (UDSM)

*H. Fimbombaya. BEng (Comp.) (Russia), MSc (Digital Comm.) (UK)

*E. Kondela. BEng (Comp.) (Russia), MEng. (China)

*G. Tesha. Cert (Music Prod) (Thailand), FTC (Comp.) (DIT), BEng (Telecoms) (DIT), MEng (Comm.) (China)

*S. M. Wambura. BEng (Comp. Des. & Tech.) (Russia), MEng (Comp. Des. &Tech.) (Russia)

*E. Tongora. BSc (Comp. Syst. & NW) (Poland), MSc (Comp. Syst. & NW) (Poland)

*A. Mbilinyi. BEng. (Comp. Eng.) (DIT), MSc (Info. Sc.) (Japan)

Tutorial Assistants

V.E. Kannole. BSc. (Comp.) (IFM)

H. Alexander. B.Eng. (Comp.) (SJUIT)

*J.M. Selestine. B.Eng. (Comp.) (SJUIT)

*T. Isakwisa. BSc. (Comp.) (UDSM)

Principal Instructor I

**G. R. Lushaka. BSc (Electronics) (Canada)

Senior Instructors

M. Khalfani. FTC (Comp.) (DIT), B. Eng (Comp.) (DIT), CNSS (HYD-INDIA), MSc. (Info Security) (IAA)

D. Shija. MEng (China)

*H.F. Msechu. B.Tech (IT) (SJCET), PGD (Adv. Computing) (Pune-India)

*L. Champuku. BSc. (Comp. Sc.) (IFM), PGD (Adv. Computing) (Pune-India)

Instructors

D. Kaaya. Dip. (Comp. Eng) (DIT), BEng. (Comp.) (DIT), MSc (Comp. Sc.) (China)

N.D. Kimario, Dip. (Comp. Eng) (DIT), BEng. (Comp.) (DIT), MSc (Electical. Eng & Comp. Sc.) (Japan)

C.C. Ngirwa. BSc. (Comp. & Info. Security) (UDOM)

*O.O. Mwambe. BSc. (Comp.) (Ukraine)

Technicians

V. Sichirima. Cert. Trade Test II (Electrical) VETA

*On study leave

** on contract

****on secondment

6.3. DEPARTMENT OF ELECTRICAL ENGINEERING

The Department offers NTA Ordinary Diploma (level 4-6) in Electrical Engineering, Biomedical Equipment Engineering, and Renewable Energy Technology. It also offers (NTA level 7-8) Bachelor of Engineering program. The department has adequate resources which include laboratory and teaching facilities, twenty four qualified teaching staff members with various qualifications and two competent and experienced technicians. Details of the courses are provided below.

(a). BASIC TECHNICIAN CERTIFICATE IN ELECTRICAL ENGINEERING –(NTA LEVEL 4)

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
SLTP04101	Statics and Dynamics	3
GST 04102	Basic Technical Communication skills	2
GST 04103	Entrepreneurship Concepts and Context	3
GST 04101	Algebra	5
CSET 04101	Computer Basic Word Processing and Spreadsheet	2
CORE MODULES		
MET 04104	Workshop Technology	9
MET 04101	Basic Technical Drawing	9
EET 04102	Principles of DC Networks	12
EET 04104	Electrical Installation and Draughting	12
Total		**57**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
SLTP04202	Gravitation & Simple Harmonic Motion	3
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
GST 04204	Trigonometry and vectors	5
CSET 04201	Spreadsheet and Database	2
CORE MODULES		
EET 04202	Principles of AC Networks	9

EET 04204	Design of Electrical Installation Systems	12
EET 04203	Electrical Measurement and Measuring Instruments	9
EET 04205	Electrical Engineering Materials	9
EET 04201	Electrical Power Utilization	9
Total		**63**

Total Credits at NTA 4: 120 Minimum credits required at NTA 4: 120

(b). TECHNICIAN CERTIFICATE IN ELECTRICAL ENGINEERING (NTA LEVEL 5)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rules of Counting, Matrices and Differentiation	5
GST 05102	Business Communication	2
GST 05103	Business Start Up and Management	3
SLTP05101	Strength of Materials and Rotational Dynamics	3
CSET 05101	Presentation and Internet	2
CORE MODULES		
EET 05101	DC Machines	12
EET 05102	Industrial Electronics	9
EET 05104	Power Plants	9
EET 05105	Electrical Instrumentation	9
EET 05100	Industrial Practical Training	10
Total		**64**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentations	2
GST 05206	Business Financial Management and Accounting	3
GST 05207	Research Methods for Technicians	3
SLTP05202	Fluid Mechanics	3
CSET05201	Computer Aided Design	2
CORE MODULES		
EET 05201	AC Machines	12
EET 05202	Electronic Control Circuits	9

EET 05203	Digital Electronics	9
EET 05204	Power Transmission and Distribution	9
EET 05205	MATLAB	3
EET 05206	Computer Aided Electrical Drawing	3
Total		**63**
ELECTIVE MODULES		
CSET 05102	Computer Programming	6
CSET 05204	Microprocessor Technology	6
ETT 05206	Telecommunication	6
Total		**18**

Total Credits at NTA 5: 127 Minimum credits required at NTA 5: 120

(c). DIPLOMA IN ELECTRICAL ENGINEERING NTA (LEVEL 6)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06101	Conics and Differential Equation	5
GST 06102	Engineering Study Skills	2
SLTP06101	Electromagnetism	3
GST 06103	Formalizations, Internationalization` and E-Business	3
CSET 06101	Basic Computer Programming	2
CORE MODULES		
EET 06101	Electrical Machines – Rewinding	9
EET 06105	Control Engineering	12
EET 06106	Elements of Power Electronics	9
EET 06107	Power Protection	9
EET 06100	Project Data Collection	10
EET 06102	Industrial Practical Training	10
	Total	**74**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06204	Complex number, Numerical Methods and Series	4
GST 06205	Technical Writing	2
SLTP06202	Heat and Thermodynamics	2
GST 06206	Business Planning	2
CSET 06201	Computer Programming and Data Structure	2
CORE MODULES		
EET 06206	Power Electronics Circuits	9
EET 06207	Renewable Energy Technologies	9
CSET 06204	Industrial Automation Systems	9
EET 06205	Electrical Maintenance and Repair	6
EET 06208	Electric Drives	9
EET 06200	Project	10
	TOTAL	**64**
ELECTIVE MODULES		
MET 06211	Environmental Engineering	6
MET 05214	Automotive Electricity and Electronics	9
ETT 06206	Practical Telecommunication and system Networking	9
	Total	**24**

Total Credits at NTA 6: 138 Minimum credits required at NTA 6: 120

(d). BASIC TECHINICIAN CERTIFICATE IN BIOMEDICAL EQUIPMENT ENGINEERING (NTA LEVEL 4)

Semester I

Code Module	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04101	Algebra	5
GST 04102	Basic Technical Communication Skills	2
GST 04103	Entrepreneurship Concepts and Context	3
CSET 04101	Computer Basics and Word Processing	2

SLTP04101	Statics and Dynamics	3
CORE MODULES		
MET 04104	Workshop Technology	9
MET 04101	Basic Technical Drawing	9
EET 04102	Principles of DC Networks	12
ETT 04101	Basic Electronics	9
EEBT 04101	Human Anatomy and Physiology	9
EEBT 04102	Introduction to Biomedical Field , Hospital Safety and Standards	6
Total		**69**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
CSET 04201	Spreadsheet and Database	2
SLTP04202	Gravitation and Simple Harmonic Motion	3
CORE MODULES		
EET 04202	Principles of AC Networks	9
ETT 04204	Electronics Circuits	12
EEBT 04201	Doctors' Equipment	6
EEBT 04202	Basic Laboratory Equipment	6
EEBT 04203	Basic Theatre Equipment	6
EEBT 04204	Dental Equipment	6
EEBT 04205	Basic Intensive Care Unit Equipment	6
Total		**66**

Total Credits for NTA level 4 is 135, minimum required total credits at this level is120.

(e). TECHNICIAN CERTIFICATE IN BIOMEDICAL EQUIPMENT ENGINEERING (NTA LEVEL 5)

Semester I

Code Module	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rules of Counting, Matrices and Differentiation	5
GST 05102	Business Communication	2
SLTP05101	Strength of Materials and Rotational Dynamics	3
GST 05103	Business Start Up and Management	3
CSET 05101	Presentation and Internet	2
CORE MODULES		
EEBT 05101	Patient Monitoring Equipment	9
EEBT 05102	Optician and Dentistry Equipment	9
EEBT 05103	Laboratory Analyzer equipment	9
EEBT 05104	Theatre Equipment	9
EET 05101	DC Machines	12
EET 05102	Industrial Electronics	9
EEBT 05105	Biomedical Instrumentation	12
EEBT 05100	Industrial Practical Training	10
Total		**94**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentations	2
SLTP05202	Fluid Mechanics	3
GST 05206	Business Financial Management and Accounting	3
CSET05201	Computer Aided Design	2
GST 05207	Research Methods for Technicians	3
CORE MODULES		
EEBT 05201	Fundamentals of XRAY and CTSCAN	9
EEBT 05202	Principles of Magnetic Resonance Imaging	9
EEBT 05203	Radiotherapy and Lithotripter	9

EEBT 05204	Dialysis and Ultrasound Technology	9
EET 05203	Digital Electronics	9
EET 05201	AC Machines	12
Total		**74**

Total Credits for NTA Level 5 is 168, required minimum total credits at this level 120.

(f). DIPLOMA IN BIOMEDICAL EQUIPMENT ENGINEERING (NTA 6) NTA LEVEL 6

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 06101	Conics and Differential Equations	5
GST 06102	Engineering Study Skills	2
SLTP06101	Electromagnetism	3
GST 06103	Formalisation, Internationalisation and E-Business	3
CSET 06101	Basic Computer Programming	2
CORE MODUES		
EEBT 06101	Biomedical Equipment Engineering Management	9
EEBT 06102	Biomedical Computer Networks and Data Communications	9
ETT 05208	Principles of Signal Modulation and Demodulation	6
ETT 06104	Electronic Design	9
EEBT 06103	Biomedical Equipment Project Data Collection	10
CSET 05207	Microprocessor Technology	6
SLTP06104	Laboratory Stores Management	6
EET 06102	Industrial Practical Training	10
Total		**80**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 06204	Complex Number, Numerical Methods and Series	4
GST 06205	Technical Writings	2
SLTP06202	Heat and Thermodynamics	2
GST 06206	Business Planning	2
CSET 06201	Computer Programming and Data Structure	2
CORE MODULES		

EEBT 06201	Training Methodology	6
ETT 06208	Communication Systems	9
EEBT 06203	Medical Devices Standards	6
EEBT 06204	Work Ethics	2
EEBT 06205	Biomedical Equipment Project	10
SLT 05206	Basic Environmental Management	6
Total		**51**

Total Credits for NTA Level 6 is 131, minimum total credits required at this level 120.

(h). BASIC TECHNICIAN PROGRAMME IN RENEWABLE ENERGY TECHNOLOGY (NTA –Level 4)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
SLTP04101	Statics and Dynamics	3
GST 04102	Basic Technical Communication Skills	2
GST 04103	Entrepreneurship Concepts and Context	3
GST 04101	Algebra	5
CSET 04101	Computer Basics and Word Processing	2
CORE MODULES		
MET 04104	Workshop Technology	9
MET 04101	Basic Technical Drawing	9
EET 04102	Principles of DC Networks	12
EET 04104	Electrical Installation and Draughting	12
EERT 04107	Renewable Energy Market Policies	6
	Total	**63**

SEMESTER II

Code	Module Title	Credits
FUNDAMENTAL MODULES		
SLTP04202	Gravitation and Simple Harmonic Motion	3
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
GST 04204	Trigonometry and Vectors	5
CSET 04201	Spreadsheet and Database	2
CORE MODULES		
EET 04202	Principles of AC Networks	9
EET 04203	Electrical Measurement and Measuring Instruments	12
EET 04205	Electrical Engineering Materials	9
EERT 04208	Energy Storage Systems	6

EERT 04209	Alternative Sources of Energy	6
Total		**57**

Total credits at NTA 4 is 120, Minimum credits required at NTA 4 is 120.

(i). TECHNICIAN PROGRAMME IN RENEWABLE ENERGY TECHNOLOGY (NTA – Level 5)

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rules of Counting, Matrices and Differentiation	5
GST 05102	Business Communication	2
GST 05103	Business Start Up and Management	3
SLTP05101	Strength of Materials and Rotational Dynamics	3
CSET 05101	Presentation and Internet	2
CORE MODULES		
EERT 05101	Industrial Practical Training	10
EERT 05107	Energy Utilization and Management	9
EERT 05108	Solar Energy	9
EET 05101	DC Machines	12
EET 05102	Industrial Electronics	9
EET 06106	Elements of Power Electronics	9
Total		**73**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentations	2
GST 05206	Business Financial Management and Accounting	3
GST 05207	Research Methods for Technicians	3
SLTP 05202	Fluid Mechanics	3
CSET05201	Computer Aided Design	2
CORE MODULES		
EET 05201	AC Machines	12
EET 05205	MATLAB	3

EERT 05208	Photovoltaic System Design	9
EERT 05203	Energy Systems Instrumentation	6
EERT 05209	Hydropower Technology	9
Total		**57**
ELECTIVE MODULES		
EERT 05109	Green Building Technology and Design	3
EERT 05209	Solar Heating Systems	3
Total		**6**

Total credits at NTA 4 is 130, Minimum credits required at NTA 4 is 120.

(j). ORDINARY DIPLOMA PROGRAMME IN RENEWABLE ENERGY TECHNOLOGY (NTA –Level 6)

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 06101	Conics and Differential Equations	5
GST 06102	Engineering Study Skills	2
SLTP06101	Electromagnetism	3
GST 06103	Formalizations, Internationalization and E-Business	3
CSET 06101	Basic Computer Programming	2
CORE MODULES		
EERT 06101	Industrial Practical Training	10
EERT 06112	Geothermal Energy	6
EERT 06107	Sustainable Energy Systems	6
EERT 06113	Bio Energy Technologies	9
EERT 06100	Project Data Collection	10
EET 06206	Special Electrical Machines	9
Total		**62**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 06204	Complex Number, Numerical Methods and Series	4
GST 06205	Technical Writing	2
SLTP06202	Heat and Thermodynamics	2
GST 06206	Business Planning	2
CSET 06201	Computer Programming and Data Structure	2
CORE MODULES		
EERT 06215	Hybrid Renewable Electric Systems	9
EERT 06216	Maintenance in Renewable Energy Systems	9
EERT 06217	Wind Systems Installation	9
EERT 06200	Renewable Energy Project	10

EERT 06201	Power Electronics Circuits	6
EERT 06214	Low Cost Rural Distribution Systems	3
Total		**61**
ELECTIVE MODULES		
EERT 06213	Biogas Reactor Construction	3
Total		**3**

Total credits at NTA 4 is 123, Minimum credits required at NTA 4 is 120.

(k). GENERAL COURSE PROGRAMME FOR BENG (ELECTRICAL ENGINEERING)

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST G6107	Algebra and Application of Integrals	4
CSET G4101	Computer Basics and Word Processing	2
CORE MODULES		
MET G4104	Workshop Technology	9
MET G4101	Basic Technical Drawing	9
EET G4104	Electrical Installation and Draughting	12
EET G4202	Principles of AC Networks	9
EET G5203	Electrical Measurements and Measuring Instruments	12
EET G5102	Industrial Electronics	9
Total		**66**

Semester II

Module Code	Module Title	Credit
CORE MODULES		
EET G5202	Electronic Control Circuits	9
EET G5204	Electrical Instrumentation	9
EET G5206	Computer Aided Electrical Drawing	3
EET G6105	Control Engineering	12
EET G6205	Electrical Maintenance and Repair	6
EET G5200	Industrial Practical Training	10
Total		**49**

(I). HIGHER DIPLOMA IN ELECTRICAL ENGINEERING-NTA 7

Semester I

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07101	Calculus	6
CSEU 07101	Object Oriented Programming	9
GSU 07105	Computing Using Mathematical Software	6
MEU 07107	Engineering Mechanics	3
GSU 07106	Technical Communication Skills	6
CORE MODULES		
ETU 07101	Analogue Electronics	6
EEU 07101	Engineering Drawing	6
EEU 07103	Power Plants	6
ETU 07104	Instrumentation and Measurements	6
EEU 07105	Fundamentals of AC Circuits Analysis	6
EEU 07109	Principles of Electrical Machines	6
Total		**66**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07202	Advanced Calculus	6
MEU 07212	Industrial Management	6
CSEU 07201	Data Structure and Programming	9
CORE MODULES		
EEU 07202	Electrical Engineering Materials	6
EEU 07203	Electrical Power Transmission Distribution	9
EEU 07205	Electrical Networks Modelling	6
EEU 07206	Control Engineering Analogue Analysis	6
ETU 07206	Digital Electronics	6
EEU 07209	DC Machines	9
EEU 07201	Electrical Networks Transients	6
Total		**69**

Semester III

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07303	Differential Equations and Complex Variables	6
MEU 07322	Finance and Human Resource Management	6
CSEU 07302	Microprocessor	9
CORE MODULES		
EEU 07301	Engineering Electromagnetics	6

EEU 07303	Electrical Power Systems Modelling	6
EEU 07300	Industrial Practical Training	12
EEU 07306	Control Engineering Analogue Design	6
EEU 07309	A. C. Electrical Machines	9
MEU 07316	Engineering Service Drawing	6
Total		**66**

Semester IV

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07404	Probability and Statistics	6
MEU 07428	Engineering Operation Management	6
GSU 07407	Research Methods for Engineers	3
CSEU07203	Computer System Engineering	9
CORE MODULES		
EEU 07403	Fault Analysis and Power Systems Stability	9
CSEU07403	Industrial automation	9
EEU 07405	Active and Passive Filter Design	6
EEU 07409	Special Electrical Machines	6
ETU 07207	Electronic Circuits	6
Total		**60**

Total Credits at NTA 7: 261 Minimum credits required at NTA 7: 240.

(m). BACHELOR OF ELECTRICAL ENGINEERING (ENGINEERING NTA Level 8)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
MEU 08101	Laws for Engineers	6
ETU 07311	Electronic Design and Fabrications	6
CSEU 08104	Real Time System Design	6
CORE MODULES		
EEU 08103	Power System Protection	9
EEU 08106	Control Engineering Digital Analysis	6
EEU 08107	Power Electronics Devices	6
EEU 08102	Electrical Machines selection	6
EEU 08100	Project Data Collection	18
EEU 08104	Industrial Practical Training	12
Total		**75**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GSU 08201	Entrepreneurship for Engineers	3
CORE MODULES		
EEU 08206	Control Engineering Digital Design	9
EEU 08207	Power Electronics Applications	6
EEU 08208	Digital Systems Engineering	9
EEU 08200	Project	18
EEU 08209	High Voltage Engineering	6
Total		**51**
ELECTIVE MODULES		
CSEU 08203	Embedded System Design	6
EEU 08201	Renewable Energy Technologies	6
Total		**12**

Total Credits at NTA 8: 132 Minimum credits required at NTA 8: 120

List of Academic Staff in the Department of Electrical Engineering

Lecturer and Head of Department

S.F.M. Karugaba, BSc. Eng (UDSM), MS Electrical Eng. (USA), PhD Eng. (USA), G. Eng (T), MIEEE (USA)

Senior Lecturers

M. A. Kusekwa, MSc, Eng. (Sofia), PhD. Electrical Power Eng. (RSA) P. Eng (T) C Eng. (T), MIET

Lecturers

**B. B. Saanane, Cert Workshop Mgt (Belgium), MSc. Eng. (Moscow), P. Eng (T) C. Eng. (T), MIET, Ph.D (UDSM)

**C. Msigwa, Msc (Russia), PhD. Electr. Power Sys. (UDSM)

R. C. Kiiza, BSc. Eng. (UDSM), MSc Eng (UDSM), PhD (KTH - Sweden), MIEEE (USA)

T. Ndimba, FTC Elect. Eng. (TCA), BSc Eng (Dar), MSc (Electr.) (UDSM)

G. G. Moshi, B.Sc. (UDSM), MSc EE&RE Sys (UK), PhD (POLIMI)

Assistant Lecturers

S. D. Kabingo, B.Sc. Eng (UDSM), MSc. Eng (USA)

**P. L.T. Yakob, FTC. Tel. Eng. (DTC), Diploma Elect. (DTC) PGD(UDSM), MSc (UDSM)

A. H. Abel FTC. Eng (DTC,) BSc (UDSM), MSc (UDSM)

J. F. Mushi, FTC. Eng (MTC), ADE. Eng. (DIT), MSc (China)

Ass. Lecturers

*M. Juma, FTC Electrical Eng. (KTC),B. Eng (DIT), MSc.(Electrical) (China)

A. Liwondo, ADE (DIT), MEng.MM (DIT)

H. Libani, FTC Electrical Eng. (ATC), B. Eng (DIT), MSc. (UDSM)

Senior Instructor I

D.P. Msangi, DTE (DTC), FTC Eng (TCA)

Tutorial Assistants

*E. Mmari, FTC Electrical Eng. (ATC), B. Eng Electrical (DIT)

E. Michael, FTC Electrical Eng. (MTC), B. Eng Electrical (DIT), P.Eng (T)

Instructor II

D. Bahebe, FTC (Electrical Eng.) (DIT), B. Eng (DIT)

F. Joseph, B.Sc. Eng. (UDSM)

N. S. Nassoro, Dip Electrical Eng. (MUST), B. Eng Electrical Eng. (DIT)

M. John, B. Eng (SJUIT)**Technician**

Z. Mashalu, FTC Electrical Eng. (MTC)

*H. Manga, Diploma Biomedical Equipment Eng. (DIT)

*On study Leave

**On contract

6.4. DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

The Department offers Ordinary Diploma and Bachelor of Engineering (NTA level 4-8) programmes in Electronics and Telecommunication Engineering and Ordinary diploma in communication system technology (NTA level 4-6). It has adequate resources to run its programmes, which include well-equipped laboratories and classrooms, 24 teaching staff and 3 technical support staff members.

6.4.1 Programmes offered by Electronics Telecom Eng. Department

(a) BASIC TECHNICIAN CERTIFICATE IN ELECTRONICS AND TELECOMMUNICATION ENGINEERING (NTA LEVEL 4)

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
CSET 04103	Computer Basics, Word Processing and Spreadsheet	12
GST 04102	Basic Technical Communication skills	2
GST 04101	Algebra	5
GST 04103	Entrepreneurship Concepts and Context	3
SLTP 04101	Statics and Dynamics	3
EET 04102	Principles of DC Networks	12
MET 04101	Basic Technical Drawing	9
MET 04104	Workshop Technology	9
CORE MODULES		
ETT 04101	Basic Electronics	9
ETT 04102	Measurements	6
ETT 04103	Electronic Drawing	6
Total		**76**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
SLTP 04202	Gravitation and Simple Harmonic Motion	3
EET 04202	Principles of AC Networks	9
Cset 04207	Database fundamentals	12
CORE MODULES		
ETT 04204	Electronic Circuits	9

ETT 04205	Principles of Digital Electronics	6
ETT 04201	Telecommunication Principles	6
ETT 04202	Basic Networking Principles	6
Total		**61**

Total Credits at NTA 4: 137 Minimum credits required at NTA 4: 120

(b) TECHNICIAN CERTIFICATE IN ELECTRONICS AND TELECOMMUNICATION ENGINEERING- NTA LEVEL 5:

Semester I

Code	Module Title	Credits
FUNDAMENTALS MODULES		
GST 05101	Fundamental Rule of counting, matrices and Differentiation	**5**
GST 05102	Business Communication	**2**
SLTP 05101	Strength of Materials and Rotational Dynamics	**3**
GST 05103	Business Start Up and Management	**3**
CSET 05101	Presentation and Internet	**2**
CORE MODULES		
ETT 05101	Electromagnetics	**6**
ETT 05102	Instrumentation	**9**
ETT 05103	Analogue Electronics	**6**
ETT 05104	Digital Electronics	**6**
ETT 05111	Practical Electronic Circuits and IT Applications	**9**
ETT 05105	Industrial Practical Training	**10**
Total		**61**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentations	2
GST 05206	Business Financial, Management and Accounting	3
GST 05207	Research Methods for Technicians	3
SLTP 05202	Fluid Mechanics	3
CORE MODULES		
ETT 05205	Television Technology	6
ETT 05206	Telecommunication	6
ETT 05207	Data Communication	6
ETT 05208	Principles of Signal Modulation and Demodulation	6
ETT 05209	Signal Amplifiers	6
ETT 05212	Analogue and Digital Communication Laboratory	9
ETT 05213	Electronic Systems CAD.	9
Total		**64**

Total Credits at NTA 5125 (Minimum credits required at NTA 5: 120)

(c) DIPLOMA IN ELECTRONICS AND TELECOMMUNICAITON ENGINEERING – NTA LEVEL 6

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06102	Engineering Study Skills	2
GST 06101	Conics and Differential Equation	5
GST 06103	Formalization, Internalization and E-Business	3
CSET 06101	Basic Computer Programming	6
CORE MODULES		
ETT 06101	Power Electronics	6
ETT 06102	Measurements and Instrumentation	9
ETT 06103	Radio Transmission Systems	6
ETT 06104	Electronic Design	9
ETT 06105	Project-Data Collection	10
ETT 06106	Industrial Practical Training	10
Total		**66**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06204	Complex Number, Numerical Methods and Series	**5**
GST 06205	Technical Writing	**2**
GST 06206	Business Planning	**3**
CSET 06208	Computer Programming and Data Structure	**2**
CORE MODULES		
ETT 06206	Practical Telecommunication and System Networks	**9**
ETT 06207	Television and Video Technology	**9**
ETT 06208	Communication Systems	**9**
ETT 06209	Radar and Navigation Aids	**9**
ETT 06210	Project-Data Analysis	**10**
ETT 06211	Telephone System s	**6**
ETT 06212	System Control and Automation Laboratory	**9**
CSET06201	Website Design and Hosting	**9**
Total		**82**

Total Credits at NTA 6:148 (Minimum credits required at NTA 6:120)

(d) BASIC TECHNICIAN CERTIFICATE IN COMMUNICATION SYSTEM TECHNOLOGY (CST) LEVEL 4

Semester: I

Module Code	Module Title	Credits
FUNDAMENTALS MODULES		

CSET:04103	Computer Basics, Word Processing & Spread Sheet	12
GST 04102	Basic Technical Communication Skills	2
GST 04101	Algebra	5
GST 04103	Entrepreneurship Concepts and Context	3
SLTP 04101	Statics and Dynamics	3
EET 04102	Principles 0f DC Networks	12
MET 04101	Basics of Technical Drawing	9
MET 04104	Workshop Technology	9
CORE MODULES		
ETT 04101	Basic Electronics	9
ETT 04102	Measurements	6
ETT 04103	Electronic Drawing	6
TOTAL		**76**

Semester II

Module Code	Module Title	Credits
FUNDAMENTALS MODULES		
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
SLTP 04202	Gravitation and Simple Harmonic Motion	3
EET 04202	Principles of AC Networks	9
CSET 04207	Database fundamentals	12
CORE MODULES		
ETT 04204	Electronic Circuits	9
ETT 04205	Principles of Digital Electronics	6
ETT 04201	Telecommunication Principles	6
ETT 04202	Networking Principles	6
TOTAL		**61**

Total credits at NTA 4: 137 (Minimum credits required at NTA 4: 120)

(e) TECHNICIAN CERTIFICATE IN COMMUNICATION SYSTEM TECHNOLOGY (CST) NTA 5

Semester I

FUNDAMENTALS MODULES		
Module Code	**Module Title**	**Credits**
GST 05101	Coordinate Geometry, Matrices and Differentiation	5
GST 05102	Business Communication	2
SLTP 05101	Strength of Material & Rotation Dynamics	3
CSET 05101	Presentation and Internet	2
GST 05103	Business Start Up and Management	3
	Core Modules	
Code	**Module Title**	**Credits**
ETT 05102	Instrumentation	9
ETT 05103	Analogue Electronics	6
ETCT 05101	Digital Electronics & Circuit Design	9
ETCT 05102	Introduction to Wireless Communication Systems	9
ETCT 05103	Introduction to Fiber Optic Communication Systems	9
CSET 05103	Operating System	6
ETCT 05104	Industrial Practical Training	10
TOTAL		**73**

Semester II

FUNDAMENTAL MODULES		
Module Code	**Module Title**	**Credits**
GST 05204	Integration, Statistics & Probability	5
GST 05205	Communication & Technical Presentation	2
GST 05206	Business Financial, Management and Accounting	3
SLTP 05202	Fluid Mechanics	3
GST 05207	Research Methods for Technicians	3
CORE MODULES		
ETT 05213	Electronic Systems CAD	9
ETCT 05201	Introduction to Data Communication	9
ETCT 05202	Wireless Communication Systems	9
ETCT 05203	Fiber Optic Communication Systems	9
TOTAL		**52**

Total credits at NTA 5:137 (Minimum credits required at NTA 5:120)

(f) DIPLOMA PROGRAMME IN COMMUNICATION SYSTEM TECHNOLOGY (CST) NTA 6

Semester I

Module Code	Module Title	Credits
FUNDAMENTALS MODULES		
GST 06101	Conics and Differentiation	5
GST 06102	Engineering Study Skills	2
SLTP 06101	Electromagnetism	3
GST 06103	Formalization, Internalization and E-Business	3
CSET 06101	Basic Computer Programming	2
CORE MODULES		
ETT 06101	Power Electronics	6
ETCT 06101	Bandwidth Management	6
ETCT 06102	Satellite Communication	6
ETCT 06103	Wireless Network	9
ETCT 06104	Optic Fiber Network	9
ETCT 06105	Network Maintenance & Troubleshooting	6
ETCT 06107	Project – Data Collection	10
ETCT 06106	Industrial Practical Training	10
TOTAL		75

Semester II

Module Code	Module Title	Credits
FUNDAMENTALS MODULES		
GST 06204	Complex Number, Numerical Methods and Series	5
SLTP 06202	Heat and Thermodynamics	2
GST 06205	Technical Writing	2
GST 06206	Business Planning	3
CSET 06208	Computer Programming and Data Structure	2
CORE MODULES		
ETCT 06201	Communication Systems	6

ETCT 06202	VSAT Network	9
ETCT 06203	Network Security and Management	9
ETCT 06204	Digital cellular Network	6
ETCT 06205	Project – Data Analysis	10
CSET 06201	Website Design and Hosting	5
TOTAL		**59**

Total credits at NTA 6: 134 (Minimum credits required at NTA 6: 120)

(g). GENERAL COURSE PROGRAMME

Semester I

Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06107	Algebra and Application of Integrals	4
CSET04103	Computer Basics, Word Processing and Spreadsheet	12
CORE MODULES		
MET 04101	Basic Technical Drawing	9
MET 04104	Workshop Technology	9
ETT 05104	Digital Electronics	6
ETT 05103	Analogue Electronics	6
ETT 06102	Measurements and Instrumentation	9
EET 04102	Basic principles of DC Networks	9
Total		64

Semester II

Code	Module Title	Credits
FUNDAMENTAL MODULES		
ETT 05213	Electronic Systems CAD	9
CSET 04207	Database fundamentals	12
CORE MODULES		
ETT 04201	Telecommunication principles	6
ETT 05209	Signal Amplifiers	6
ETT 06211	Telephone Systems	6

ETT 06207	Television and Video Technology	9
ETT 06208	Communication Systems	9
ETT 06209	Radar and Navigation Aids	9
ETT 06213	Industrial Practical Training	10
Total		**67**

Total Credits at GC: 140 (Minimum required 120)

(h). HIGHER NATIONAL DIPLOMA IN ELECTRONICS AND TELECOMMUNICATION –NTA LEVEL 7

Semester I

Module Code	Module Title	Credits
FUNDAMENTALS MODULES		
GSU 07101	Calculus	6
GSU 07105	Computing Using Mathematical Software	6
GSU 07106	Technical Communication Skills	6
CSEU 07101	Object Oriented Programming	9
CORE MODULE		
ETU 07101	Analogue Electronics	6
ETU 07102	Micro Electronics	6
ETU 07103	Electronic Devices	6
ETU 07104	Instrumentation and Measurements	6
ETU 07105	Principles of Modulation and Demodulation	6
EEU 07105	Fundamentals of AC Circuit Analysis	6
EEU 07109	Principles of Electrical Machines	6
	Total	69

Semester II

Code	Module Title	Credits
FUNDAMENTALS MODULES		
GSU 07202	Advanced Calculus	6
CSEU 07201	Data Structure and Programming	9
MEU 07212	Industrial Management	6
CORE MODULE		
ETU 07206	Digital Electronics	6

ETU 07207	Electronic Circuits	6
ETU 07208	Signal Processing	6
ETU 07209	Analogue Communication Laboratory	6
ETU 07210	Linear IC Applications Laboratory	6
EEU 07206	Control Engineering (Analogue Analysis)	6
	TOTAL	**57**

SEM III

FUNDAMENTAL MODULES		
GSU 07303	Differential Equations and Complex Variables	6
MEU 07316	Engineering Service Drawing	6
CSEU 07302	Microprocessor	9
MEU 07322	Finance and Human Resource Management	6
CORE MODULES		
ETU 07311	Electronic Design and Fabrication	6
ETU 07312	Signal Transmission Analysis	6
ETU 07313	Transmission Lines	6
ETU 07314	Digital Communication Laboratory	6
ETU 07315	Digital IC Applications	6
ETU 07316	Electronic Computer Aided Design	6
EEU 07301	Engineering Electromagnetics	6
ETU 07317	Industrial Practical Training	12
Total		**81**

Semester IV

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GSU 07404	Probability and Statistics	6
CSEU 07203	Computer System Engineering	9
MEU 07428	Engineering Operational Management	6
GSU 07407	Research Methods	3
CORE MODULES		
ETU 07417	Broadcasting Systems	6
ETU 07418	Wave Propagation and Antennas	6
ETU 07419	Antenna Design and Measurements Laboratory	6
ETU 07420	Switching Systems	6
ETU 07421	Micro Processor Applications	6
ETU 07422	Practical Signal Processing	6
CSEU 07403	Industrial Automation	9
Total		**69**

Total Credit at NTA 7: 276 (Minimum credits required at NTA 7: 240)

(i). BACHELOR IN ELECTRONICS AND TELECOMMUNICATION ENGINEERING-NTA LEVEL 8

Semester I

Module Code	Module Title	Credits
CORE MODULES		
ETU 08101	Radio Communication Systems	6
ETU 08102	Digital Networks	6
ETU 08103	Radar Systems	6
ETU 08104	Data Communications	6
ETU 08105	Television Engineering	6
ETU 08115	Industrial Practical Training	12
ETU 08106	Project Data Collection	18
MEU 08106	Law for Engineers	6
Total		**66**
ELECTIVE MODULES		
CSEU 08103	Internet Technologies	9
CSEU 08105	Robotics and Intelligent Systems	9
CSEU 08102	Expert System and Interactive Multimedia	9
ETU 08107	Multimedia Communications	6
ETU 08108	Introduction to VLSI	6
Total		**39**

Semester II

Module Code	Module Title	Credits
CORE MODULES		
ETU 08209	Satellite Communication	6
ETU 08210	Fibre Optic Communications	6
ETU 08211	Navigation and Surveying Aids	6
ETU 08212	Telecommunication Standards	6
ETU 08213	Cellular and Mobile communications	6
ETU 08214	Project	18
GSU 08201	Entrepreneurship for Engineers	3
	TOTAL	51
ELECTIVE MODULES		
ETU 08216	Advanced VLSI	6
CSEU 08202	Computer Networks and Telegraphic Engineering	9
CSEU 08204	Industrial Robotics	9
CSEU 07402	Multimedia Application Production	11
CSEU 07403	Industrial Automation	10
Total		**45**

Total Credits at NTA 8: 201 (Minimum credits required at NTA 8: 120)

6.4.2 List of Academic Staff in the Department of Electronics and Telecommunications Engineering

Lecturer and Head of Department

G. Rugumira, FTC Eng (DTC), ADE (DIT), MSc (China), PhD (China)

Senior Lecturer

K.A. Greyson, FTC Eng (DTC), ADE Eng (DIT), PGD (Temple - USA), MSc Telecom Eng. (UDSM) ,PhD (Surenaree, Thailand) IEEE Member

Lecturers

M.D. Kabadi, FTC Eng (DTC) ADE Eng (DTC), BSc (Hons) (Pretoria), MSc. (Electronics) (Pretoria)

A. Manyele, Dip.TV & VCR tech. (Canada), BSc. Applied Physics (UDSM), MSc. (Seismology) (Norway), PhD (UDSM)

J.A. Msumba, FTC Eng (DTC), ADE (DIT) BSc. (Hons)), MSc. (Electronics) (Pretoria, RPS), Grad. IET, PhD (Pretoria, RPS).

P.E. Pesha, BSc. (Electronic Science & Comm. ((UDSM), MSc. Eng Electronics (Stellenbosch, RSA) PhD Eng. (Cape Town, RSA,) IEEE Member

P. Fahamuel, ADE (DIT), MSc (China), PhD, (UK)

J.W. Matiko, FTC Eng (DIT), Beng (DIT), MSc. Lund (Sweden), PhD, (UK)

Assistant Lecturers

**M. M. Mburuma, FTC Eng (DTC), ADE Eng (DTC), (PGD) (Dar), MSc. Eng (UDSM)

N.G. Nzowa, FTC Eng (DTC), MSc. Eng (USSR)

Mbano, ADE (DTC), PGD (UK) (PGD) (UDSM), MSc. Eng. (UDSM)

J. Ally, BSc (Electronic Science & Comm. (UDSM), MSc Telecom Eng. (China)

*P. Haule, FTC (DTC), Beng (DIT), MSc. Comm. (Warwick, UK).

R. Lihakanga, FTC (DIT), Beng (DIT), MSc (Glamorgan, UK) , Grad Eng (T) Grad IET

A. O. Mfinanga, FTC Eng (DTC), ADE Eng (DIT), PGD (UDSM), MSc(UDSM)

A. J. Mohamed, FTC (TCA), B. Eng (DIT), MSc. (UDSM)

*M. E. Mkiramweni, BSc (China), MSc (China).

Tutorial Assistants

*****J. Hossea, BEng Electronics & Telecom. (ST. Joseph, Tanzania)

*I. Kamanga, BSc. Telecom (UDSM)

*B. Elphace, BEng Electronics & Telecom. (DIT)

*N. Ignasi, BEng Electronics & Telecom. (DIT)

F. Lello, BEng Electronic & Telecom. (DIT) Grad Eng. (T)

Principal Instructor II

*J. Bakunda, BSc Telecom UDSM.

E. Kajange, BEng Electronics & Telecom (DIT)

*R. Selemani, BSc. Telecom (UDSM)

Laboratory Technicians II

M.D Shirima, OD ETE (DIT)

N. Isaack, OD ETE (DIT)

* On study leave

** contract

6.5. DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical Engineering is the prime mover of any Nation Development. Nothing can be manufactured without the involvement of Mechanical Engineering. Due to fast increase of manufacturing, mining and gas) industries, the well qualified Technicians and Engineers are highly needed. These personnel can be obtained from Dar es Salaam Institute of Technology at the Department of Mechanical Engineering.

The Department offers Ordinary Diploma and Bachelor of Engineering (NTA level 4-8) in Mechanical Engineering. The Department has adequate physical resources to include classrooms, laboratories and workshops. In addition, the Department has 29 teaching staff and technical supporting personnel consisting of 11 members.

6.5.1 Programmes offered by Mechanical Eng. Department

(a). BASIC-TECHNICIAN CERTIFICATE IN MECHANICAL ENGINEERING-NTA LEVEL 4

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 04101	Algebra	5
SLTP04101	Statics & Dynamics	3
GST 04102	Basic Technical Communication skills	2
GST 04103	Entrepreneurship Concept & Context	3
CSET04101	Computer Basics ,Word Processing and Spread sheet	2
CORE MODULES		
MET 04101	Basic of Technical Drawing	9
MET 04102	Statics	6
MET 04103	Gas Welding Processes	9
MET 04104	Workshop Technology	9
MET 04105	Automotive Petrol/Gas Engine	6
EET 04102	Principles of DC Networks	12
Total		**66**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 04204	Trigonometry & Vectors	5
SLTP04202	Gravitation & Simple harmonic motion	3
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
CSET04204	Spread Sheet and Database	2
CORE MODULES		
MET 04206	Fundamentals of Engineering Drawing	9
MET 04207	Dynamics	9
MET 04208	Arc Welding Processes	9
MET 04209	Metal Cutting Machine Tools	9
MET 04210	Automotive Diesel Engine	6
EET 04202	Principles of AC Networks	9
Total		**66**

Total Credits at NTA 4: 132 (Minimum credits required at NTA 4: 120)

(b). TECHNICIAN CERTIFICATE IN MECHANICAL ENGINEERING NTA LEVEL 5

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rules of Counting, Matrices and Differentiation.	5
GST 05102	Business Communication	2
GST 05103	Business Start up and Management	3
CSET05101	Presentation and Internet	2
CORE MODULES		
MET 05101	Engineering Drawing	9
MET 05102	Basic Machine Element	6
MET 05103	Engineering Measurements & Instrumentation	6
MET 05104	Materials Technology	9
MET 05105	Strength of Materials	6
MET 05106	Thermodynamics	6
MET 05107	Maintenance and Safety	6
MET 05108	Automotive transmission and suspension	6
EET 05101	Principles of D.C. Machines	12
MET 05109	Industrial Practical Training	10
Total		**88**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05207	Research Methods for Technicians	3
GST 05205	Communication & Technical Presentations	2
GST 05206	Business Financial Management and Accounting	3
CORE MODULES		
MET 05209	Machining Process	9
MET 05210	Machine Elements Analysis	9
MET 05211	Fluid Mechanics	6
MET 05212	Metal Forming	9
MET 05213	Basic CAD	9
MET 05214	Automotive Electricity and Electronics	9
EET 05201	Principles of A. C. Machines	12
Total		**76**

Total Credits at NTA 5: _164 Minimum credits required at NTA 5: 120

(c). NTA LEVEL 6 DIPLOMA IN MECHANICAL ENGINEERING

Semester I:

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06101	Conics and Differential Equations	4
SLTP06101	Electromagnetism	2
GST 06102	Engineering Study skills	2
GST 06103	Formalization, Internationalisation & E. Business	2
CSET06101	Basics of computer programming	2
CORE MODULES		
MET 06101	Production Technology	9
MET 06102	Refrigeration Machinery	9
MET 06103	Farm Machinery & Power	9
MET 06104	Industrial Hydraulics and Pneumatics	9
MET 06105	Basics of Automation	6
MET 06106	Project Data Search	10
MET 06107	Industrial Practical Training	10
Total		**74**

Semester II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 06204	Complex numbers, Numerical methods and series	4

GST 06205	Technical Writing	2
GST 06206	Business Planning	2
CSET06201	Computer Programming and Data Structure	2
CORE MODULES		
MET 06208	Industrial Control Systems	9
MET 06209	Foundry Technology	12
MET 06210	Industrial Refrigeration and A/C	9
MET 06211	Environmental Engineering	6
MET 06212	Project Data Analysis and conclusion	12
Total		**58**

Total Credits at NTA 6: 133 Minimum credits required at NTA 6: 120

(d). GENERAL COURSE PROGRAMME IN MECHANICAL ENGINEERING

Semester I

Module Code	Module Title	Credits
GST G6107	Algebra and Application of Integrals	4
CSET G 4101	Computer Basics & Word Processing	2
MET G 4101	Basics of Technical Drawing	9
MET G4102	Static	6
MET G4103	Gas Welding Processes	9
MET G4104	Workshop Technology	9
MET G4105	Automotive Petrol/Gas Engine	6
MET G4207	Dynamics	6
MET G5103	Engineering Measurements and Instrumentation	6
MET G5307	Maintenance and Safety	6
Total		**63**

Semester 2

Module Code	Module Title	Credits
MET G5101	Engineering Drawing	9
MET G5213	Basic CAD	9
MET G5104	Materials Technology	9
MET 06209	Metal Cutting Machine Tools	9
MET 06105	Strength of Materials	6
MET G5108	Automotive Transmission and Suspension System	6
MET G5102	Basic Machine Element	6
MET G5209	Machining Processes	9
MET G5106	Thermodynamics	6
MET G4208	Arc Welding Processes	9
MET G4211	Industrial Training Practical	10
Total		**88**

Total Credit at GCP: 151 (Minimum credits required at GCP:120)

(e). HIGHER DIPLOMA IN MECHANICAL ENGINEERING – NTA LEVEL 7

Semester I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GSU 07105	Computing Using Mathematical Software	6
GSU 07101	Calculus	6
GSU 07106	Technical Communication Skills	6
EEU 07105	Fundamental of AC circuit Analysis	6
ETU 07101	Analogue Electronics	6
EEU 07109	Principles of Electrical Machines	6
CORE MODULES		
MEU 07101	Computer Aided Drafting	9
MEU 07102	Machine Elements	6
MEU 07103	Law of Engineering Thermodynamics	6
MEU 07104	Systems Reliability and Plant Maintenance	6
MEU 07105	Introduction to Fluid Mechanics	6
MEU 07106	Manufacturing Processes	9
Total		**78**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07202	Advanced Calculus	6
CSEU07201	Data Structure and Computer Programming	9
ETU 07206	Digital Electronics	6
CORE MODULES		
MEU 07207	Strength of Materials	6
MEU 07208	Machine Elements Design	6
MEU 07209	Mechanics of Machines	6
MEU 07210	Engineering Thermodynamics Combustion	6
MEU 07211	Materials Technology	6
MEU 07212	Industrial Management	6
MEU 07213	Fluid Dynamic	6
MEU 07214	Metal Cutting Processes	6
Total		**69**

Semester III

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07303	Differential Equations and Complex Variables	6
CSEU07101	Object Oriented Programming	9
EEU 07309	DC Machines	9
CORE MODULES		
MEU 07315	Industrial Practical Training	12
MEU 07316	Engineering Service Drawing	6
MEU 07317	Material Handling Design	6
MEU 07318	Computer Aided Drafting Application	9
MEU 07319	Solid Mechanics	6
MEU 07320	Machine Dynamics	6
MEU 07321	Engineering Vibrations	6
MEU 07322	Finance and Human Resources Management	6
MEU 07323	Industrial Energy Management	6
MEU 07324	Metal Casting and Forming	6
ELECTIVE MODULES		
EEU 07206	Control Engineering Analogue Analysis	6
CSEU 7309	Microprocessor	9
	Total	**108**

Semester IV

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07404	Probability and Statistics	6
EEU 07409	AC Machines	6
GSU 07407	Research Methods for Engineers	3
CORE MODULES		
MEU 07425	Industrial Design Engineering	6
MEU 07426	Dynamics of Mechanical Structure	6
MEU 07427	Fluid Power and Control	6
MEU 07428	Engineering Operations Management	6
MEU 07429	Computer Aided Engineering (CAE)	6
MEU 07430	Heat Transfer	6
MEU 07431	Internal Combustion Engines	6
MEU 07432	Automotive Engineering	6
MEU 07433	Principles of Engineering Design	6
ELECTIVE MODULES		
EEU 07306*	Control Engineering Analogue Design	6
CSEU 07403*	Industrial Automation	9
Total		**84**

Total Credits at NTA7 : 309 Minimum credits required at NTA 7: 240

(f). BACHELOR OF MECHANICAL ENGINEERING – NTA LEVEL 8

Semester I

Module Code	Module Title	Credit
MEU 08101	System and Control engineering	6
MEU 08102	Computer Aided Design (CAD)	9
MEU 08103	Production Engineering	6
MEU 08104	Power Plant	6
MEU 08105	Refrigeration and Air Conditioning	6
MEU 08106	Laws for Engineers	6
MEU 08107	Project Data collection	18
MEU 08108	Industrial Practical Training	12
Total		**69**
ELECTIVE MODULES		
EEU 08107	Power Electronics	6
CSEU07403	Industrial Automation	9
Total		**84**

Semester II:

Module Code	Module Title	Credit
MEU 08208	Engine Technology and Design	6
MEU 08209	Renewable Energy Technologies	6
MEU 08210	Computer Aided Manufacturing (CAM)	6
MEU 08211	Foundry Technology	6
MEU 08212	Quality Assurance and Control	6
MEU 08213	Automation and Robotics	6
GSU 08201	Entrepreneurship for Engineers	3
MEU 08215	Project	18
Total		**57**

Total Credits at NTA 8: 141 (Minimum credits required at NTA 8: 120)

6.5.2 List of Academic Staff in the Department of Mechanical Engineering

Lecturer and Head of Department

Eng. Dr. F. Sanga, BSc. Mechanical Enquiring (UDSM), MSc. Engineering UDSN Engineering Innovation (PhD) SUAMechanical, P Reg. Eng. (T), Corp MIET

Associate Professors

Eng. Prof. Christian W. M. Nyahumwa, Ph.D Metallurgy & Materials (U.K), MSc. Mech. Eng. (Canada), BSc. Mech. Eng. (UDSM), Reg. Eng (T), Member (IET)

Senior Lecturers

C.T. Mgonja, FTC Eng. (TCA), MSc. Eng., PhD Welding Techn (Russia)

F.E. Utou, FTC Eng. (TCA), MSc. Eng. (USSR), PhD. Mech. Eng. (RSA)

Eng. J.N. Mkilania, MSc. Eng (Bulgaria), Reg. Eng (T), MIET, PhD, Eng. Mgt (UDSM)

Lecturers

J.M. Malifedha, FTC. Eng (TCA), MSc. Eng. (USSR) Phd, Mechatronics (China)

C.E. Kilele, Dip. Ed (Mkwawa), MSc Eng. (USSR), MSc. Mgt (FRG) PhD, Eng. Mgt (UDSM)

Assistant Lecturers

M.Y. Kiluswa, BSc. Eng. (UDSM) MSc. Eng. (China)

R.S. Nzumbi, FTC (DTC), MSc. Eng (USSR)

*A. Esebi, BSc. Eng (UDSM), MSc. Prod. Eng. (RSA)

E.A. Kinyawa, BSc. Mech. Eng, MSc. Eng (FRG, Reg. Eng. (T)

*F. Lujaji BSc. Mech. Eng. (UDSM) Msc. Eng. (RSA)

D. Mbunga, FTC (TCA), MSc Eng (FRG)

A. Kisioki, FTC (TCA), Beng, (DIT), MSc Renewable Energy (UDSM)

E.L. Munuo, Cert. Mechatronics)(Japan), FTC Eng (DTC), ADE (DIT). MEng. Maint. Mngt. (DIT)

K assian, FTC (MTC) Beng (DIT), MEng. Maint. Mngt. (DIT)

Tutorial Assistant

D. Straton, FTC(DIT) Beng Mech. (DIT)

S. Loibangut, FTC (ATC) Beng Mech.

G.G. Mabala, Beng (MUST)

Chief Instructors I

*R.B. Nankokonumbi, FTC Eng, (DTC), ADE Eng. (DTC), PGD Eng (UDSM), MSc. Prod. Eng. (UDSM).

Y.J. Msigala, FTC DTE (DTC), ADE (DTC), PGD Eng. (UDSM), MSc. Prod. Eng. (UDSM)

P.R. Mubamba, BSc. Eng. MEED (UDSM)

Principal Instructors I

**K. Namweram, FTC Eng (DTC), DTE (India), ADE (DTC), PGD Eng (UDSM)

**L. S. A. Mgungo, BSc. Eng (UDSM)

Senior Instructor I

**N.R. Mkude, Cert (Weld) (UK), Cert. Weld (Japan), Adv. Cert. Weld (FRG), DTE (FRG)

Instructor II

**A. H. Katani, BSc Eng. (UDSM)

H. Rashid, FTC (MTC) BEng (DIT)

R. M. Nshatsi, BSc. Eng (UDSM)

Principal Technician II

K.M. Salira, FTC Eng. (DTC)

Senior Technician II

**J. G. Nhindilo , FTC Eng (DTC)

Technician I

W.C. Mkami, FTC Eng (DTC)

O. Mustara, OD (NIT) Automobile Engineering

M.H. Werankira, OD (DIT Mech. Engineering.

Principal Artisan

B. Bwire, Trade Test Grade I (NVTC)

A.R. Gurti, Trade test Grade II (NVTC)

Artisan I

N.N. Msamwela, Cert Trade Test Grade I (NVTC)

H.R. Abdallah, Trade Test Grade II

**L. Namkoloma, Trade Test II (El. Installation)(NVTC), Trade Test I (Refr & Air Cond) (VETA)

P.A. Luhanda VETA Level III (Welding & Metal Fabrication (NVTA III)

* On study leave

** On contract

6.6. DEPARTMENT OF SCIENCE AND LABARATORY TECHNOLOGY

Department provides services to all academic Departments in teaching Physical Sciences. The Department has adequate classrooms and laboratory facilities. In addition, it has 32 teaching staff members who are supported by 4 technicians. The Department of Science & Laboratory Technology has four (4) programmes leading to the following qualifications;

(a) Ordinary Diploma in Science and Laboratory Technology (NTA 4-6)

(b) Ordinary Diploma in Food Science and Technology (NTA 4-6)

(c) Ordinary Diploma in Biotechnology (NTA 4-6)

(d) Bachelor of Technology in Science and Laboratory Sciences (NTA 7-8).

(a). BASIC TECHNICIAN CERTIFICATE IN SCIENCE AND LABORATORY TECHNOLOGY- NTA LEVEL 4.

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04101	Algebra	5
GST 04102	Basic Technical Communication skills	2
GST 04103	Entrepreneurship Concepts and Context	3
CSET 04101	Computer Basics and Word processing	2
CORE MODULES		
SLT 04101	Introduction to Basic Principles of Physics	6
SLT 04102	Basic Experimental Chemistry	6
SLT 04103	Maintenance of Laboratory Equipment & Apparatus	9
SLT 04104	Basic Biology instrumentation	9
SLT 04105	Solutions and Bench Reagents	6
SLT 04106	Basic Biological Principles	9
SLT 04107	Laboratory Safety	6
	TOTAL	**63**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
CSET 04204	Spreadsheet and Database	2
CORE MODULES		
SLT 04202	Qualitative Analytical Chemistry	9
SLT 04204	Basic Electronic for General Instrumentation	9
SLT 04205	Basic Biological Experiments	9
SLT 04206	Principle of Physics	6
SLT 04207	Introduction to General Chemistry	6
SLT 04208	Basic Photographic Principles	6
	TOTAL	**57**

Total credits at NTA 4: 120 (Minimum credits required at NTA 4: 120)

(B). TECHNICIAN CERTIFICATE IN SCIENCE AND LABORATORY TECHNOLOGY - NTA LEVEL 5

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rules of Counting, Matrices and Differentiation	5
GST 05101	Business Communication	2
GST 05101	Business Start up and Management	3
CORE MODULES		
SLT 05101	Analytical Measurements and Instrumentation	6
SLT 05102	Electrostatics & Current Electricity	9
SLT 05103	Inorganic chemistry Practical	6
SLT 05104	Applied Mechanics	6
SLT 05105	Plants and Animal Taxonomy	6
SLT 05106	Lab Layout and organization	9
SLT 05107	Industrial Practical Training	10
	TOTAL	**62**

Semester II

Module Code	Module Title	Credit
	FUNDAMENTAL MODULES	
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentation	2
GST 05206	Business Financial Management and Accounting	3
CSET 05205	Computer Aided design	2
	CORE MODULES	
SLT 05201	Magnetism and AC Theory	9
SLT 05202	Introduction to Physical Chemistry	9
SLT 05203	Applied Optics	6
SLT 05204	Biological Specimen Management	9
SLT 05205	Applied Photography	9
SLT 05206	Basic Environmental Management	6
GST 05207	Research Methods for Technicians	2
	TOTAL	**62**

Total credits at NTA 5: 124 (Minimum credits required at NTA 5: 120)

(c). ORDINARY DIPLOMA TECHNICIAN CERTIFICATE IN SCIENCE AND LABORATORY TECHNOLOGY (NTA LEVEL 6)

Semester 1

Module Code	Module Title	Credit
	FUNDAMENTAL MODULES	
GST 06101	Conic and Differential Equation	5
GST 06102	Engineering Study Skills	2
GST 06103	Formalization, Internationalization and E-Business	2
CSET 06101	Basic Computer Programming	2
	CORE MODULES	
SLT 06102	Advanced Experimental physics	9
SLT 06103	Modern Nuclear Physics	9
SLT 06104	Physical Chemistry	9
SLT 06105	Microbiology	9
SLT 06106	Physical Chemistry Practical	9
SLT 06107	Project Data Collection	10
SLT 06108	Industrial Practical Training	10
	TOTAL	**76**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 06204	Complex number, Numerical methods and series	4
GST 06205	Technical writing	2
GST 06206	Business Planning	2
CSET 06201	Computer programing and Data structure	2
CORE MODULES		
SLT 06201	Basic Electronics	6
SLT 06202	Applied Experimental physics	9
SLT 06204	Applied Organic Chemistry	9
SLT 06205	Project –data analysis and reporting	10
SLT 06206	Molecular biology and Genetics	9
	TOTAL	**53**
ANNUAL TOTAL CREDITS		**129**

Total credits at NTA 6: 129 (Minimum credits required at NTA 6: 120)

(d) BASIC TECHNICIAN CERTIFICATE IN FOOD SCIENCE AND TECHNOLOGY-NTA LEVEL 4.

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04101	Algebra	5
GST 04102	Basic Technical Communication skills	2
GST 04103	Entrepreneurship Concepts and Context	3
CSET 04101	Computer Basics and Word processing	2
CORE MODULES		
SLFT 04101	Food Science	9
SLT 04102	Basic Experimental Chemistry	6
SLFT 04103	Food Microbiology	12
SLFT 04104	Essential Chemistry	9
SLT 04105	Solutions and bench reagents	6
	TOTAL	**54**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04204	Trigonometry	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
CSET 04204	Spreadsheet and Database	2
CORE MODULES		

SLFT 04201	Human Nutrition	9
SLFT 04202	Food Chemistry	9
SLFT 04203	Applied Food Microbiology	9
SLFT 04204	Basic Organic Chemistry	9
SLFT 04205	Electrical and Electronic Systems	9
SLT 04202	Qualitative Analytical Chemistry	9
	TOTAL	**66**

Total credits at NTA 4: 120 (Minimum credits required at NTA 4: 120)

(e) TECHNICIAN CERTIFICATE IN FOOD SCIENCE AND TECHNOLOGY- NTA LEVEL 5

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rule of counting, Matrices and Differentiation	5
GST 05101	Business Communication	2
GST 05101	Business Start Up and Management	3
CSET 05101	Presentation and Internet	2
CORE MODULES		
SLFT 05101	Biotechnology	9
SLFT 05102	Principles of Food Engineering	9
SLFT 05103	Food Biochemistry	12
SLT 05101	Analytical Measurements and Instrumentation	6
SLT 05103	Inorganic Chemistry Practical	6
SLFT 05104	Industrial Practical Training	10
	TOTAL	**64**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentation	2
GST 05206	Business Financial Management and Accounting	3
CSET 05201	Computer Aided design	2
CORE MODULES		
SLFT 05201	Food Analysis and Instrumentation	12
SLFT 05202	Applied Food Engineering	9
SLFT 05203	Food Technology	12
SLT 05202	Introduction to Physical Chemistry	9
SLT 05206	Basic Environmental Management	6
GST 05207	Research Methods for Technicians	3
	TOTAL	63

Total credits at NTA 5: 127 (Minimum credits required at NTA 5: 120)

(f) ORDINARY DIPLOMA IN FOOD SCIENCE AND TECHNOLOGY -NTA LEVEL 6

Semester 1

Module Code	Module Title	Credit
	FUNDAMENTAL MODULES	
GST 06101	Conic and Differential Equation	4
GST 06102	Engineering Study Skills	2
GST 06103	Formalization, Internationalization and E-Business	2
CSET 06101	Basic Computer Programming	2
	CORE MODULES	
SLFT 06101	Food Processing Technology	9
SLFT 06102	Food Packaging Technology	9
SLFT 06103	Quality Control Systems	9
SLT 06106	Physical Chemistry Practical	9
SLFT 06104	Project Formulation & Data collection	10
SLFT 06105	Industrial Practical Training	10
	TOTAL	**66**

Semester II

Module Code	Module Title	Credit
	FUNDAMENTAL MODULES	
GST 06204	Complex number, Numerical methods and series	4
GST 06205	Technical writing	2
GST 06206	Business Planning	2
CSET 06201	Computer programing and Data structure	2
	CORE MODULES	
SLFT 06201	Plant and equipment layout and maintenance	9
SLFT 06202	Food business	9
SLFT 06203	Forensic Science	9
SLFT 06204	Fruit and Juice Processing Technology	9
SLFT 06206	Project Report	10
	TOTAL	**56**
	ELLECTIVE MODULES	
SLFT 06206	Dairy Technology	3
SLFT 06207	Meat Technology	3
SLFT 06208	Cereal and legume processing Technology	3
SLFT 06209	Alcohol and Non alcoholic Production Technology	3

Total credits at NTA 6: 134 (Minimum credits required at NTA 6: 120)

(g) BASIC TECHNICIAN CERTIFICATE IN BIOTECHNOLOGY - NTA LEVEL 4.

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04101	Algebra	5
GST 04102	Basic Technical Communication skills	2
GST 04103	Entrepreneurship Concepts and Context	3
CSET 04101	Computer Basics and Word processing	2
CORE MODULES		
SLBT 04101	Basic Biotechnology Principles	12
SLBT 04102	Basic Cell Biology	12
SLT 04104	Basic Biology Instrumentation	9
SLT 04105	Solutions and Bench Reagents	6
SLT 04107	Laboratory Safety	6
SLT 04103	Use and Maintenance of Laboratory Equipment & Apparatus	9
	TOTAL	**66**

Semester II

Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
CSET 04204	Spreadsheet and Database	2
CORE MODULES		
SLBT 04201	Microbiology	12
SLBT 04202	Applied Biotechnology Principles	12
SLFT 04204	Basic Organic Chemistry	9
SLT 04202	Qualitative Analytical Chemistry	9
	TOTAL	**54**

Total credits at NTA 4: 120 (Minimum credits required at NTA 4: 120)

(h) TECHNICIAN CERTIFICATE IN BIOTECHNOLOGY - NTA LEVEL 5

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05101	Fundamental Rule of counting, Matrices and Differentiation	5
GST 05101	Business Communication	2
GST 05101	Business Start Up and Management	3
CSET 05101	Presentation and Internet	2

CORE MODULES		
SLBT 05101	Biosafety and Bio-ethics	12
SLBT 05102	Agricultural Biotechnology	12
SLBT 05103	Biotechnology Analytical Instruments and Measurements	12
SLBT 051O7	Industrial Practical Training	10
	TOTAL	**58**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentation	2
GST 05206	Business Financial Management and Accounting	3
CSET 05205	Computer Aided design	2
CORE MODULES		
SLBT 05201	Industrial Biotechnology	9
SLBT 05202	Environmental Biotechnology	12
SLBT 05203	Biochemistry	12
SLT 05202	Introduction to Physical chemistry	9
SLT 05204	Biological Specimen Management	9
GST 05207 *	Research Methods for Technicians	3
	TOTAL	**66**

Total credits at NTA 5: 124 (Minimum credits required at NTA 5: 120)

(i) ORDINARY DIPLOMA IN BIOTECHNOLOGY -NTA LEVEL 6

Semester 1

Module Code	Module Title	Credit
	FUNDAMENTAL MODULES	
GST 06101	Conic and Differential Equation	4
GST 06102	Engineering Study Skills	2
GST 06103	Formalization, Internationalization and E-Business	2
CSET 06101	Basic Computer Programming	2
	CORE MODULES	
SLBT 06101	Tissue Culture	12
SLBT 06102	Biostatistics	9
SLBT 06103	Proteomics	9
SLBT 06104	Research Techniques	9
SLBT 06105	Project Data collection	10
SLT 06108	Industrial Practical Training II	10
	TOTAL	**69**

Semester II

Code	Module Title	Credit
	FUNDAMENTAL MODULES	
GST 06204	Complex number, Numerical methods and series	4
GST 06205	Technical writing	2
GST 06206	Business Planning	2
CSET 06201	Computer programing and Data structure	2
	CORE MODULES	
SLT 06206	Molecular Biology and Genetics	9
SLBT 06207	Biotechnology and Genomics	12
SLFT 06203	Forensic Science	12
SLBT 06209	Project Report	10
	TOTAL	**53**

Total credits at NTA 6: 122 (Minimum credits required at NTA 6: 120)

(j) HIGHER DIPLOMA OF TECHNOLOGY IN LABORATORY SCIENCES - NTA LEVEL 7

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 07101	Calculus	6
GSU 07105	Computing using in mathematics soft ware	6
GSU 07106	Technical Communication Skills	6
CORE MODULES		
SLU 07101	Principles of Physics	6
SLU 07102	Cell Biology	9
SLU 07103	Advanced Organic Spectroscopy	6
SLU 07104	Laboratory Management and Maintenance	6
SLU 07105	Chromatographic Techniques	9
ETU 07101	Analogue Electronics	6
TOTAL		**60**

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
MEU 07212	Industrial Management	6
GSU 07202	Advanced Calculus	6
CSEU 07201	Data Structure and Computer Programming	6
CORE MODULES		
SLU 07201	General Microbiology	6
SLU 07202	Advanced Organic Chemistry	6
SLU 07203	Molecular Biology	9
MEU 07213	Fluid Dynamics	9
ETU 07206	Digital Electronics	6
EEU 07206	Control Systems Engineering Analogy	6
	TOTAL	**60**
ELECTIVE MODULES		
CSEU 07101	Object Oriented Programming	**9**
MEU 07211	Material Technology	**6**
ETU 07207	Electronic Circuits	**6**
SLU 07204	Fundamental of Physics	**6**

Semester **III**

Code	Module Title	Credit
FUNDAMENTAL MODULES		
MEU 07322	Finance and Human Resource Management	6
CSEU 07301	Data base Systems	9
GSU 07303	Differential Equations and Complex variables	6
CORE MODULES		
SLU 07301	Advanced Physical Chemistry	6
SLU 07303	Applied Organic Chemistry	6
SLU 07304	Advanced Laboratory Stores Management	6
SLU 07305	Computational Physics and Electronics	6
SLU 07306	Environmental Impact and Risk Assessment	3
SLU 07307	Electronic Polymers and Polymer based magnets	6
SLU 07308	Industrial Practical Training	12
	TOTAL	**66**

Semester IV

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
MEU 07428	Engineering Operation's Management	6
GSU 07404	Probability and Statistics	6
GSU 07407	Research Methods	3
CORE MODULES		
SLU 07401	Applied Thermodynamics	9
SLU 07402	Industrial Chemistry	6
SLU 07403	Nuclear Chemistry	6
SLU 07404	Biochemistry	9
SLU 07405	Industrial Microbiology	9
	TOTAL	**54**
ELECTIVE MODULES		
MEU 07105	Fluid Mechanics	3
SLU 07307	Metal Technology	3
SLU 07308	Waste Water Management	3
SCEU 07403	Industrial Automation	9

Total credits at NTA 7: 267 (Minimum credits required at NTA 7: 240)

(k) BACHELOR OF TECHNOLOGY IN LABORATORY SCIENCES- NTA LEVEL 8

Semester 1

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
MEU 08106	Law for Engineers	6
CORE MODULES		
SLU 08101	Thermal and Condensed Matter Physics	6
SLU 08102	Ecology	9
SLU 08103	Instrumental Analytical Chemistry and Quality Control	9
SLU 08104	Soil and Water Testing	6
SLU 08105	Project – Data Collection	18
SLU 08106	Industrial Practical Training	12
	TOTAL	**66**
ELECTIVE MODULES		
CSEU 07302	Microprocessors	9
SLU 08108	Automation in the Laboratory	3

Semester II

Module Code	Module Title	Credit
FUNDAMENTAL MODULES		
GSU 08201	Entrepreneurship for Engineers	3
CORE MODULES		
SLU 08201	Applied Biochemistry	9
SLU 08202	Synthetic Organic Chemistry	9
SLU 08203	Environmental Pollution and Mitigations	6
SLU 08204	Applied Electromagnetism	9
SLU 08205	Project	18
	TOTAL	**54**
ELECTIVE MODULES		
SLU 08206	Lubricants Chemistry	3
SLU 08207	Explosive and Propellants	3
SLU 08208	Wave Mechanics	3
EEU 08201	**Renewable energy Technologies**	6

Total credits at NTA 8: 137 (Minimum credits required at NTA 8: 120)

LIST OF ACADEMIC STAFF IN THE DEPARTMENT OF SCIENCE AND LABORATORY TECHNOLOGY

Senior Lecturer and Head of Department

P.D. Nsimama, BSc Ed., MSc. Physics (UDSM), PhD Physics (, Bloemfontein, South Africa), Post doc. (Ilmenau, Germany)

Associate Professors

L. Henry, BSc Ed., MSc, Chem. PhD Chem (UDSM)
E. Amri, BSc. Ed., MSc. Bot. (UDSM), PhD Bot, (UDSM)

Senior Lecturers

F.A Mamboya, BSc, MSc M. Biol (UDSM), PhD Biol (Stockholm, Sweden)

Lecturers

A.G. Mmari, BSc. MSc. Physics (UDSM). MSc (Seisomology) Norway), D.Techh Chemistry, PhD Physics (Rep. South Africa)
L.N. Mkiramweni, BSc. Ed (UDSM), MSc Physics (UDSM)
U. Mtaita, BSc. Ed. Med. (Ed), (UDSM)
S.K. Samson BSc (SUA), MSc.(Spain), PhD (NM-AIST).
C.C. Kimaro, BSc. Ed. (UDSM) MEng. Environ. (Holland)

Assistant Lecturers

S.W. Momburi, BSc. Ed. (UDSM), MSc Chem (UDSM)
C.A. Malisa BSc Ed (UDSM) MBA (UDSM)
D.D Ntisy, BSc Chem., MSc Chem. (Moscow)
J. Asey, BSc. Ed. (UDSM), MSc Soil Science (SUA)
I. M. Suleiman, BSc (SUA) MSc.(MUHAS)
E. Haule , BSc (SUA) MSc.(Spain)
A. Ndabigaye, BSc- MBB (UDSM), MSc (NM-AIST)
*M. Mkangara, BSc. Ed. (Open University), MSc (NM-AIST)

Tutorial Assistant

*Z. Zuberi, BSc- MBB (UDSM)
Y. Chenyambuga, B. Sc. Ed (UDSM).
M. H. Sarwat, BSc. (SUA)
L. Juma, BSc-Biotech. (SUA)
P. Francis, BSc-Biotech. (SUA)
*S. Stephano, BSc-Biotech. (UDSM)

Instructors

F. Mwaimu, BSc Ed. (UDSM)
C. S.Tarimo BSc-Microbial. (UDSM)
H. Ngulika FTC Lab Tech. (DIT), BSc-Biotech. (SUA)
V. R. Mwesiga, BSc Ed. (UDSM)
K. Masasi, BSc Ed. (UDSM)
L. Optat, BSc Ed. (UDSM)
O. Mwakasyuka, Ordinary Dipl Lab Tech. (DIT), BMLS (MUHAS)

Laboratory Technician
G. Damas, FTC Lab Tech. (DIT)
* N. Laini, Ordinary Diploma Lab Tech. (DIT)
D.P. Chale, Ordinary Diploma Lab Tech. (Arusha Tech)

* On study leave
** On contract

6.7. DEPARTMENT OF GENERAL STUDIES

This is a service Department that provides services to all academic departments for the teaching of Mathematics, Research Methods, Communication Skills and Entrepreneurship. It has 34 teaching staff members on full time basis.

6.7.1 Modules offered by General Studies Department

(a) BASIC TECHNICIANS CERTIFICATE NTA LEVEL 4

Module Code	Module Title	Credits
	Semester I	
GST 04101	Algebra	5
GST 04102	Basic Technical Communication Skills	2
GST 04103	Entrepreneurship Concepts and Context	3
	Semester II	
GST 04204	Trigonometry and Vectors	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3

(b) TECHNICIAN CERTIFICATE NTA LEVEL 5

Module Code	Module Title	Credits
	Semester I	
GST 05101	Fundamental Rule of Counting, Matrices and Differentiation	5
GST 05102	Business Communication	2
GST 05103	Business Start Up and Management	3
	Semester II	
GST 05204	Integration, Statistics and Probability	5
GST 05205	Communication and Technical Presentations	2
GST 05206	Business Financial Management and Accounting	3
GST 05207	Research Methods for Technicians	3

(c) DIPLOMA IN ENGINEERING NTA LEVEL 6

	Module Code	Module Title	Credits
Semester 1	GST 06101	Conics and Differential Equation	4
	GST 06102	Engineering study skills	2
	GST 06103	Formalization, Internalization and E-Business	2
	GST 06107	Algebra and Application of Integrals	4
Semester II			
	GST 06204	Complex Number, Numerical methods and Series	4
	GST 06205	Technical writing	2
	GST 06206	Business planning	2

(d) HIGH DIPLOMA IN ENGINEERING NTA LEVEL 7

Module Code	Module Title	Credits
	Semester I	
GSU 07101	Calculus	6
GSU 07105	Computing using Mathematical software	6
GSU 07106	Technical Communication Skills	6
	Semester II	
GSU 07202	Advanced Calculus	6
	Semester III	
GSU 07303	Differential Equations and Complex Variables	6
	Semester IV	
GSU 07404	Probability and Statistics	6
GSU 07407	Research Methods for Engineers	3

(f) BACHELOR OF ENGINEERING NTA LEVEL 8

Semester II

Module Code	Module Title	Credit
GSU 08201	Entrepreneurship for Engineers	3

(g) MASTER OF ENGINEERING NTA LEVEL 9 SEMESTER I

Module Code	Module Title	Credit
GSMG 9101	Statistics in Maintenance Management	12

(h) MASTER OF COMPUTATIONAL SCIENCE AND ENGINEERING NTA LEVEL 9

Semester I

Module Code	Module Title	Credit
GSCG 09101	Advance Numerical Methods	12
GSCG 09102	Numerical Methods for Ordinary Differential Equations	12

Semester II

Module Code	Module Title	Credit
GSCG 09103	Numerical Methods for Partial Differential Equations	**9**
GSCG 09104	Mathematical Models Analysis and Simulation	**9**
GSCG 09105	Computational Methods in Optimization	**9**

Semester III

Module Code	Module Title	Credit
GSCG 09106	Computational Finance	**9**

6.7.2 List of Academic Staff in the Department of General Studies

Lecturer and Head of Department

E.C. Rutalebwa, BSc.Ed. (UDSM), MSc. Math (UDSM), MSc. Statistics (K.U. Leuven, Belgium), PhD Statistics (K.U. Leuven, Belgium)

Senior Lecturer

N. Mtega, BSc. Ed. (UDSM), MSc. Math.(UDSM), PhD Math. (UDSM)

Lecturer

A.R. Mtafya, BSc. Ed.(UDSM), MSc Comp Sc.(China) , PhD Comp Sc. (China)

E. Mtisi, BSc. Ed.(UDSM), MSc math (UDSM) , MS Appl. Biostatistics (Harvard), PhD Math (UDSM)

S. Mwalusepo, B.Sc (Ed) (Dar), MSc (Maths) UDSM, PhD (Maths) UDSM.

Assistant Lecturers

C. Ndimba BA Ed. (UDSM), M.A. DS (UDSM))

***R.R. Elineema, BSc. Ed.(UDSM), MSc. Operational Research (Mexico)

G. Gumbwa, BA (Ed) (Dar), M,A (Ed) (UDSM

A. Msangi, BA Ed.(UDSM),M,A Linguistics (UDSM)

*L. Gerson, BA Ed. (UDSM), MA Linguistics (UDSM)

*G. Sanga, , BSc. Ed.(UDSM), MSc (Math) (Stellenbosch, RSA)

* H. Seleman BA Ed.(UDSM), MA (Linguistics) UDSM

*A. Mnabe BA Statistics. (UDSM), MA (Statistics) UDSM

*F. Elias, BSc. Ed. (Dar), PGD Comp. Sc (UDSM), MSc (Maths) UDSM

*M. Mihayo, , BA Ed.(UDSM) MA (Linguistics) UDSM

*B. D. Rioba , BA Ed.(UDSM), MA (Linguistics) UDSM

M. Ryoba, B Sc (Ed) (UDSM), MSc. Maths (China)

*T. Ngailo Bed (Maths) (Tumaini), MSc. Maths (UDSM)

B. Malisa, BSc (Ed) (UDSM), MSc. Maths (China)

*S. K. Ndawia, Bed (Linguistics) (MMU), MA (Ed) (UDOM)

I. Mangula, BA (Ed) (SAUTI) MA (Linguistics) (UDOM)

*O.E. Mapinda, BHRM (ISW), MEED (UDSM) , MHRM (OUT)

*U. Mwinuka, BA (Finance) IRDP), MEED (Mzumbe)

R. Ngeleja, BSc Edn. (UDSM), MSc. Maths (NM-AIST)

T. Anthony. Bed (Maths) (Tumaini), MSc (Ed) (UDSM)

Tutorial Assistants

Z. Salawa BSc Ed. (UDSM)

F. Haule, Bed (Maths) (TKU)

N. Honda BSc. Edn. (UDSM)

R.R. Mungula, B.A Ecom., (MNMA)

M. Majogoro, BA. (CBE)

Principal Instructor I

R.H.A. Kajwaula, BSc. Ed. (UDSM)

Instructor II

I. R. Kapungu, Bed. Math (Tumaini)

J. Chiwina, Bed Math (Tumaini)

E.K. Justine, Bed Linguistics (UDSM)

* On study leave,

*** On administration duties

6.7.3 E-LEARNING PROGRAMME

(a) Objective of the E-Learning Programme

e-Learning programme at the Dar es Salaam Institute of Technology was established to:

- Provide flexible, innovative and high quality learning.
- Open access to Tanzania about worldwide eLearning courses.
- Encourage lifelong learning using World Wide Web.
- Designing and developing all DIT courses online.

(b) Courses and Services

To achieve these objectives of providing a wide range of services to Tanzanians and its partner organizations, the department plans to provide:

- Course Design and Development
- Virtual Campus
- Virtual Learning Space
- E-Community
- Research
- Staff Development

(c) Programme Coordinator

e-Learning Coordinator: Vacant

CHAPTER SEVEN

PROFILES OF ACADEMIC RELATED DEPARTMENTS

7.1 RESEARCH AND PUBLICATIONS AND POSTGRADUATE STUDIES DEPARTMENT

The Department of Research and Publications is established purposely in order to implement the Policy for Research and Publications. The overall objective of the DIT Research and Publications Department is to put in place a clear and comprehensive institutional framework, which is conducive for stimulating and sustaining research and publication activities and coordinate the establishment /conduction of postgraduate programmes at the Institute. Specifically the Department has been established with the following objectives.

7.1.1On Research and Publications

a) To put in place an appropriate and comprehensive framework for executing, promoting and sustaining research and publication activities at the Institute
b) To promote research, innovations, technology development and publication activities among members of the DIT.
c) To increase and effectively coordinate research and publication activities at the Institute.
d) To create mechanism for staff motivation, rewarding and development of confidence so that each member participates actively in research and publications.
e) To facilitate the development of the culture of job creation (entrepreneurship development). F) To co-operate/collaborate with other Institutions in undertaking research activities.
f) To have in place a functional mechanism for promoting research and monitoring the progress of research and publication activities at the DIT.
g) To develop research acquisition strategic plan.
h) To enhance dissemination of knowledge.
i) To establish research and business links with public and private sector.
j) To conduct workshops, conferences, etc.
k) To be custodians of research reports and disseminate these reports, where

appropriate, for academic and other use.

l) To coordinate acquisition of resources needed to conduct research.

m) To establish means to coordinate research resources and activities.

n) To establish mechanism for monitoring research funding and disbursement from different sources.

o) To develop and enhance research capability and research.

p) To develop intellectual property right policy and be custodian of patents and copyrights at the Institute

7.1.2. On Postgraduate Studies

1. Enhance the existing as well as develop new educational links with other institutions of higher education within and outside the country
2. Coordinate the establishment of postgraduate programmes in Civil Engineering, Mechanical Engineering, Electrical Engineering, Laboratory Technology, Electronics and Telecommunication Engineering, Computer Studies and such other discipline as the Institute shall implement as per strategic plan.
3. Coordinate the Teaching, Examination and Research carried out at postgraduate level.
4. Promotes implementation of Research for postgraduate students
5. Collaborate with the Quality Control Department of the institute to ensure a quality delivery of postgraduate programmes.

7.1.3 . List of staff in the Department of Research, Publications and Postgraduate Studies

Head

F. A. Mamboya, BSc. Chemistry & Mar. Biology (UDSM), MSc. M. Biol. (UDSM), PhD. Biol. (Stockholm, Sweden)

Assistant Head and Coordinator of Postgraduate Studies

R. C. Kiiza, BSc. Eng. (UDSM), MSc Eng (UDSM), PhD (KTH - Sweden)

7.2 Institute Consultancy Bureau

The Institute Consulting Bureau (ICB –DIT) was established/transformed from former RCB to administer and coordinate all Consultancy and Continuing Education including Pre-Entry Courses activities carried out by DIT.

Specifically, it was established with the following main objectives.

i. To coordinate and promote Consultancy and Continuing Education and Pre-Entry Course activities among members of the DIT
ii. To oversee the quality of Consultancy and Continuing Education and Pre-Entry Course services and related assignments undertaken by DIT
iii. To develop DIT's human capacity in Consulting Skills
iv. To coordinate and facilitate multi-disciplinary Consultancy activities being executed at the institute by staff members
v. To link DIT-Consultancy and Continuing Education and Pre-Entry Course activities with Industries, National and International Professional Association.

OBJECTIVES:

7.2.1 The objective of the Bureau is to enhance the capability of Dar es Salaam Institute of Technology in order to contribute effectively to the industrial development of Tanzania through the provision of professional engineering consulting services, expert professional services and conduct and administer continuing professional development programmes by using resources at the institute and hence generate revenue for the institute and its staff.

7.2.2 The specific objectives of the bureau shall be to:

ii. Promote and administer the implementation of consultancy policies and procedures for all commercial activities in the institute that fall under its jurisdiction.
iii. Enhance the capability of DIT to contribute effectively in the industrial development of Tanzania through the provision of consultancy, expert professional services and professional advancement (or development

engineers and technologists.

iv. Enable the institute to generate funds to subsidies grants from the government and other donors for the institute to meet its financial needs.

v. Enables the staff in DIT to supplement their income thus enhancing staff retention.

vi. Optimize the use of DIT expertise and resource to solve engineering technology and related problems.

vii. Provide means for academic and other DIT staff to gain professional experience that shall be transferred to students and thereby improve quality of outputs

viii. Make available DIT training facilities to the general public through short term and medium course for the purpose of ensuring that engineers keep abreast with the rapidly advancing technology

ix. Acquire knowledge on new development and needs in the trade and adjust curriculum accordingly

x. Provide expert technical support to existing industry operations and to facilities developments of new industries and their products.

xi. Establish and offer regular professional development programs for the advancement of local engineering personnel in the industry.

xii. Facilitate establishment and enhancement of contracts and relations between DIT staff and industries.

xiii. Provide a platform through which DIT staff can transfer their knowledge and skills to industry and

xiv. Assist DIT staff to develop competencies in soliciting for jobs and in preparing winning proposals for consultancies and services

7.2.3. List of Staff in the Institute Consultancy Bureau

Manager

J.N. Mkilania MSc.Eng (Bulgaria) PhD Eng.Mngt (UDSM)

7.2.4. Available Courses for 2016/2017

The following short-term courses have been planned for the academic year 2013/2014. However, the list is not exhaustive as other pertinent tailor made courses can be designed to suit individual groups whenever need arises.

Laboratory Technology

COURSE TITLE	COURSE CONTENTS	DURATION	TUTION FEE (TSHS)
Advance Level Secondary School Practical(s)	Practical work in Physics, Chemistry and Biology	6 Weeks 2hrs/day	30,000/=
Ordinary Level Secondary School Practical(s)	Practical work in Physics, Chemistry and Biology.	6 Weeks 2hrs/day	25,000/=
Laboratory Organization and Management.	Introduction to laboratory organization and management, Laboratory inspection, Laboratory maintenance, stores and chemical storing, Laboratory safety and first aid, preparation of chemistry and biology bench reagent, General knowledge of all equipments and apparatus.	10 weeks 2hrs/day	260,000/=
Laboratory Instrumentation and Maintenance	Instrumentation, Maintenance and repair of scientific equipments, introduction to computer – Aided experiments and Analysis	10 weeks 2hrs/day	195,000/=
Chemistry Techniques	Mole concepts and its practical application, calculations of the mole concept, Standard solution, preparation of the standard solution from standard reagent	10 weeks 2hrs/day	234,000/=

Biology Techniques	Introduction to biology practical work, preparation of biological reagent, Collection, preservatives and preservation of biological specimens, Microscopes: types, care and maintenance, Temporary and permanent preparation of handcut section of plants, examination of prepared slides under microscopes, Practical on food test, Report writing.	10 weeks 2hrs/day	195,000/=
Physics Techniques	Experimental skills, Experiment in mechanics, Experiments in properties of matter, Experiment in light, Experiment in heat, Experiment in electricity, Report writing.	10 weeks 2hrs/day	169,000/=

Mechanical Engineering

COURSE TITLE	COURSE CONTENTS	DURATION	TUTION FEE (TSHS)
Introduction to Computer Aided Drafting (AutoCAD)	Starting the program Use of Drawing tools Modification of features Preparation of layers Preparation of Technical Drawing Dimensioning, Scaling, title block and plotting	4 Weeks 2hrs/day	120,000/=
Computer Aided Design (Modeling; Solid works, Pro Engineering, etc)	History, definition, field of applications Introduction to parametric software Modeling of parts Modeling of assembly Technical drawing from a model Animation and analysis Plotting	6 Weeks 2hrs/day	200,000/=

Advanced Computer aided Design (Solid Work, Cosmo works) (For Engineers and Project Managers)	Review of parts, assembly and drawing concepts Complete design exercise -Idea, Concept, Optimisation -Analysis of developed model -Drawings	8 Weeks 2hrs/day	300,000/=
Project Management (MS Project)	Basic Introduction to Project Management Concept Defining a Project Defining a time line Resource, Assignment & Costs Tracking the work Assignment & Tutorials	8 Weeks 2hrs/day	300,000/=
Basic welding technology & Practice	Fundamental of Metallurgy, Basic Electrical principles, Manual metal arc welding	6 weeks 3hrs/day	240,000/=
Intermediate welding technology	Workshop safety, Welding Science, Metallurgy, Oxy-acetylene welding, Arc-welding Process, Arc-welding Practice, Oxy-acetylene welding practice.	9 weeks 3hrs/day	320,000/=
Modern welding	Modern welding Welding processes: Welding hazards & prevention. Welding Techniques Simple weld estimates	6 weeks 3hrs/day	200,000/=
Basic foundry technology	Tools and equipment for moulding, patterns and core. Casting techniques and finishing operations.	6 Weeks 3hrs/day	200,000/=

Industrial energy management	Data gathering and analysis, Electrical metering and tariffs, Insulation, Plant survey, Refrigeration and heat pump systems, Fuel fired equipment, Steam generation and	3 Weeks 3hrs/day	90,000/=
Advanced refrigeration and air condition	Advanced Psychometric, Central A/Conditioning system-Design, Construction and Maintenance. Duct design and construction, Cold room design and construction	6 weeks 3hrs/day	190,000/=
Intermediate refrigeration and air conditioning	Refrigeration systems, parts and construction repair of refrigerators and freezers Maintenance of refrigerators and system Psychometric Principles of operation of air conditioners Repair and service air conditioners	12 weeks 3hrs/day	280,000/=
Motor Vehicle Mechanics (General)	Engines – (Internal Combustion engine) Petrol, Transmission System (manual), Suspension System, Basic Auto-electrics (Simple)	12 weeks 3hrs/day	300,000/=
Auto-Electric	Battery Systems. Ignition system Charging System Starting, Light etc System Simple car Electronics Other accessories	6Weeks 3hrs/day	240,000/=
Electronic Fuel Injection	Basic electronics, Principles of Petrol fuel injection. Electronic fuel injection. ECU. Sensors and their function.	6 Weeks 3hrs/day	240,000/=
Diesel Engine (CIE)	Principles of operations. Injector pumps. Injector Nozzles. Governors. Phasing and calibration.	4 Weeks 3hrs/day	240,000/=

Electronics and Telecommunications Engineering

COURSE TITLE	COURSE CONTENTS	DURATION	TUTION FEE (TSHS)
Basic Electronics	Passive Electronic components:- Resistors, capacitors, inductors Active Electronic Components:- Diodes, transistors, Integrated circuits, diacs, triacs, thyristors	4 Weeks (60 hours)	250,000/=
Digital Electronics	Number systems, Logic gates and logic expressions, sequential logic circuits, logic families, Memories, Design and troubleshooting of digital circuits and systems	4 Weeks (60 hours)	200,000/=
Practical electronics	Direct and alternating current (DC and AC), Resistors(types, values and colour coding), capacitive and inductive Networks, Resistivity and conductivity, Semi-conductor diodes and their applications, Transistors and their applications, IC application, Amplifiers and oscillators, Common emitter, Field Effect transistors, logical fault finding	8 Weeks 2hrs/day	250,000/=
Television and radio repair	Basic electricity and Electronics, Devices and measuring Instruments, A.C circuit and tuned circuit, Radio waves propagation and bands, Amplifiers, Radio receiver operation principles, TV camera and picture tube operation, Principles of Audio and Video tape recording, Service equipment and application, Trouble shooting exercises in TV and Radio	12 Weeks 3hrs/day	400,000/=
Satellite Dish Design and Construction		4 Weeks (60 hours)	340,000/=
Maintenance of Electronic equipment and Instrument use	Voltmeter usage, Ammeter usage, ohmmeter usage, Oscilloscope usage, Diode testing, Transistor testing, IC testing, Amplifier trouble shooting.	10 Weeks (96 hours)	400,000/=

Communication System Design(CSD)	Integrated network design (Fibre, VSAT and WiFi Technology), Site knowledge/survey, Site implementation device and tools, Network implementation, Network maintenance, Field work.	4 Weeks (96 hours)	500,000/=
Electronic & Electrical equipment maintenance & repair	PA systems, Audio equipment, motors, ac, dc, TV systems, gymnastic equipment	4 weeks (96 hrs)	300,000/=
CCTV Camera Installation, Monitoring and Servicing	Analogy CCTV, IP CCTV and wireless CCTV installation and configuration, CCTV monitoring CCTV system repair and servicing	3 weeks 2hrs/day	350,000/=

Electrical Engineering

COURSE TITLE	COURSE CONTENTS	DURATION	TUTION FEE (TSHS)
Renewable Energy	Voltage size nomination, Load calculation, Switch gear choice, Solar module selection, Battery sizing, Installation procedures, Cost estimation, Analysis of different seasons of the year, Charge controllers, Inverters and TBS specifications for solar PV system.	3 months 3hrs/day	550,000/=
Maintenance of Electric Equipment and Industrial Instrumentation	Introduction to electrical system(AC, DC, 3Φ, 1Φ) Introduction to an electrical equipment, Introduction to an electrical maintenance, Basic electricity, AC Circuit and DC circuit, IEE Regulations, Electrical design	9 weeks 2hrs/day	300,000/=
Winding of Electrical Machine	Basic concept of winding. A.C windings. -Single phase winding -Three phase winding D.C winding.	3 months 3hrs/day	400,000/=

Electrical Installation (domestic and Industrials)	Single phase installations (various). Three phase installations (Various).	8 Weeks 3hrs/day)	400,000/=
Industrial Process Control	Control loop theory. Control modes. Process gain and dynamics. Non linear adaptive control.	3 months 3 hrs/day	320,000/=
Digital circuits and converters.	Combination and sequential logics design, Analogue to digital and Digital to analogue converters	Months 2hrs/day	350,000/=

Building and Civil Engineering

COURSES OFFERED	**DURATION**	**TUTION FEE (TSHS)**
Supervision of construction works	3weeks	450,000.00
Building construction and maintenance	3 weeks	450,000.00
Quality control – testing of engineering soils, Aggregates and bituminous materials	3 weeks	450,000.00
Quality control – testing of engineering soils, Aggregates and bituminous materials	2 weeks	450,000.00
Civil engineering computer applications part I	4 weeks	250,000.00
Surveying for civil engineering and building Technicians and engineers	3 weeks	450,000.00
Construction and maintenance of low cost highway structures	3weeks	450,000.00
Safety on highway work zones	2 weeks	300,000.00
AutoCAD for architectural design	4 weeks	350,000.00
Entrepreneuralship/business management	4weeks	200,000.00
Design of low cost water supply projects	3 weeks	450,000.00
Labour based road maintenance for earth roads	4 weeks	450,000.00
Highway Structures maintenance	3weeks	450,000.00
Fire safety in building structures	2 weeks	300,000.00
Contract administration	3 weeks	450,000.00
Site management (general)	4weeks	600,000.00
Health and safety in construction sites	4weeks	600,000.00

Maap 5 – traffic safety analysis	4weeks	600,000.00
Solid waste management	4weeks	450,000.00

Note:
1. Starting date is every 1st Monday of the Month
2. Time for course teaching and learning is 4.00 – 6.00 pm every day of the course

GENERAL STUDIES DEPARTMENT SHORT COURSES

COURSE TITLE	COURSE CONTENT	DURATION	TIME	STARTING DATE	TUITION FEE (TSHS)
Revisions on Basic Mathematics	Fractions, Decimals and percentages. Compounding, Discounting and Amuty, Applied Calculus. Matrix operations. Time value of money. Cost Revenue and Profit	6 Weeks	4:30- 6:30 pm	Every first date of the month	250,000/=
Introduction to statistics	Data collection. Statistical measure. Regression and correlations. Time series analysis Index number Probability Theory	6 weeks	6:30-8:30 pm	Every first date of the month	300,000/=
Applied statistics	Basic Review on probability Theory. Statistical Inferences. Hypothesis Testing. Correction and Regression.	6 weeks	4:30-6:30 pm	Every first date of the month	400,000/=

	Forecasting. Time series.				
Operations research	Inventory control Queing theory Simulations Linear programming Transportation and assignment Network analysis Sequence	6 weeks	4:30-6:30 pm	Every first date of the month	400,000/=
Introduction to research methods and data analysis	Introduction to research. The research process. Data analysis process. Hypothesis Testing. Technical of Data analysis. Data Interpretation**.**	8 weeks	6:30-8:30	Every first date of a month	400,000/=

For further information contact:
Institute Consultancy Bureau (ICB)
Dar es Salaam Institute of Technology, Bibi Titi Mohamed/Morogoro Rd
P.O.Box 2958, **DAR ES SALAAM,** Telephone: 022-2150902, Mobile: 0748- 546634,
Fax : 022-2152504, Email : doce@dit.ac.tz

7.3 DEPARTMENT OF INDUSTRIAL LIAISON AND CAREER GUIDANCE (ILCG)

7.3.1 The main objective of the department is to provide guidance for efficient and effective coordination of Industrial Practical Training (IPT), career counseling for the Institute's students, job placement and follow up of Institutes graduates.

To accommodate the objectives, the department has two functional sections mainly:

- IPT Coordination
- Career Counseling

The main link between the ILCG Department and other academic departments is through the Departmental IPT and Career Coordinators.

(a) IPT Coordination Section deals with:

i. Soliciting IPT placements for all students at the Institute

ii. Planning and coordinating IPT supervision

iii. Coordinating study visits for students and staff to industries and companies

iv. Coordinating study visits for students and staff from other Institutions

v. Coordinating professional lectures for students in and outside the Institute

vi. Coordinating staff professional attachments to industries and companies

vii. Coordinating employment opportunities for the Institute's graduates

(b) Career Counseling Section are:

i. identifying and providing solutions to existing potential recruitment problems for the graduates

ii. identifying, coordinating and streamlining professional requirements

against industry employer's needs and demands

iii. organizing and coordinating job placements and career guidance services

iv. organizing and managing database on DIT graduates

v. locating the whereabouts of the DIT graduates in the industry

vi. soliciting feedback information on DIT graduate's performance at their respective work stations and establishing a benchmarking system

vii. coordinating matters related to facilities in exhibitions and publicity

7.3.2Industrial Practical Training (IPT)

IPT is one of the modules included in all academic programmes at the Institute. It is therefore an essential integral part of the entire training. The main objective is to provide an opportunity to students to merge theory and practical

Industrial practical training (ipt) structure

IPT module has specific credit values realized in specified time as shown in the table below.

IPT MODULE	Qualification level	Recommended Timing of IPT	Credit	Duration
IPT I	NTA level 5 (First Semester)	End of Semester of NTA Level 4	10	10 weeks
IPT II	NTA level 6 (First Semester)	End of 2nd Semester of NTA Level 5	10	10 weeks
IPT III	NTA level 7 (Third Semester)	End of 2nd Semester of NTA Level 7	12	9 weeks
IPT IV	NTA level 8 (First Semester)	End of 4th Semester of NTA Level 7	12	9 weeks

IPT Modules are treated as courses of succeeding year for all OD and Beng Programmes.

7.3.3 List of Staff in the Department of Industrial Liaison and Career Guidance

Head of Department

John A. Msumba
FTC Eng (DTC), ADE (DIT), BSc. (Hons) Electronics (Pretoria, RSA), MSc. (Electronics) (Pretoria, RSA), PhD Electronics (UKZN- RSA), Grad. IET, Grad T. ERB.

7.4 LIBRARY SERVICES

One of the major aspirations of the DIT is to continuously expand its library services in order to foster learning skills of its students and improve professional working conditions of staff. The Institute has at present a library whose collection is primarily geared towards providing materials and documentation services to support teaching and learning activities. The collections include materials for major courses in the fields of Electrical Engineering, Civil Engineering, Mechanical Engineering, Electronics and Telecommunications Engineering, Laboratory Technology and Computer studies. Also, it offers materials for supporting subjects such as Mathematics, Communication Skills, Development Studies, Labour Law and Engineering Management. According to the statistics of the previous stocktaking the library has a total number of 3,000 documents. These include up-to-date textbooks, professional journals, theses, manuals, directories, bibliographies, reports, research papers, encyclopaedias and handbooks.

Membership: Any person attending a course or working at DIT is entitled to the use of the library services, and therefore allowed to register him/ herself as a member. The library facilities are available to all students with valid Identity Cards. However, for students, a token membership fee of five thousand shillings (10,000/=) annually is contributed.

Every student shall enjoy the services of the Institute's Library except for those students who for any good cause; have been banned from use of such services and those services shall be available to students at such hours as the management may prescribe. Any student borrowing books, periodicals, magazines or any document from the Library shall personally be responsible for their care, safety and shall return them to the issuing offices or Librarian on the specified date for their return.

Opening Hours

Monday – Friday	0900 -2000 hrs
Saturday	0900 -1300 hrs
Public Holidays and Sunday	closed

The Library management aims to automate its library information materials to create easy and quick access. In line with that, it will create access to CD – ROM titles, E-books, E-journals, Internet searching and e-mail communication within the library.

List of Staff in the Library

Lecturer and Head, Library

E. Mtisi, BSc. Ed.(UDSM), MSc math (UDSM) , MS. Appl. Biostatistics (Harvard), PhD Math (UDSM)

Library Officer

C. Komba, Cert. (SLADS BAGAMOYO), B.A in Librarianship (Tumaini Makumira University)

O. Ndimbo, Cert (SLADS Bagamoyo), B.A in Librarianship (Tumaini Makumira University)

B. Kamtawa, Cert & Dip. Librarian (SLADS Bagamoyo), B.A in Librarianship (Tumaini

Makumira University)

Senior Library Assistant I

A. Nyenze, Cert & Dip. Librarian (SLADS Bagamoyo)

A. Msofe, Cert & Dip. Librarian (SLADS Bagamoyo)

F. Membea Cert & Dip. Librarian (SLADS Bagamoyo)

7.5 INFORMATION TECHNOLOGY (IT) SERVICES DEPARTMENT

The Department engages actively with the Institute community, soliciting its current and changing requirements in support of the Vision and Strategy in order to:

- meet users' expectation and needs for high quality service in ICT, Information resources and print
- deliver those services effectively , efficiently and responsively
- develop and enhance close partnership with department and other institute so as to encourage the best working practice
- plan ahead cooperatively to keep pace with change in it providing leadership for innovation in ICT
- deploy with economy and efficiency it resource of people , money , space and equipment

7.5.1The key objectives for the IT Services Department

(a) implement strategies for improving ICT infrastructure and for support to teaching staff involve the department's staff in developing the new culture in ICT

(b) play a leading role in developing and implementing the Institute's ICT/Information Strategy

(c) exploit the opportunities for the future Learning Resource Centre to improve support for teaching, learning and research

(d) Contribute to and enhance Institute initiatives in open and distance

learning, lifelong learning, regional development and other outreach services

(e) Improve service quality to students (e.g. inter-library loans, enquiry handling, registration for ICT services etc.

(f) Improve robustness, resilience of ICT systems in the Institutes.

7.5.2. List of Staff in the ICT Services Department

Head of ICT Services

O. Mnzava, Adv Dipl. Comp Science, MSc IT and Mgt. (IFM)

Web Master

I. Jumanne, BSc. (Computer Science) (UDSM)

Instructors

M. Mwangende Cert IT (DIT) Dipl. ICT (UCC) MSc. Software Engineering (Beijing Institute of Technology China)

E. Bebwa, Adv Dipl Comp Science, (Macmaine School of Computing), MSc. Software Engineering (Beijing Institute of Technology China).

R. Nyangusi Dipl. Comp. Eng(DIT), Beng. Comp. Eng(DIT)

H. Mohamed, FTC. Comp (DIT), Adv. Dipl. Comp (China), M.Eng. Comp (China)

Technician

B. Sonzogo, FTC, Comp. Eng (DIT) M. Diplo, (Computer Eng) (UDSM), PGD (Centre for Dev. Adv. Comp.) India.

* H.M. Bakari, FTC Comp. Eng (DIT), Dip Comp (China)

E. Masawe FTC Comp. DIT, PGD (UDSM)

* R. Angotike, OD (Computer Eng), (DIT)

D. Maduhu, OD (Computer Eng) (DIT)

V. Sichirima, Cert.(Electrical), VETA

* On study leave

7.6 INDIA - TANZANIA CENTRE OF EXCELLENCY IN INFORMATION AND COMMUNICATION TECHNOLOGY (ITCoEICT)

7.6.1. Introduction

The India-Tanzania Centre of Excellence in Information and Communication Technology (ITCoEICT) was established in 2009 as a result of bilateral relation and cooperation between the United Republic of Tanzania and Government of India. The project implementing agencies on behalf of Tanzania and India are Dar Es Salaam Institute of Technology (DIT) and India Centre for Development of Advanced Computing (CDAC) respectively. The principal objective of the Center is to promote development of Information and Communication Technology in the United Republic of Tanzania. In order to realize this noble objective, the Centre engages in various professional activities in ICT including provision of video conferencing, telemedicine & e-learning facilities, High Performance Computing and conducting modular short-term proficiency courses in Information Technology.

7.6.2Vision and mission and functions of the centre

Vision:

To create a world class IT Centre for IT skills, problem solving and connecting people through cyberspace

Mission:

1. Conduct modular short-term proficiency training courses in Information Technology.
2. Provide training on the entire project life cycle i.e design, development, testing, trials debugging, customization, standardization, support services, etc.
3. To utilize the Centre and its and Communication Information centers (CICs) located in Posta offices countrywide for offering various services, such as distance learning.
4. Build capacity for, and promote the use of High Performance Computing in Tanzania.

5. To utilize the CoEICT as a Centre for Disaster Management and National Data Centre by government for making the data of national interest available to government and Public.

Functions of the Centre:

1. Develop and offer professional, tailor made ICT programs
2. Develop and offer e-learning programs and Telemedicine services
3. Attract and publicize the use of Supercomputer for leaning, research and business applications.
4. Collaborate with other institutions local or foreign to offer ICT related courses and services

7.6.3Main Pillars of the Centre

The Center is divided in three units, namely High Performance Computing section, Telemedicine & e-Learning section and IT Professional Courses section.

(a) High performance computing section

This section is equipped with a Linux (REDHAT) based supercomputing cluster code named "PARAM Serengeti". The facility includes 20 TeraBytes of raw storage and 38 TeraBytes of tape backup along with relevant backup software. Currently the facility is installed with various scientific applications in Bioinformatics, Atmospheric Science, Oceanography, Computational Fluid Dynamics, Finite Element Analysis, Seismic Analysis, Materials Modeling, and Data Visualization Tools. Other applications can be installed as needed. Current visualization tools include Grads and Ferret.

Interconnect:

8-ports PARAM III Primary interconnect
24-ports infinitband Silver-strom secondary interconnect
24-ports Nortel Gigabyte switch 1000BASE-T 1000Mbps for cluster management

Security:

1. A firewall designed to permit or deny network transmissions based upon a set of rules to protect network from unauthorized access while permitting legitimate communications to pass.
2. Authentication server set up to provide authentication services to users or other systems.

(b) Telemedicine & E-learning Section

The Dar Es Salaam Institute of Technology is participating in the National Telemedicine Pilot project by connecting seven (7) hospitals: Muhimbili National Hospital, Amana, Temeke, Mwananyamala, Tumbi, Bagamoyo and Mbeya Referral Hospital. The connectivity part is completed; plans are underway for the inauguration. The pilot is using the **Sanjeevani** telemedicine software which was provided by CDAC. The Center is providing the software, the facilities as well as expertise. Other partners include Ministry of Health; Ministry of Communication, Science and Technology; Muhimbili National Hospital; and the Universal Communication Access Fund. The purpose is to enable continuous medical education, consultation between the regional hospitals and the National Hospital.

Hospitals which are already connected include Muhimbili National Hospital, Amana, Mwananyamala, temeke, Bagamoyo, Tumbi and Mbeya referral Hospital. Services offered by the network include Tele-Consultation and Tele-Education. Plans are underway to connect MOI hospital, Mnazi mmoja hospital in Zanzibar, Bugando Hospital, KCMC, Ocean Road, Mirembe and Kibong'oto.

Live telemedicine (between the six hospitals) was demonstrated during the Smart Partnership Global Dialogue 2013 http://www.globaldialogue2013.go.tz/ that took place from 28th June to 1st July 2013 in Dar Es Salaam, Tanzania. ITCoEICT still provides technical support to the project in all hospitals. The center is in discussion to upgrade the Sanjeevani software to the web based E-Sanjeevani.

Equipments Installed:

- ECG Machines
- Microscope
- Video-Conference
- Digital cameras

7.6.4. IT PROFESSIONAL COURSES SECTION

The section is in charge of conducting modular short-term proficiency courses in Information Technology. These courses are designed to address various ICT challenges which our country faces such as low computer literacy rate among ordinary citizens and insufficient local IT workforce. Therefore, the training section offers variety of Information Technology professional certificate courses ranging from Computer Basics, Specialized Software packages to Advanced Computing. The courses target towards the Tanzania Citizens from varied background who aspire to make an intelligent use of computers or make successful career in the local IT industry.

Courses Objectives

1. To provide ICT professional skills to individuals who aspire to make successful career in ICT industry as programmers, network administrators, website developers, Graphics designers, Desk Top Publishing operators, and so on.
2. To raise level of computer literacy among employees by providing relevant ICT skills that could enhance their job performance in their day-to-day operations.
3. To provide hands-on skills in using specialized computer applications such as statistical and accounting packages in processing statistical and financial data.
4. To prepare would-be computer trainers such as school and college teachers.

Offered Courses at INDIA-TANZANIA CENTRE OF EXCELLENCE IN ICT (ITCoEICT)

No	Course Name	Duration	Fee
1	Computer Application: ▪ PC Fundamentals ▪ Ms Word ▪ M s Excel ▪ Ms Power Point ▪ Ms Publisher ▪ Internet Application	6 Weeks	250,000/=
2	Computer Maintenance & Repair	6 Weeks	300,000/=
3	Oracle Database Programming(10g)	6 Weeks	400,000/=
4	Linux Network Administration	6 Weeks	500,000/=
5	Linux Basics	4 Weeks	500,000/=
6	Advanced Linux System Administration	6 Weeks	550,000/=
7	AUTOCARD	4 Weeks	400,000/=
8	CISCO Certified Network Associates(CCNA)	8 Weeks	900,000/=

9	CISCO IT Essential	8 Weeks	650,000/=
10	Web development using PHP and HMTL	5 weeks	300,000/=
11	Video production	4 weeks	450,00/=
12	Graphic design using adobe Photoshop/illustrator	4 weeks	350,000/=
13	Motion graphics & Animation	4 weeks	450,000/=
14	3D modeling & Animation	4 weeks	450,000/=
15	ANDROID for mobile development	8 weeks	800,000/=
16	JAVA for software development	8 weeks	700,000/=
17	Web designing using PHP & MYSQL	6 weeks	350,000/=
18	Printer maintenances & Repair	6 weeks	500,000/=
19	Photocopier maintenances & Repair	8 weeks	500,000/=
20	Basic computer networking	4 weeks	400,000/=
21	Network security	8 weeks	600,000/=
22	Tally	4 weeks	400,000/=

7.6.5. TRAINING PROGRAMME IN IT FUNDIS

The center offer a training course on IT fundis as shown in the course structure below.

IT COURSE STRUCTURE

MODULES - SEMESTER I

Code	Module Title	Scheme Of Study Hrs/Wk				
		L	T	P	AS	Credit
PCITT 11	Basic Mathematics	3	1		3	10
PCITT 12	Technical English	3	1		3	10
PCITT 13	Computer Systems Maintenance and Repair	3	1	8	2	21
PCITT 14	Networking Fundamentals	3	1	8	2	21
Total hours/Week		42				

Key Note
L - Lecture hours
T - Tutorials hours
P - Practical hours
AS – Assignment hours

MODULES - SEMESTER II

Code	Module Title	Scheme Of Study Hrs/Wk				
		L	T	P	AS	Credit
PCITT 21	Engineering Science	3	1		3	10
PCITT 22	Introduction to Entrepreneurship	3	1		3	10
PCITT 23	Computer Peripheral Service and Repair	3	1	8	2	21
PCITT 24	Advanced Networking	3	1	8	2	21
Total hours/Week		42				

GRADING SYSTEM OF THE IT FUNDI TRAINING PROGRAMME

S/No	Grade	Definition	Score Range
1	**A**	Excellent	80-100
2	**B**	Good	65-79
3	**C**	Satisfactory	50-64
4	**D**	Poor	40-49
5	**F**	Failure	0-39
6	**I**	Incomplete	9-29
7	**Q**	Disqualification	0.0

Community Information Centers (CIC'S)

ITCOEICT in collaboration with Tanzania Post Corporation and Kibaha Education Center is running Community Information Centers which offer modular short-term proficiency courses in Information Technology. All courses running at ITCOEICT headquarters in Dar es Salaam are also conducted at these centers which are located in the following Post Office buildings: Bagamoyo, Zanzibar, Arusha, Mwanza, Iringa, Mbeya, Morogoro, Dodoma, and Mtwara. The tenth CIC is located in the building of Kibaha Education Centre, Kibaha.

7.6.6. RESEARCH & DEVELOPMENT SECTION

The Section of ICT professional programs is not confined to training activities only. Plans are underway to open new section that will support research and consultancy activities in the area of ICT service support. The section will also engage in software

production to meet demands of customized software packages for small-to-medium scale businesses in the local market.

7.6.7. LIST OF STAFF IN IT-COEICT

Lecturer and Acting Head of the Center
J.W. Matiko, FTC Eng (DIT), Beng (DIT), MSc. Lund (Sweden), PhD,

(Southampton, UK)

Head of Telemedicine and Training
Daudi Mboma MSc IT & Management, PG Diploma in Advanced Computing (PG-DAC), Adv Diploma in Computer Science (ADCS), (RHCSA, RHCE)

Head of HPC
Damas Makweba
Bachelor of Computer Engineering (BENG) (CCNA, HPC Applications)

Training Coordinator
William Olambo, BSc BA in Ed., MSc MA in Ed., (UDSM)

CHAPTER EIGHT

GENERAL INFORMATION

8.1 BEST STUDENTS' PRIZES AND AWARDS

In order to promote learning competitions among students, the Institute, used to award prizes to the best three students in each academic Department who have shown outstanding performance in academics for all the subjects carried out in an academic year. However, the prizes and awards to best students will now be decided by the DIT management. In addition, other prizes are awarded by different sponsors (individuals and companies) to best students in various fields from different Departments. Information regarding awards and prizes will be released to students by the DIT management before the graduation Day of each academic year.

8.4 STUDENTS' ACCOMMODATION

Currently, DIT has a limited number of rooms in its hostels to provide accommodation to all students. Students are encouraged to look for private accommodation in the city. For the limited accommodation spaces available, Institute Students Accommodation Bureau (ISAB) will use criteria stipulated in Accommodation Policy in allocation accommodation for students preferentially for those who have applied for accommodation from ISAB. Students' hostels are located within the DIT compound and Chang'ombe area.

Student who will secure accommodation in DIT hostels are required to bring with them; pillows, bed sheets, blanket and mosquito nets. Every student shall, before being granted institutes' accommodation pay a prescribed accommodation fee.

Every resident student shall observe accommodation rules and regulations. These include, but not limited to, the strict requirement for all students to vacate their rooms and hand-over their room keys to the Janitor/Warden during vacation and Industrial Practical Training periods. Residents are not allowed to sublet, use illegal drugs as well as not to cook in hostels or employ house girls/boys for cooking and laundry duties.

8.5 STUDENTS' ADMINISTRATION

Most of the students' activities at the Institute are organised by the DIT Students Organisation (DITSO) under the coordination of the Office of the Dean of Students. The Organisation is concerned with the student's academic, political, social and recreational activities. Every student becomes a member of DITSO (DIT Student Organisation) and students are advised to make their academic life meaningful by making their Organisation contribute positively towards the Institute Vision, Mission and its objectives.

8.6 STUDENTS' CATERING SERVICES

NTA Level 4-6 students are not paid meal allowances, instead, meals are provided by the Institute in a dining hall located in the campus. Menu depends on the ability of the sponsor. B.Eng students obtain their meals from a number of points providing catering services within the proximity of the Institute. The same applies to all day and private sponsored students.

8.7 MEDICAL SERVICES

The Institute has a Health Care Unit for students, staff and their families. The Unit provides outpatient services to NHIF members and on cost sharing basis to non-NHIF members and may refer to other hospitals if necessary. Students are encouraged to bring with them NHIF cards and for non members a special health insurance package for students has been introduced by the NHIF. Each non-member student should make early consultation with the Institute Students NHIF

Officer to get registration forms for students to fill. Currently, the amount to be paid by individual student is TZS 50,400/= per academic year. The amount to be paid regarding medical insurance cover is clearly stipulated in the college fees structure. Students are directed to report at the Health Care Unit each time before they embark for any referral treatment.

8.8 GENDER MANAGEMENT UNIT (GMU)

The DIT- Gender Management Unit (DIT_GMU) was established in 2000 to advocates all the gender related issues at DIT including gender equity and efficiency in education and training. GMU recognizes and addresses gender issues and problems as stipulated in *the DIT corporate strategic plan 2003/2004-2017/2018* sections 6.1.4, 6.5.6 and 6.6 under specific Goals number 4 and 5. Goal 5 emphasizes on improving Gender balance amongst staff and students.

The DIT-GMU closely works with the Management in an attempt to intensify efforts to admit more qualified female students and recruit female staff to address gender imbalance. It also works closely with the management in an attempt to ensure supportive learning environment to both male and female.

GMU provides counseling services to new students during the orientation period and whenever needed in collaboration with the Dean of Students' Office.

PROMOTING AND SUPPORTING FEMALE STUDENTS

a) Pre entry Programme

Through the GMU, DIT started Pre-entry course for students (especially female students) who have weak grades to qualify for direct admission to DIT programmes for Ordinary Diploma and Bachelor of Engineering. The aim of Pre entry course is to boost their educational grades to a level of admission requirement for the Government sponsored students, with a special focus of access to many female into the program. These efforts have shown a significant improvement on female enrolment at the Institute.

In collaboration with the Department of General Studies, GMU coordinates Pre-entry courses each year (for 10/12 weeks) for female and male students who aspire to join full time courses at DIT. Furthermore, the Unit is engaged in securing fund from various donors for female students to undergo Pre entry course and for those who successfully complete Pre-entry courses to join DIT for full time programs. The Ministry of Communication, Science and Technology every year donates fund which is used to sponsor 21 best female graduates of Pre entry into various OD programs for 3 years.

Gender sensitization programs

i. GMU Conducts sensitization campaigns to selected secondary schools in different regions to encourage female students join Science and Engineering/Technological fields.
ii. Creation of gender awareness in the DIT community through seminars and workshops as per the Action Plan or when budget allow.
iii. Incorporation of Gender modules in the Curricula for all DIT programmes (O.D and B.Eng.) through Entrepreneurship module GST 04103.
iv. In collaboration with HIV/AIDS Coordinator, Dispensary unit and Dean of Students' office, GMU makes provision of *counseling services* to students and employees. In this way, other gender issues or problems are addressed.
v. Promoting gender empowerment to Gender Task Force members so as to enable the team to mainstream gender in some DIT programs and documents. Furthermore, GTF solicit resources for running some GMU activities and other related projects for staff and students.

b) The Sponsorship for Female Students

In an attempt to ensure gender mainstreaming, GMU constantly make efforts to solicit fund from various sources to sponsor female students. GMU therefore, from time to time ensures limited sponsorship for OD female students admitted in the Institute.

8.9 RENTAL SERVICES

DIT possesses a variety of renting facilities, which are available for use at reasonable charges. Its ideal location in the city centre makes it possible for excellent use and access of these facilities for interested users.

- DIT has 19 engineering workshops and 4 science laboratories that can be used for providing both training and production services to students and outside community.
- It has 26 classrooms which can be rented during weekends and when students are on vacation or industrial training.
- The DIT library has adequate facilities to cater for meetings and/or conferences with up to 100 participants. The facility is available to the outside community for renting, when it is not in DIT use.
- An executive room with a sitting capacity of about 20 people is also available for renting. This room is furnished with soft chairs and can be ideal for small workshops, meetings and other similar forum. The strategic central location of DIT makes this offer most attractive.
- DIT hostels and the Dining Hall may be available when students are out for vacation

CHAPTER NINE

MWANZA CAMPUS
Message from the Head

Dr. Albert G. Mmari

DIT Mwanza campus continues to serve societal needs and excel in academics. In the new academic year 2017/18, I am pleased to inform you that, we have introduce a one year Leather based programme, Basic Technician Certificate in Leather Products Technology, leading to a National Technical Award (NTA Level 4). This adds up to the existing programme and courses, Ordinary Diploma in Science and Laboratory Technology, Leather Craft Tanning, Basic Shoe and Leather Goods Making, and Information and Communication Technology.

To spearhead realization of Tanzania industry economy by year 2025, DIT Mwanza campus has revolutionalised Leather Processing and Leather Products Technology trainings by adopting a teaching factory approach, whereby trainings are interactively linked to real life factory/industrial businesses. In addition to that, we continue to support the Tanzanian hides and skins derived industries to leather products development.

With these achievements and more to come, we thank all developing partners including, the Prime Minister's Office, Ministry of Labour, Youth, Employment and People with Disability, with whom we have entered a Memorandum of Understanding for Skills Development Training to One thousand youths in Leather Industry, and United

Nations Industrial Development Organization (UNIDO) for human resources capacity building to mention a few.

We are optimistic to realize our vision and mission.

"A GOOD DEED IS NEVER LOST"

Programme offered at DIT Mwanza Campus

9.1. Mwanza campus has a Teaching Tannery, Footwear and Leather Goods workshops classrooms and laboratory facilities. In addition, it has 9 academic staff members. The campus has two (2) programmes leading to the following qualifications;

(a) Ordinary Diploma in Science and Laboratory Technology (NTA Level 4-6)
This programme is the same as the one offered at Dar es Salaam campus;

(b) Basic Technician Certificate in Leather Products Technology (NTA Level 4)

BASIC TECHNICIAN CERTIFICATE (NTA LEVEL 4)

SEMESTER I

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 04101	Algebra	5
GST 04102	Basic Technical Communication skills	2
GST 04103	Entrepreneurship Concepts and Context	3
CSET 04101	Computer Basics and Word processing	2
	Sub-Total	12
CORE MODULES		
MFLT 04101	Footwear Design and Pattern Engineering	12
MFLT 04102	Leather Products Materials	09
MFLT 04103	Fundamental of Footwear Technology	12
MFLT 04104	Fundamental of Leather Goods Technology	12
	Sub-Total	45
Total		

SEMESTER II

Module Code	Module Title	Credits
FUNDAMENTAL MODULES		
GST 04204	Trigonometry	5
GST 04205	Communication Skills	2
GST 04206	Small Business Development	3
CSET04201	Spread Sheet and Database	2
	Sub Total	12

CORE MODULES		
MFLT 04201	Tools and Machine maintenance in Leather Products Technology	09
MFLT 04202	Leather products Marketing	09
MFLT 04203	Footwear Technology	12
MFLT 04204	Leather Goods Technology	12
MFLT 04205	Industrial Practical Training: IPT	10
	Sub Total	52
Total		

Minimum required credits: 120.

MAJOR CONTACT ADDRESSES

HEAD

DIT Mwanza campus,

P.O. Box 2525

Mwanza

Telephone: +255 (028) 2981164/6, Mobile phones +255 764 407023., +255 655 407023

Emails: head@mwanzacampus.dit.ac.tz and info@mwanzacampus.dit.ac.tz

Website: http://www.ditmwanzacampus.ac.tz

List of Staff Members

Head

Dr. Albert. G. Mmari, BSc. Ed. (UDSM), MSc. Physics (UDSM), MSc. Seismology (Norway), DTech Chemistry (RSA)

Assistant Head (Academic and Administration)

Eng. Issa Mwangosi BSc Eng. (UDSM), MBA (Marketing) (OUT)

Tutorial Assistants

Mr. Dickson D. Katendele, Dipl., Comp.Eng. (DIT); B.Eng. Information System & Network Eng. (SJUT)

Mr. Juma Magambo, BSc. (Chemistry & Biology) (UDSM)

Senior Instructors

Mr. William Lohay BSc Ed (UDSM), MIEM (UDSM)
Mr. Issa Mwangosi, BSc Eng. (UDSM), MBA(Marketing)(OUT)
Mr. Moukhtar Ahmed, BSc. Ed. (Chem & Maths) (UDSM)

Instructors

Mr. Mahamud Abdallah, BS.Chem. Eng.(UDSM)
Senior Human Resource and Administrative Officer I
Ms. Alice Mwasyoge, BBA (UDSM), MSc. (HRM) (MU)

Accountant I
Mr. John B. Kwiyolecha, ADA (IFM), CPA (NBAA)

Principal Procurement Assistant II
Mr. Reuben K. Renatus, CPSP (PSPTB)

Internal Auditor II
Ms. Grace N. Tambo, ADA (SAUT), PGD-AF (SAUT).

Estates Officer II
Ms. Dorice N. Ngogo, BSc. Building Survey, (ARU)

Janitor II
Ms. Annastazia G. Mnaku, Dipl. Ed., (Butimba)

Driver II
Mr. Joseph Manase

Artisans
Mr.Emmanuel A. Bamugaya
Mr. Amri S. Mlawu
Mr. Anderson M. Magosha
Mr. Zakayo M. Machecho
Mr Zacharia G. Matonange

CHAPTER ELEVEN

DAR ES SALAAM INSTITUTE OF TECHNOLOGY

ACADEMIC CALENDAR FOR THE ACADEMIC YEAR 2017/2018

1.0 UNDERGRADUATE PROGRAMMES 2017/2018

1.1 Bachelor Degree 1st Year (B.Eng17 and B.Tech17)

S/N	DATE	WEEKS	SEMESTER	EVENT
1	30/10/2017-03/11/2017	1		ORIENTATION FOR FRESHERS 2017-2018
2	06/11/2017-10/02/2018	16	I	LEARNING PERIOD
3	12/02/2018-24/02/2018			END OF SEMESTER EXAMINATIONS
4	26/02/2018-18/03/2018	3		VACATION
5	19/03/2018-23/06/2018	16	II	LEARNING PERIOD
6	25/06/2018-06/07/2018			END OF SEMESTER EXAMINATIONS
7	09/07/2018-11/08/2018	5		VACATION
8	13/08/2018-24/08/2018	2		SUPPLEMENTARY EXAMINATIONS
9	27/08/2018-26/10/2018	9		INDUSTRIAL PRACTICAL TRAINING

1.2 Bachelor Degree2nd year (B.Eng16and B.Tech16)

S/N	DATE	WEEKS	SEMESTER	EVENT
1	06/11/2017-10/02/2018	16	I	LEARNING PERIOD
2	12/02/2018-24/02/2018			END OF SEMESTER EXAMINATIONS
3	26/02/2018-18/03/2018	3		VACATION
4	19/03/2018-23/06/2018	16	II	LEARNING PERIOD
5	25/06/2018-06/07/2018			END OF SEMESTER EXAMINATIONS
6	09/07/2018-11/08/2018	5		VACATION
7	13/08/2018-24/08/2018	2		SUPPLEMENTARY EXAMINATIONS
8	27/08/2018-26/10/2018	9		INDUSTRIAL PRACTICAL TRAINING

1.3 Bachelor Degree 3rdYear (B.Eng 15 and B.Tech15)

S/N	DATE	WEEKS	SEMESTER	EVENT
1	06/11/2017-10/02/2018	16	I	LEARNING PERIOD
2	12/02/2018-24/02/2018			END OF SEMESTER EXAMINATIONS
3	26/02/2018-18/03/2018	3		VACATION
4	19/03/2018-23/06/2018	16	II	LEARNING PERIOD
5	25/06/2018-06/07/2018			END OF SEMESTER EXAMINATIONS
6	09/07/2018-11/08/2018	5		VACATION
7	13/08/2018-24/08/2018	2		SUPPLEMENTARY EXAMINATIONS
8	27/08/2018-26/10/2018	9		INDUSTRIAL PRACTICAL TRAINING

2.0 ORDINARY DIPLOMA PROGRAMMES 2017-2018

2.1 Ordinary Diploma 1st year (OD 17)

S/N	DATE	WEEKS	SEMESTER	EVENT
1	30/10/2017-03/11/2017	1		ORIENTATION FOR FRESHERS 2017-2018
2	06/11/2017-10/02/2018	16	I	LEARNING PERIOD
3	12/02/2018-24/02/2018			END OF SEMESTER EXAMINATIONS
4	26/02/2018-18/03/2018	3		VACATION
5	19/03/2018-23/06/2018	16	II	LEARNING PERIOD
6	25/06/2018-06/07/2018			END OF SEMESTER EXAMINATIONS
7	09/07/2018-11/08/2018	5		VACATION
8	13/08/2018-24/08/2018	2		SUPPLEMENTARY EXAMINATIONS
9	27/08/2018-02/11/2018	10		INDUSTRIAL PRACTICAL TRAINING

2.2 Ordinary Diploma 2nd Year (OD 16)

S/N	DATE	WEEKS	SEMESTER	EVENT
1	06/11/2017-10/02/2018	16	I	LEARNING PERIOD
2	12/02/2018-24/02/2018			END OF SEMESTER EXAMINATIONS
3	26/02/2018-18/03/2018	3		VACATION
4	19/03/2018-23/06/2018	16	II	LEARNING PERIOD
5	25/06/2018-06/07/2018			END OF SEMESTER EXAMINATIONS
6	09/07/2018-11/08/2018	5		VACATION
7	13/08/2018-24/08/2018	2		SUPPLEMENTARY EXAMINATIONS
8	27/08/2018-02/11/2018	10		INDUSTRIAL PRACTICAL TRAINING

2.3 Ordinary Diploma 3rd Year (OD 15)

S/N	DATE	WEEKS	SEMESTER	EVENT
1	06/11/2017-10/02/2018	16	I	LEARNING PERIOD
2	12/02/2018-24/02/2018			END OF SEMESTER EXAMINATIONS
3	26/02/2018-18/03/2018	3		VACATION
4	19/03/2018-23/06/2018	16	II	LEARNING PERIOD
5	25/06/2018-06/07/2018			END OF SEMESTER EXAMINATIONS
6	09/07/2018-11/08/2018	5		VACATION
7	13/08/2018-24/08/2018	2		SUPPLEMENTARY EXAMINATIONS
8	27/08/2018-02/11/2018	10		INDUSTRIAL PRACTICAL TRAINING

3.0 POSTGRADUATE PROGRAMMES 2017-2018

3.1 Master in Computational Science and Engineering 2nd Year (MCSE 16)

SN	DATE	WEEKS	SEMESTER	EVENT
1	04/09/2017-17/12/2017	17	III	LEARNING PERIOD
2	18/12/2017-31/12/2017			END OF SEMESTER III EXAMINATIONS
3	01/01/2018-04/02/2018	5		VACATION
4	05/02/2018-25/02/2018	3	SEM I, II, & III	SUPPLIMENTARY EXAMS
5	26/02/2018-02/09/2018	27		DISSERTATION

3.2 Master of Engineering in Maintenance Management 1st Year (MENGMM 17)

SN	DATE	WEEKS	SEMESTER	EVENT
1	30/10/2017-05/11/2017	1	I	ORIENTATION
2	06/11/2017-18/02/2018	15		LEARNING PERIOD
3	19/02/2018-04/03/2018	2		END OF SEMESTER EXAMINATIONS
4	05/03/2018-25/03/2018	3		VACATION
5	26/03/2018-08/07/2018	15	II	LEARNING PERIOD
6	09/07/2018-22/07/2018	2		END OF SEMESTER EXAMINATIONS
7	23/07/2018-19/08/2018	4		VACATION
8	20/08/2018-02/09/2018	2		SUPPLIMENTARY EXAMS FOR SEM I & II.

3.3 Master in Computational Science and Engineering 1st Year (MCSE 17)

SN	DATE	WEEKS	SEMESTER	EVENT
1	30/10/2017-05/11/2017	1	I	ORIENTATION
2	06/11/2017-18/02/2018	15		LEARNING PERIOD
3	19/02/2018-04/03/2018	2		END OF SEMESTER EXAMINATIONS
4	05/03/2018-25/03/2018	3		VACATION
5	26/03/2018-08/07/2018	15	II	LEARNING PERIOD
6	09/07/2018-22/07/2018	2		END OF SEMESTER EXAMINATIONS
7	23/07/2018-19/08/2018	4		VACATION
8	20/08/2018-02/12/2018	15	III	LEARNING PERIOD
9	03/12/2018-16/12/2018	2		END OF SEMESTER EXAMINATION

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

The Leading Provider of High Quality Engineering Education, Research and Consultancy

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