**MAKERERE UNIVERSITY**

**College of Health Sciences**

**School of Health Sciences**

**Department of Dentistry**

**CURRICULUM FOR**

**THE BACHELOR OF SCIENCE IN DENTAL LABORATORY TECHNOLOGY**

**(BScDLT) DEGREE**

**October 2010**

# TABLE OF CONTENTS

Contents

[TABLE OF CONTENTS 2](#_Toc287426461)

[ACKNOWLEDGEMENT 4](#_Toc287426462)

[SUMMARY 5](#_Toc287426463)

[ABREVIATIONS: 6](#_Toc287426464)

[1.0 TITLE OF THE DEGREE TO BE AWARDED 7](#_Toc287426465)

[2.0 BACKGROUND 7](#_Toc287426466)

[3.0 INTRODUCTION 7](#_Toc287426467)

[4.0 JUSTIFICATION/RATIONALE OF THE PROGRAMME 8](#_Toc287426468)

[5.0 VISION OF THE COLLEGE OF HEALTH SCIENCES 8](#_Toc287426469)

[6.0 MISSION OF THE COLLEGE OF HEALTH SCIENCES 8](#_Toc287426470)

[7.0 COURSE PHILOSOPHY 8](#_Toc287426471)

[8.0 GENERAL OBJECTIVE: 9](#_Toc287426472)

[**8.2 Programme outcomes** 9](#_Toc287426473)

[9.0 REGULATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN DENTAL LABORATORY TECHNOLOGY 9](#_Toc287426474)

[**9.1 General programme regulations** 9](#_Toc287426475)

[**9.2. Admissions** 10](#_Toc287426476)

[**9.3 Examination regulations** 10](#_Toc287426477)

[**9.4 Retaking a course or courses** 10](#_Toc287426478)

[10.0 PROGRESSION 10](#_Toc287426479)

[**10.1 Normal progression** 10](#_Toc287426480)

[**10.2 Probationary progress** 10](#_Toc287426481)

[**10.3 Withdraw from a Programme/Course** 11](#_Toc287426482)

[**10.4 Certificate of due performance** 11](#_Toc287426483)

[**10.5 Absence from examination** 11](#_Toc287426484)

[**10.6 Discontinuation** 11](#_Toc287426485)

[11.0 AWARD 12](#_Toc287426486)

[12.0 NATURE OF THE PROGRAMME 12](#_Toc287426487)

[**12.1 Duration** 12](#_Toc287426488)

[**12.2 Length of semester** 12](#_Toc287426489)

[**12.3 Courses** 12](#_Toc287426490)

[**12.4 Course credits** 12](#_Toc287426491)

[13.0. ASSESSMENT AND EXAMINATION REGULATIONS 13](#_Toc287426492)

[14.0 PROPOSED DATE OF COMMENCEMENT: 13](#_Toc287426493)

[15.0 RESOURCES OF THE DEPARTMENT 13](#_Toc287426494)

[**15.1 Current programmes within the department of dentistry and staffing:** 13](#_Toc287426495)

[**15.2 Mulago Hospital Dental Laboratory** 13](#_Toc287426496)

[**15.3 Other financial resources** 14](#_Toc287426497)

[16.0 Registration 14](#_Toc287426498)

[COURSE STRUCTURE 14](#_Toc287426499)

[YEAR ONE SEMESTER ONE 14](#_Toc287426500)

[YEAR ONE SEMESTER TWO 15](#_Toc287426501)

[YEAR TWO SEMESTER ONE 15](#_Toc287426502)

[YEAR TWO SEMESTER TWO 15](#_Toc287426503)

[YEAR THREE SEMESTER ONE 15](#_Toc287426504)

[YEAR THREE SEMESTER TWO 15](#_Toc287426505)

[COURSE DETAILS 16](#_Toc287426506)

[YEAR ONE – SEMESTER ONE 16](#_Toc287426507)

[Mosby's Dental Hygiene: Concepts, Cases and Competencies - Susan J Daniel and Sherry 2002 16](#_Toc287426508)

[Stewart's Clinical Removable Partial Prosthodontics Rodney D Phoenix 2003 19](#_Toc287426509)

[YEAR ONE SEMESTER TWO 20](#_Toc287426510)

[Complete Dentures: From Planning To Problem Solving (Quintessentials of Dental Practice : Prosthodontics) P.Finbarr Allen 2000 22](#_Toc287426511)

[YEAR TWO SEMESTER ONE 23](#_Toc287426512)

[YEAR TWO SEMESTER TWO 27](#_Toc287426513)

[YEAR THREE SEMESTER ONE 30](#_Toc287426514)

[YEAR THREE SEMESTER TWO 34](#_Toc287426515)

[Year two semester two 41](#_Toc287426516)

[**Name:** Vulima Samuel Daneli 48](#_Toc287426517)

[**Education Background** 49](#_Toc287426518)

# ACKNOWLEDGEMENT

Makerere University School of Health Sciences and particularly the Department of Dentistry is grateful to Mulago Hospital for offering space to the programme and the Italian Organisations **SMOM -** Medical Dental Association Solidarity Worldwide Foundation, CAN **-** National Centre of Handicrafts and SNO - National Trade Union of Dental Technicians for accepting to fund the initial stages of the programme terms of material, financial and human resource.

# SUMMARY

**TITLE:** BACHELOR OF SCIENCE IN DENTAL LABORATORY TECHNOLOGY (BSc. DLT) OF THE COLLEGE OF HEALTH SCIENCES, MAKERERE UNIVERSITY

PROGRAMME SUMMARY

**POGRAMME CODE: DLT**

**TOTAL CREDIT UNITS:** 111

**PROGRAMME DURATION AND MODE:** Three year full time Course

**TYPE OF COURSE:** Coursework and examinations

**AWARD:** After successful completion of the three year training, the graduate shall be awarded the Degree of the Bachelor of Science in Dental Laboratory Technology (BSc DLT) not classified.

**JOB DESCRIPTION –**

At the end of the programme, the graduates will be expected to perform the following duties:

TECHNICAL DUTIES: Design and fabricate Dental appliances, prostheses and restorations that are of clinically acceptable standard including specialized appliances.

RESEARCH:Research for new insights and innovative solutions to oral health problems

TEAM WORK**:** Play their role as professional Dental Technologists within the Dental Team.

LEADERSHIP AND ETHICS**:** Understand the requirements of current legislation on Health and Safety locally and internationally, be ethical and provide leadership to subordinates and peers.

**Proposed Date of Commencement:** February 2011

# ABREVIATIONS:

**BSc DT -** Bachelor of Science in Dental Laboratory Technology

**DT -** Dental Technologist

**SMOM -** Medical Dental Association Solidarity Worldwide Foundation

**CAN -** National Centre of Handicrafts

**SNO** - National Trade Union of Dental Technicians

**SL**–Seniour Lecturer

**L –** Lecturer

**ASL** – Assistant lecturer

**TS** – Teaching Assistant

**PT** – Principal Technician

# 1.0 TITLE OF THE DEGREE TO BE AWARDED

The Degree shall be called Bachelor of Science in Dental Laboratory Technology (BScDLT)

# 2.0 BACKGROUND

Teeth are important for daily functions of an individual, including eating, speech and aesthetic facial appearance. Loss of teeth adversely affects the quality of life.

Due to the changing lifestyles in modern times, such as taking of sugary products which leads to oral diseases, tooth loss is quite prevalent. In Uganda it is estimated that, 65% of adults (Muwazi et al. 2005) and 20% of adolescents loose at least one or more teeth without being replaced. On the other hand, 100% of patients operated in Mulago Hospital with parts of their jaws removed for various reasons, never get those parts replaced as part of their rehabilitation (Head, Oral Surgery Unit, personal communication).

A few studies in Uganda have shown an increased demand for replacement of lost teeth in order to restore function and facial appearance. In Arua 45% of the sample in a pilot study (n=112) were in need of replacement of their lost teeth (Muwazi et al. 2002, unpublished).

Dental Technologists are the people who make replacements of lost parts in the form of dentures, crowns, bridges, veneers, in and onlays, maxillofacial and orthodontic appliances that improve patients’ appearance, speech and their ability to chew.

Prior to 1982, Uganda trained her Dental Technologists abroad, a very expensive exercise that resulted in low numbers. Makerere University in 1982 with the Ministry of Health and Ministry of Education and Sports decided to start training Dentists locally. Although this improved the clinical aspect of the service, the technical aspect was not addressed. Infact, sending them abroad for training was suspended in 1976, citing high costs. With time attrition in form of death and retirement has reduced Dental technologists to almost zero.

# 3.0 INTRODUCTION

Today Dental Technologists contribute to teaching in Universities on Dental Undergraduate Programmes and in other Higher Education Institutions. They have made a substantial contribution to research. The increasing application of computers to Dental Technology calls for an increased demand for Technologists who are able to adapt to new Technology. This implies that there is a need for training graduate Technologists who are able to adapt to modern changes and trends in technology, and where possible, contribute positively to directing these changes. In the East and Central African region, there is no Institution offering this kind of training at a degree level. On these grounds the Department of Dentistry, Makerere University is making a proposal for the introduction of a Degree of Bachelor of Science in Dental Laboratory Technology to train these graduates locally and at a cheaper cost.

# 4.0 JUSTIFICATION/RATIONALE OF THE PROGRAMME

By 1976, there were 15 practicing DTs in Uganda. The Ministry of Health then suspended sending more for training abroad citing high costs. Over time, natural attrition and retirement due to advanced age has reduced the number to almost none.

Sending one student to study in the U.K by 2009 was 35,000 pounds sterling per year in just tuition fees for a course of three years three times more expensive than training them locally.

Currently, there is no DT training programme at degree level in the Eastern and Central African region. This course will lead to improvement of service delivery consequently improving the quality of life enhancing economic productivity to meet the Millennium Development Goal number one. This course will enable capacity building in the Department and exchange of knowledge and technology from Italy to Uganda.

Students who would like to make a career of Dental Technology will be allowed to do so, both for their own sakes and for the profession as a whole.

The course will be available to a bigger catchment area with an economic gain to the University and the country. Creation of this course will also strengthen collaboration between Makerere University and the Italian Universities which wish to collaborate with Makerere and other partnering international training institutions

Uganda’s population is increasingly getting concerned about its appearance and speech therefore the demand for dental prosthesis is increasing.

Improvement in the economy is making people live longer hence prone to losing their natural dentition. Increased motorization also predisposes the population to accidents and potential loss of oral tissues that need to be replaced. The proposed initiative by the Department of Dentistry, School of Health Science, College of Health Sciences Makerere University is therefore one of such efforts towards improving the current situation.

# 5.0 VISION OF THE COLLEGE OF HEALTH SCIENCES

A leading and transformational institution for academic excellence and innovation in health sciences in Africa

# 6.0 MISSION OF THE COLLEGE OF HEALTH SCIENCES

The college of health Sciences exists to improve the health of the people of Uganda through innovative and responsive teaching, research and provision of services.

# 7.0 COURSE PHILOSOPHY

Health is a fundamental human right. Attainment of the highest possible level of health is an important universal goal.

The promotion and protection of the Health of people is essential to the economic and social development of the country.

Education is a dynamic process and learning is active and continuous.

Today's seeds are tomorrow's flowers.

# 8.0 GENERAL OBJECTIVE:

To improve the health of the people of Uganda through training professionals (Dental Technologists) complementary to Dental Surgeons in the provision of oral health services.

**8.1 Specific objectives:**

1. To Train Dental Technologists competent in designing and fabricating dental appliances, prostheses and restorations to a clinically acceptable standard.
2. To Train Technologists who understand their role and function in the Dental team.
3. To train Dental Technologists with leadership skills, ethical and professional qualities.
4. To train Dental Technologists proficient in research for new insights and innovative solutions to oral health problems
5. To train Dental technologists who show empathy towards patients in need of dental prostheses.

## **8.2 Programme outcomes**

**Knowledge:**

1. Dental Technologists, who know the principles of design, construction of Dental appliances, prostheses and restorations to a clinically acceptable standard.
2. Technologists who are knowledgeable in research methodology
3. Technologists who understand their role and functions within the Dental team

**Skills:**

1. Ability to design and fabricate Dental appliances, prostheses and restorations to a clinically acceptable standard.
2. Ability to carry out research
3. Technologists who play their role within the Dental team in management of dental patients.

**Attitude:**

Trained Technologists with empathy.

# 9.0 REGULATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN DENTAL LABORATORY TECHNOLOGY

## **9.1 General programme regulations**

Studies and examination for the degree of Bachelor of Science in Dental Laboratory Technology shall be governed by the general regulations and statutes of Makerere University and constituent colleges statute 2006.

## **9.2. Admissions**

a)Direct entrants who must possess:An Ordinary Level Certificate of Education or its equivalent and two-Advanced Level principle passes in two best done of Physics, Biology, Chemistry, and Mathematics. Principle passes in Fine Art or Technical drawing is an added advantage. A minimum of weighted points as shall be determined by the Admissions Board.

b). Diploma holders in a relevant health training from a recognised Institution

c). Mature age entry scheme**:** To qualify for admission under this scheme a candidate must pass the appropriate Mature Age Entrance Examinations set and marked by Makerere University.

## **9.3 Examination regulations**

At the end of each semester, all candidates will be required to sit written and oral examination plus practical examinations in courses where applicable. The results shall be approved at different stages: by the board of examiners composed of external and internal examiners, school board and college board.

## **9.4 Retaking a course or courses**

1. A student shall retake a Course or Courses when next offered in order to obtain at least the Pass mark (50%) if he/she had failed during the First Assessment in the Courses or Courses.
2. A student who failed to obtain at least the Pass Mark (50%) during the Second Assessment in the same course or Courses he/she has retaken shall receive a warning and be give a third (last) chance to retake the course(s).
3. A student may retake a Course or Courses when next offered again in order to improve his/her Pass Grade(s) if the Pass Grade(s) got at the first Assessment in the Course or Courses were low.
4. While retaking a Course or Courses, a student shall: -
   1. Attend all the prescribed lectures/tutorials/Clinicals/Practicals/Fieldwork in the Course or Courses;
   2. Satisfy all the requirement for the Coursework component in the Course or Courses and;
   3. Sit for the University examinations in the Courses or Courses

# 10.0 PROGRESSION

## **10.1 Normal progression**

Normal Progression shall occur when a student has passed the Assessments in all the Courses he/she had registered for in a particular Semester and not when he/she has passed the Assessments in the Core Courses only.

## **10.2 Probationary progress**

A student who has obtained the Cumulative Grade Point Average (CGPA) of less than 2.0 shall be placed on Probation. Such a student shall be allowed to progress to the next semester/academic year, but shall still retake the course(s) he/she had failed the assessments in later on and obtain at least the pass mark (50%) in the course(s).

## **10.3 Withdraw from a Programme/Course**

A registered student may choose to withdraw from a programme/course for various reasons by writing to the Academic Registrar through the Head of Department. The withdraw shall not exceed a total of 2 years in the programme duration.

Semester/Academic Year but shall still retake the Course(s) he/she had failed the Assessments in later on and obtain at least the Pass Mark (50%) in the Course(s).

## **10.4 Certificate of due performance**

A student who does not have course work marks shall be denied certificate of Due Performance and will not be allowed to sit the University Examinations.

A candidate will be denied a Certificate of Due Performancefor a course if on evaluation, the student’s performance in any of the three components below is deemed unsatisfactory viz:

(i) Attendance

(ii) Performance in class and

(iii) Practicals

Such a candidate will not be allowed to sit the examinations for the course in question

## **10.5 Absence from examination**

1. If the Board of College found out that a student has no justifiable reason for having been absent from a particular examination, such a student shall receive a fail (F) Grade(s) for the Course(s) he/she had not sat the examination in. The Course(s) in which the Fail (F) Grade(s) was/were awarded shall also count in the calculation of the CGPA.
2. If the Board of College is satisfied that a student was absent from a final examination due to justifiable reasons(s) such as sickness or loss of a parent/guardian, then a Course Grade of ABS shall be assigned to that Course(s). The student shall be permitted to retake the final examination when the Course would be next offered or at the next examination season if the Lecturer concerned can make the appropriate arrangements for the examinations.

## **10.6 Discontinuation**

* 1. When a student accumulates three consecutive probations based on CGPA he/she shall be discontinued.
  2. A student who failed to obtain at least the Pass Mark (50%) during the Third Assessment in the Same Course or Courses he/she had retaken shall be discontinued from his/her studies at the University.
  3. A student who has overstayed in an Academic Programme by more than Two (2) years shall be discontinued from his/her studies at the University.

|  |  |  |  |
| --- | --- | --- | --- |
| **Marks (%)** | **Letter Grade** | **Grade Point** | **Interpretation** |
| 90-100 | A+ | 5.0 | Exceptional |
| 80-89 | A | 5.0 | Excellent |
| 75-79 | B+ | 4.5 | Very Good |
| 70-74 | B | 4.0 | Good |
| 65-69 | C+ | 3.5 | Fairly Good |
| 60-64 | C | 3.0 | Fair |
| 55-59 | D+ | 2.5 | Pass |
| 50-54 | D | 2.0 | Marginal Pass |
| 45-49 | E | l.5 | Bad Fail |
| 40-45 | E- | l.0 | Qualified Fail |
| Below 40 | F | 0.5 | Qualified Fail |

# 11.0 AWARD

Candidates shall be required to sit and pass all prescribed courses where in addition to some specific faculty regulations and the general university examination regulations shall apply. After successful completion of the third year, candidates will be awarded The Degree of the Bachelor of Science in Dental Laboratory Technology (BSc DLT), which will be awarded without classification.

# 12.0 NATURE OF THE PROGRAMME

## **12.1 Duration**

The BScDLT programme shall run for a period of 3 years and each year shall consist of 2 Semesters.

## **12.2 Length of semester**

Each semester shall last 17 weeks of which 15 shall be for teaching and 2 for examinations.

## **12.3 Courses**

The programme is composed of 24 courses, which are compulsory and must be passed independently by a student in order to obtain an award. Each course has a description, learning outcomes and course contents that guide the student and lecturer.

## **12.4 Course credits**

Instructions shall be by courses, quantified into Course Credit Units:

(a) A credit unit is granted for a series of fifteen contact hours per semester or one contact hour per week per semester.

(b) A contact hour is calculated as being equivalent to:-

− One lecture hour

− One Tutorial/ Seminar hour

− One Practical/ Laboratory hour

(c) No course shall carry less than one credit unit.

Semester curriculum will be followed.

# 13.0. ASSESSMENT AND EXAMINATION REGULATIONS

Each course shall be assessed on the basis of 100 total marks with proportions as follows:-

Course work (Progressive/continuous assessment) 40%; Final Examinations 60%

Electives will be assessed by the responsible supervisors and given marks out of 100%.

The candidate will be examined at the end of each semester. The end of semester examination shall consist of a written examination, a clinical and a viva voce where appropriate. The final examination shall include practical and theory parts with the weights depending on the uniqueness of individual courses.

Phases: Any course with more than one part i.e Course X I and course X II, each part will be considered a phase and the first phase is prerequisite to the next phase.

# 14.0 PROPOSED DATE OF COMMENCEMENT:

Anybeginning of the semester 2010/2011 academic year

# 15.0 RESOURCES OF THE DEPARTMENT

Partner Institutions**:** Mulago Hospital Complex/Ministry of Health, The Medical Dental Association Solidarity Worldwide (SMOM) – Milano, Italy; National Center of Handicraft (CAN) – Italy; National Trade Unions of Dental Technicians (SNO) and the College of Health Sciences, Makerere University.

The College of Health sciences has a long history of providing Health Training. Within the School of Health Sciences where the programme is located, there is considerable expertise in the field of Dentistry as well as other areas like Nursing and Pharmacy.

## **15.1 Current programmes within the department of dentistry and staffing:**

There is an undergraduate programme of the Bachelor of Dental Surgery and the graduate programme of the Master of Dentistry (Oral and Maxillo-facial Surgery).The academic team to deliver the full time training will consist of 3 full time Dental Laboratory Technologists- (1 Italian and 2 Ugandans from Makerere University and Mulago Hospital) augmented by a highly enthusiastic group of lecturers in the Department

of Dentistry who include specialists in Maxillo-facial prosthetics, orthodontics, Conservative and Prosthodontics closely linked to Dental Laboratory Technology. In addition, over the first 3 years of the programme, Italian specialists in Dental Laboratory Technology sponsored by one of the partners, National Trade Unions of Dental Technicians (SNO) will come into the country to beef up the initial training of students as well as build capacity of the Department of Dentistry.

## **15.2 Mulago Hospital Dental Laboratory**

Mulago Hospital Department of Dentistry has adequate space that will be customised by the Italian Organisations to meet the training needs of the programme as well as improve service delivery of the laboratory. The basic equipment, benches with gas, water and electrical outlets will be installed as well as material supplies for training the students over the first 3 years of the programme will be provided.

The Department of Dentistry, Makerere University has also installed equipment worth ten thousand dollars.

## **15.3 Other financial resources**

This is a private sponsored programme. Fees from tuition will support the programme. The initial financial support will come from Italy as stipulated in the memorandum of understanding. This will include equipment costs and materials.

Mulago Hospital will clear any supplies to the country as they will be used both for service and training.

Tuition fees and private consultancy services from Mulago Hospital patients will provide additional resources for materials and support.

Makerere University has contributed additional new equipment worth 10,000 USD, which has been installed in the laboratory.

The College of Health Sciences has the Albert Cook Library with Medical and Dental books, periodicals, Dental journals like the British Dental Journal, American Dental Journal e.t.c. The trainees will also have access to the Main Library at the Main Campus. It has modern laboratory facilities, a modern library with off and on line journals. The ICT facilities are well established and easily accessible to the trainees in the College.

# 16.0 Registration

Upon completion, the graduates will be registered by the Allied Health Professional Council for practicing licenses. The council has been consulted in the development of this curriculum.

The posts of Dental Technology are already established in the Ugandan civil service. Makerere University is also restructuring to employ technicians with degrees

# COURSE STRUCTURE

# YEAR ONE SEMESTER ONE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course | LH | TH | PH | CH | CU |
| DLT 1111 Introductory Techniques | 15 | 10 | 40 | 45 | 3 |
| DLT 1112 Applied Dental Materials - I | 15 | 10 | 40 | 45 | 3 |
| DLT 1113 Dental Anatomy and Physiology | 20 | 20 | 70 | 75 | 5 |
| DLT 1114 ICT and Current Issues | 15 | 15 | 90 | 75 | 5 |
| DLT 1115 Partial Denture Design | 20 | 20 | 70 | 75 | 5 |
| TOTAL | 85 | 85 | 290 | 315 | 21 |

# YEAR ONE SEMESTER TWO

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course | LH | TH | PH | CH | CU |
| DLT 1211 Metal Technology | 30 | 10 | 60 | 75 | 5 |
| DLT 1212 Applied Dental materials -II | 20 | 20 | 70 | 75 | 5 |
| DLT 1213 Complete Dentures - I | 30 | 15 | 60 | 75 | 5 |
| DLT 1214 Cast restorations | 30 | 15 | 60 | 75 | 5 |
| TOTAL | 110 | 65 | 250 | 300 | 20 |

# YEAR TWO SEMESTER ONE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course | LH | TH | PH | CH | CU |
| DLT 2111 Metal Partial Dentures - I | 15 | 15 | 90 | 75 | 5 |
| DLT 2112 Clinical Observations | 15 | 15 | 90 | 75 | 5 |
| DLT 2113 Orthodontics -I | 15 | 15 | 60 | 60 | 4 |
| DLT 2114 Work Placement |  | 15 | 120 | 75 | 5 |
| TOTAL | 30 | 60 | 360 | 285 | 19 |

# YEAR TWO SEMESTER TWO

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course | LH | TH | PH | CH | CU |
| DLT 2211 Metal Partial Dentures - II | 30 | 15 | 60 | 75 | 5 |
| DLT 2212 Complete Dentures - II | 30 | 15 | 60 | 75 | 5 |
| DLT 2213 Ceramics | 30 | 15 | 60 | 75 | 5 |
| DLT 2214 Practice management I | 30 | 15 | 60 | 75 | 5 |
| TOTAL | 120 | 60 | 240 | 300 | 20 |

# YEAR THREE SEMESTER ONE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course | LH | TH | PH | CH | CU |
| DLT 3111 Complete Dentures - III | 30 | 15 | 60 | 75 | 5 |
| DLT 3112 Bonded Restorations | 30 | 15 | 60 | 75 | 5 |
| DLT 3113 Research Project | 15 | 15 | 30 | 45 | 3 |
| TOTAL | 75 | 45 | 190 | 195 | 13 |

# YEAR THREE SEMESTER TWO

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course | LH | TH | PH | CH | CU |
| DLT 3211 Orthodontics - II | 30 | 15 | 60 | 75 | 5 |
| DLT 3212 Dental assignments | 30 | 15 | 60 | 75 | 5 |
| DLT 3213 Advanced Technological Studies | 30 | 15 | 60 | 75 | 5 |
| DLT 3214 Perspective on the Dental Team | 15 | 15 | 30 | 45 | 3 |
| TOTAL | 105 | 60 | 210 | 270 | 18 |

# COURSE DETAILS

# YEAR ONE – SEMESTER ONE

**DLT 1111 Introductory Techniques 45 CH, 3 CU**

**Description:**

This is an overview course introducing students to skills required for the successful and safe manipulation of materials and the techniques required to construct appliances in relation to occlusion as it is the key to aesthetics and oral function.

**Objectives/outcomes:**

By the end of the course, the students should be able to:

Operate safely in a Dental laboratory

Acquire skills in the manipulation of many commonly used Dental materials

Describe the basic techniques involved and the principles of occlusion

**Content**

Dental laboratory safety procedures and precautions (including cross-infection decontamination and health and safety legislation)

Concepts and techniques associated with the construction of the following:

Special trays, Occlusal rims, Acrylic jacket crowns, Relines, Repairs, Tissue protectors and Orthodontic base plates

**Teaching & Learning Strategies:**

This is a predominantly laboratory based course with a variety of practical exercises, lectures and tutorials.

**Mode of Assessment**

- Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading List**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Ash MM, Ramfjord SP 1982 An introduction to functional occlusion London Saunders

Bates JF, Huggett R and Stafford GD 1991 Removable denture construction Bristol Wright

Houston WJB and Isaacson KG (2nd Ed) 1980 Orthodontic treatment with removable appliances Bristol Wright

Levisons textbook for Dental Nurses – 10th edition 2008

Mosby's Dental Hygiene: Concepts, Cases and Competencies - Susan J Daniel and Sherry 2002

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer); Dr.Aisha Bataringaya BDS, M.Ch Orthodontics.( Lecturer); Mr. Giacomo; Howard Besigye – Dental Technician

**DLT 1112 Applied Dental Materials 45 CH, 3 CU**

**Description**

The course introduces the general requirements of materials for both intra-oral and dental laboratory use.

**Objectives:**

Enable the student develop a thorough knowledge of the basic principles underlying materials technology, including the properties, processing and manipulation of dental materials. The student should acquire skills in current basic laboratory practices and performances

**Learning Outcomes:**

By the end of the course students should be able to:

Describe the suitability of materials with regard to their use in oral and laboratory environments

Describe the properties and preparation of Dental materials

**Content**

The selection and evaluation of dental materials, and their properties.

Impression materials, their classifications, constituents and functions: Dental plasters, manufacture, properties, classifications and uses, Dental waxes, constituents, properties classifications and uses, Dental polymers, their constituents, processing and associated faults, including dental base materials, resilient liners, synthetic tooth materials, composite resins and orthodontic resins, Refractory investments, constituents, properties and uses and Dental abrading and polishing systems

**Suggested Reading List:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Technique manual – Elmer Rose and Alvarez. USA 2000

Dental Technology and materials for students H.J Wilson et al Blackwell Science 8th edition 2000

Smith BG 1986 The clinical handling of dental materials Bristol Wright

Van Noort R 1994 Introduction to dental materials London Mosby

Esthetic Dentistry and Ceramic Restorationsby Bernard Touati DMD, Daniel Nathanson DMD MSD, Paul Miara ISBN 185317159X Publisher: Martin Dunitz, Jan. 1999

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Course Facilitator**

Dr. Ochieng Francis BDS, M.Sc Conservative Dentistry (Lecturer)

**DLT 1113 Dental Anatomy and Physiology 75CH, 5 CU**

**Description:**

The Course gives detailed knowledge of the temporomandibular joint, the muscles of mastication, the facial skeleton, oral cavity and other relevant surrounding structures of the head and neck and relates the above to the construction of dental restorations and appliances

**Objectives:**

At the end of the course, the students should be able to:

Describe the anatomical and physiological factors affecting the design of prostheses, restorations and appliances and to facilitate communication within the Dental team.

**Content**

Skeletal anatomy and physiology of the human head and neck., The anatomy and physiology of the orofacial musculature. The anatomy and physiology of the masticatory system and its effects on the oral environment. Patterns of tooth loss and eruption.

Introduction to dental occlusion. An outline of disorders and diseases which affect the oral cavity.The oral cavity as a habitat for micro-organisms and their possible effects.

Dental Pain, Saliva

**Mode of Assessment**

- Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading List**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Berkovitz B K B, Holland G R & Moxham B J 1978 A colour atlas & textbook of oral anatomy London Wolfe Medical Publications Ltd.

Oral Bioscience David B. Fergusson 1998

McMinn’s colour atlas of Head and Neck anatomy – Bari M Logan M Msoby 2004

**Course Facilitators**

Dr. Buwembo W. BDS, PHD Anatomy(Lecturer)

Dr. Haruna Kiryowa BDS, M.Sc Anatomy (Lecturer)

**DLT 1114 ICT and Current Issues 75 CH 5CU**

**Description:**

The course provides an introduction to basic IT skills and to important topics of current general interest.

**Objectives:**

By the end of the module students should be able to:

Carry out basic operations with computers which may be applied to coursework

Discuss the issues of the day which affect future career structures and patterns of work.

**Content:**

Computer Literacy:Introduction to word processing and data presentation (databases, spreadsheets and graphics)

Dental topics available on CD Roms and the World Wide Web., CAD/CAM in dentistry and maxillio-facial technology, Customer Care and Quality Management, Data Analysis and Statistics

Current Issues: Current issues affecting dental technology (for instance, topics of concern at the moment include statutory registration, direct payment to laboratories

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short

answer and long assay questions and practicals **60%.**

**Suggested Reading**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Osborne, C J 1993 Multimedia in dentistry: an investigation of current trends Sheffield University of Sheffield

European Computer Driving Licence 2004 edition

World Wide Web:

DERWeb: (Dental Education Resources on the Web)

Dental schools and organisations on the WWW

**Course Facilitators**

Dr. Charles Rwenyonyi BDS, PhD Conservative Dentistry (Sr. Lecturer)

Dr. Arabat Kasangaki MD. Stomatology,MDS. Oral and Maxillofacial Surgery

**DLT1115 Partial Denture Design CH 75 CU 5**

**Description:**

The course introduces students to the concepts associated with partial denture design and how to maintain or improve oral health.

**Objectives:**

By the end of the module students should be able to:

Recognise and appreciate the advantages and disadvantages of partial dentures

Describe their classification.

Describe the principles of design of acrylic partial dentures

Acquire skills and detailed working knowledge of surveying dental casts

**Content:**

Indications and contraindications for the provision of partial dentures.

Classification systems, Surveying techniques and requirements

Design principles, Components of partial dentures. Mucosa borne dentures, retentive features.

Transference of masticatory stresses to underlying mucosa and other structures

Problems with restricted space

**Teaching & Learning Strategies:**

The course is predominantly laboratory based with a variety of practical exercises. There will be use of lectures, CD ROM, video film techniques and tutorials

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Bates JF, Huggett R and Stafford GD (3rd Ed.) 1991 Removable denture construction Bristol Wright

Davenport JC, Basker RM, Heath JR and Ralph JR 1988 A colour atlas of removable partial dentures London Wolfe Medical Publishers Ltd.

# Stewart's Clinical Removable Partial Prosthodontics Rodney D Phoenix 2003

Removable Partial DenturesNicholas J.A. Jepson, B.D.S., F.D.S.R.C.S.Eng., Ph.D.

London: Quintessence Publishing Co., Ltd., 2004. ISBN 1-85097-075-0

**Course Facilitators**

Dr. Moses Nkamba BDS, M.Sc Commnity Dentistry ( Lecturer)

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

# YEAR ONE SEMESTER TWO

**DLT 1211 Metal Technology 75 CH 5CU**

**Description:**

This course is about the basic systems of most dental procedures which involve wrought metal techniques, metal melting, casting and finishing.

**Objectives:**

By the end of the Coursee students should be able to:

Describe the nature of the alloys used in dentistry

demonstrate and apply the principles of the lost wax process

demonstrate and apply the principles of metal melting, casting and finishing systems

demonstrate and apply the principles of soldering, welding and heat treatments of dental alloys and wires

demonstrate competence in the construction of cast metal structures and apply the above principles to specific dental prostheses construction

**Content**

Lost wax process castings; direct and indirect.,Metal melting systems (flame systems and electrical.); Casting pressure. Casting faults .Finishing systems: abrading, electropolishing, pickling

Soldering and brasing. Welding. Heat treatments of various dental alloys; Wrought alloy techniques (stainless steel and gold, bars and wires)

**Teaching & Learning Strategies:**

The course is predominantly laboratory based with a variety of practical exercises. There will also be lectures, seminars and tutorials.

**Mode of Assessment**

- Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

McCabe JF 1990 Anderson's applied dental materials Oxford Blackwell

Skinner EW and Philllips RW (6th Ed.) 1969 The science of dental materials London WB Saunders Co.

Stananought D 1978 Laboratory procedures for full and partial dentures Oxford Blackwell scientific publications

Wilson HJ, Mansfield MA, Heath JR and Spence D (8th Ed.) 1987 Dental technology and materials for students Oxford Blackwell Scientific Publications

Technique manual Alvarez and Elmer Rose USA 2000

Metal Ceramic technology W.Patrick Singapore 2000

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

**DLT 1212Applied Dental Materials II 75CH 5CU**

**Description:**

To develop among the students an understanding of the structure of dental alloys and the advantages and limitations of dental materials

**Objectives:**

By the end of the course students should be able to;

Demonstrate a detailed knowledge of the materials used within the oral cavity and the dental laboratory which are essential for the construction of dental appliances and restorations.

Describe the classification of dental materials according to structure and physical properties.

Ability to evaluate the fitness for purpose of dental materials in relation to structure, physical and chemical properties.

**Content**

The metallurgy, physical properties, constituents and heat treatments of dental alloys

The metallurgy, physical properties and constituents of dental solders and fluxes

The nature of dental ceramics, crack propagation, strengthening and bonding to alloys

Dental bonding alloys, their selection, constituents and uses

Dental luting cements, their selection and uses

Adhesion of conservative materials to natural teeth

The principles of electrolytic and galvanic cells and corrosion within the oral environment and the dental laboratory

Implant materials their requirements and uses

**Teaching & Learning Strategies:** Lectures, tutorials and student centered learning

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Macabe JF 1990 Anderson's applied dental materials Oxford Blackwell

Craig RG 1987 Dental materials properties and manipulation St Louis Mosby

Hastings GW 1980 Mechanical properties of biomaterials Chichester Wiley

Introduction to Dental materials Richard Van Noort M Mosby 2002

**Course Facilitators**

Dr. Ochieng Francis BDS, M.Sc Conservative Dentistry (Lecturer)

Italian specialists on short visits

**DLT 1213 Complete Dentures - I 75CH, 5 CU**

**Description:**

The course gives an insight in the demographic trends in Africa and the possible difficulties and problems patients may experience wearing dentures. It also introduces students to the use of articulators, clinical records and the principles of tooth arrangement. As well help them develop an understanding of the conditions needed to maximise the function of dentures.

**Bjectives:**

By the end of the module students should be able to:

To describe the demographic trends

Describe the factors affecting retention, stability and occlusion and the potential difficulties patients may experience

Recognise the types and functions of articulators

Fabricate prostheses with a clinically acceptable denture base and a satisfactory arrangement of teeth.

**Content:**

Demographic distribution of edentulous patients, Functions of occlusal rims, Types of articulators, Factors affecting the functions of dentures, Artificial tooth selection, Principles of occlusion and Introduction to balanced articulation

Positioning of teeth in class 1 skeletal jaw relationships, Construction of full dentures to opposing natural and artificial dentitions

**Teaching & Learning Strategies:**

Lectures, tutorials, videos, practical demonstrations and laboratory work

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Halperin A 1988 Mastering the art of full dentures London Quintessence

Lamb DJ 1993 Problems and solutions in complete denture prosthodontics London Quintessence

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

Complete Dentures: From Planning To Problem Solving (Quintessentials of Dental Practice : Prosthodontics) P.Finbarr Allen 2000

**Course Facilitators**

Dr. Moses Nkamba BDS, M.Sc Commnity Dentistry ( Lecturer)

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Dr. Steven Mugabe BDS., Certificate Complete Denture Prosthetics

**DLT 1214 Cast Restorations**

**Description:**

This course provides a firm basis for the construction of accurate cast alloy/ metallo-ceramic components, required during restorative techniques.

**Objectives:**

By the end of the module students should be able to:

1. Develop conceptual and practical competencies in the construction of alloy and metallo-ceramic restorations.

2. Describe the principles involved in their design and construction.

3. Describe the various treatments for damaged teeth.

4. Discuss the effect of occlusal forces to restorative design.

5. Discuss the indications for, and the techniques used, to construct a wide range of conservative cast restorations.

**Content**

Review of the pertinent sections of the materials modules, Tooth morphology, Principles of occlusion and tooth preparation, The processes and effect of caries, Interpretation of prescriptions Die construction, Full and partial crowns, inlays and copings, Temporary and permanent restorations, Types of margins, Waxing casting and finishing systems

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Allen DN 1986 Crown and bridge prosthodontics Bristol Wright

Conwell CR 1985 Inlays crowns and bridges Bristol Wright

Crispin BJ 1994 Contemporary aesthetic dentistry London Quintessence

Eismann HF, Rudd KD and Morrow RM 1980 Dental laboratory procedures: fixed partial dentures London Mosby

Johnston JF 1986 Johnston's modern practices in fixed prosthodontics Philadelphia and London Saunders

Rosentiel S F et al 1988, Contemporary fixed prosthodontisc St Louis Mosby

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres from Italy

# YEAR TWO SEMESTER ONE

**DLT 2111 Metal partial dentures –I 75CH 5CU**

**Description:**

To impart knowledge of the reasons for the provision of metal partial dentures and competence to construct basic designs to a clinically acceptable level. Aspects of the design and construction principles developed in the level 1 module on partial dentures will be applied to metal frameworks.

**Objectiveses:**

By the end of the module the student will be able:

Discuss the advantages and disadvantages of metal partial dentures and reasons for their provision.recognise

Describe the function of components of metal partial dentures.analyse the indications and contra-indications when prescribing metal partial dentures.

Ability to evaluate the problems associated with tooth-borne partial dentures.

Demonstrate and apply surveying techniques for the design and construction of metal partial dentures.

**Content:**

Components of metal partial dentures: saddles, major and minor connectors, retaining units, occlusal supports. Tooth borne partial dentures. Principles of the lost wax process during construction of metal partial dentures. Component design, advantages and disadvantages of such designs

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Applegate OC (3rd Ed.) 1965 Essentials of removable partial denture prosthesis Philadelphia and London WB Saunders Co.

Bates JF, Huggett R and Stafford GD (3rd Ed.) 1991 Removable denture construction Bristol Wright.

J C Davenport, R M Basker, J RHeath,J P Ralph & P 0 Glantz A clinical guide to removable partial denture design 2000

Contemporary Fixed prosthodontics – Rosenstiel, land and Fugimoto Elsevier Morsby 2001

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 2112 Clinical Observation 75CH, 5 CU**

**Description:**

The aims of this course are: to develop analytical approaches to cases, and provide

structured experience of a variety of treatments ethics and professionalism within dentistry

**Objectives:**

By the end of the module students should be able to:

Consolidate skills and knowledge acquired during the previous courses

Observe their application to clinical situations.

Develop a good comprehension of current standards of performance.

Develop methods of comparative observation.

Develop individual maturity, ethics, professionalism and confidence.

**Content:**

Observe and compare the effective operation and problem solving of dental teams, Record and evaluate any noticeable technical/system differences and analyse treatment planning and organisation of a work situation, Appraise different uses of materials and techniques, Appraise communication within the dental team and group dynamics

**Teaching & Learning Strategies:**

Tutorial, seminars and student centred activities

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: Long assay questions **60%.**

**Suggested Reading:**

Relevant texts cited in the above modules

Journals to include:

American Journal of Orthodontics

British Dental Journal

Journal of Prosthetic Dentistry

The Cleft Palate and Craniofacial Journal

**Course Facilitators:**

Dr. Louis Muwazi MD (Stomatology), PhD (OMFS) Sr. Lecturer)

Dr. Charles Rwenyonyi BDS, PhD Conservative Dentistry (Sr. Lecturer)

Dr. Isaac Okullo BDS, PhD Public Health Dentistry (Sr. Lecturer)

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Dr. Ochieng Francis BDS, M.Sc Conservative Dentistry (Lecturer)

Dr.Aisha Bataringaya BDS, M.Sc Orthodontics.( Lecturer)

Dr. Arabat Kasangaki MD. Stomatology,MDS. Oral and Maxillofacial Surgery, MSc. Peadiatric dentistry (Lecturer)

**DLT 2113 Orthodontics I 60 CU, 4CU**

**Description:**

This is the first orthodontic course , thus is concerned with removable orthodontic appliances: the methods of creating pressure on malpositioned teeth and the effects produced.

**Objectives:**

By the end of the module the student will:

To discuss the aims and objectives of removable appliance orthodontic treatment.

Describe and recognise the aetiology of malocclusion.

Demonstrate and apply the principles of design and construction of removable appliance components.

Demonstrate the procedures for utilising and fitting patients with extra-oral appliances.

Demonstrate knowledge of the construction of orthodontic appliances.

Discuss the physiological changes which take place during tooth movements.

**Content:** Concept of normal occlusion., Study models and cephalometric radiographs: their role in treatment planning and record keeping. Aetiology of malocclusion: soft tissue, hard tissue, local factors. Design of removable orthodontic appliances, active and passive., Construction of appliances for orthodontic treatment., Effects of application of force to teeth and their supporting structures.,Fitting and adjustment of appliances.

**Teaching & Learning Strategies:**

Predominantly the course is laboratory based with a variety of practical exercises. Case studies will be incorporated along with the use of practical projects supported by small group tutorials. There will also be formal lectures.

**Teaching & Learning Strategies:**

Tutorial, seminars and student centred activities

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Adams CP et al (6th Ed.) 1990 The design, construction and use of removable orthodontic appliances Bristol Wright

Houston WJB, Stephens CD and Tulley WJ (2nd ed) 1992 A textbook of orthodontics Bristol Wright

Orthodontics Current principles and techniques Graber,vanarsdal Elsevier Morsby 2000

**Course Facilitators:**

Dr.Aisha Bataringaya BDS, M.Sc Orthodontics.( Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 2114 Work Placement 75CH, 5CU**

**Description:**

The course is aimedto provide a dental laboratory work environment which will familiarise the student with normal working practices and conditions, develop safe working practices specific to the laboratories ,promote professional work attitudes and reliability and further enhance practical and conceptual skills developed in previous courses.

**Objectives:**

By the end of the module students should be able to:

Demonstrate work safety in the laboratory and clinical environment.

Demonstrate professional reliability.

Apply knowledge to the manufacture of unique appliances and restorations to a clinically acceptable standard in a reasonable time.

**Content:**

A minimum of 75 hours of laboratory placement, All technical work produced by the student graded by the supervisor, Working ability, reliability and attitudes reported by the supervisor

**Teaching & Learning Strategies:**

Tutorial, seminars and student centred activities

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: Long assay questions **60%.**

**Suggested Reading:**

This is an observation of students conduct in the laboratory. Lecture handouts and additional materials

**Course Facilitators:**

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

# YEAR TWO SEMESTER TWO

**DLT 2211 Metal partial Dentures – II 75CH, 5 CU**

**Description:**

To impart to the students critical awareness of partial denture designs and utilise the principles in comparatively complex cases as well as build on the existing knowledge gained in studying 'Metal Partial Dentures: I

**Objectives:**

By the end of the module students should be able to:

Analyse different designs possibilities for each partial denture classification.

Discuss the problems associated with tooth /mucosa borne partial dentures.

Demonstrate and apply the use of wrought components in association with cast metal, frameworks.

Ability to evaluate, according to criteria, the use of different alloys during construction.

**Content:**

Tooth/mucosa borne partial dentures. Altered cast techniques. Alternative processing systems. Stress-broken designs. Soldering gold alloys and cobalt/chromium alloys.

**Teaching & Learning Strategies:**

The course is predominantly laboratory based with a variety of practical exercises and student centered learning. There will also be lectures, tutorials and demonstrations

**Mode of Assessment**

- Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading materials:**

Contemporary Fixed prosthodontics – Rosenstiel, land and Fugimoto Elsevier Morsby 2001

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 2212 Complete Dentures II 75CH, 5CU**

**Description:**

the course is a build on the introductory principles of treatment of the single arch edentulous patient and extends these to complete restorations.

**Objectives:**

By the end of the module students should be able to:

Discuss the influences which may affect the work context of the future.

Apply previous knowledge to the construction complete dentures for class 1 skeletal jaw relationships in balanced articulation and describe the principles of class 2 and 3 treatments.

fabricate dentures with soft liners.produce duplicate dentures.

**Content:**

Trends in the African population and the expected effects on dental treatment

Fixed condylar path articulators, Principles of denture tooth arrangement in class 1, 2, and 3 skeletal jaw relationship,Hanau's laws, Construction of class 1 dentures, Soft lining techniques, Duplicate dentures

**Teaching & Learning Strategies:**

These will be of a student centred practical nature but will also include a significant number of lectures, tutorials and demonstrations

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Applegate OC (3rd Ed.) 1965 Essentials of removable partial denture prosthesis Philadelphia and London WB Saunders Co.

Bates JF, Huggett R and Stafford GD (3rd Ed.) 1991 Removable denture construction Bristol Wright.

Henderson D, McGivney GP and Castleberry DJ (7th Ed.) 1985 McCracken's removable partial prosthodontics St Louis CV Mosby Co.

Stratton RJ and Wiebelt FJ 1988 An atlas of removable partial denture designs London Quintessence

Contemporary Fixed prosthodontics – Rosenstiel, land and Fugimoto Elsevier Morsby 2001

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 2213 Ceramics**

**Description:**

The course is aimed at developing conceptual and practical competencies in the construction of ceramic and metallo-ceramic restorations and foster an understanding of the principles involved in their design and construction. It utilizes previous knowledge relating to the requirements of crown construction and applies it to the context of ceramic restorations.

**Objectives:**

By the end of the module students should be able to:

Demonstrate and apply previous knowledge to produce clinically acceptable anterior and posterior prosthodontic restorations.

Apply previous knowledge to produce aesthetically acceptable anterior and posterior prosthodontic restorations

Apply the methods and the science of reproducing natural teeth in dental porcelain Analyse the effects of the age factor in the construction of porcelain restorations

**Content:**

A review of the pertinent sections of the 'materials' and 'cast restorations' modules, Theories of the nature of colour and light. Modified tooth preparation for aesthetic crowns, Shade taking, Dental porcelain systems: PJC's, laminate veneers, bonded veneers, Operation of porcelain furnaces, Methods of porcelain application, firing and glazing, Tooth morphology

**Teaching & Learning Strategies:**

Lectures, tutorials, videos, practical demonstrations, laboratory work and student centred learning.

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Hitoshi A 1992 A collection of ceramic works London Quintessence

Mclean JW 1983 Dental ceramics proceedings of the first international symposium London Quintessence

Mclean JW 1979 Science and art of dental ceramics Vols1and 2 London Quintessence

Muir PJ 1982 The four dimensional tooth colour system London Quintessence

Naylor WP1992 Introduction to metal ceramic technology London Quintessence

Contemporary Fixed prosthodontics – Rosenstiel, land and Fugimoto Elsevier Morsby 2001

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 2214 Practice management I 75 CH, 5 CU**

**Description:**

To provide a dental laboratory work environment which will familiarise the student with normal working practices and conditions, cultivate safe working practices specific to the laboratories selected, promote professional work attitudes and reliability and further enhance practical and conceptual skills developed in previous modules

**Objectives:**

By the end of the module students should be able to:

Demonstrate the ability to work safely in the laboratory and clinical environment. Demonstrate professional reliability.

Apply knowledge to the manufacture of unique appliances and restorations to a clinically acceptable standard in a reasonable time.

**Content:** laboratory placement, All technical work produced by the student graded by the supervisor, Working ability, reliability and attitudes reported by the supervisor

**Teaching & Learning Strategies:**

Supervised placement within a dental laboratory.

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

Hand outs, manuals

**Course Facilitators**

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

# YEAR THREE SEMESTER ONE

**DLT 3111 Complete Dentures III**

**Description:**

The course applies the principles of tooth arrangement learnt in previous modules to the construction of prostheses for patients with class 2 and 3 skeletal jaw relationships. The use of semi adjustable articulators will be covered as well as immediate denture construction.

**Objectives:**

By the end of the module students should be able to:

Describe the technical procedures needed to construct complex dentures, including immediate replacements, and duplicate dentures to a clinically acceptable standard.

Analyse basic concepts associated with obturators and implantology competently advise on technical aspects during treatment planning

**Content:**

Semi-adjustable (e.g. 'Dentatus') articulators, use of the face bow and associated clinical records. The relationship of the above to the physiology of the temporomandibular joint and mandible. The principles of tooth arrangement for class II and III cases. The construction of C/C dentures for class II and III cases. Immediate denture construction. Duplicate denture construction.

**Teaching & Learning Strategies:**

Primarily laboratory based, including student centered activities, demonstrations, lectures and tutorials.

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Bates J F, et al 1984 Dental treatment of the elderly Bristol Wright

Halperin A (1988) Mastering the art of full dentures, London Quintessence

Contemporary Fixed prosthodontics – Rosenstiel, land and Fugimoto Elsevier Morsby 2001

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 3112 Bonded Restorations 75 CH, 5 CU**

**Description:**

The course is designedTo impart knowledge in the design and construction of single bonded crowns and small span bridges. The principles of crown construction from earlier modules will be applied to bridge construction.

**Objectives:**

By the end of the module students should be able to:

Apply knowledge to produce restorations combining the strength of alloys with the aesthetics of porcelain.

Analyse available designs of alloy substructures for bonded restorations be able to evaluate and select bonding alloys, investment materials and various porcelain systems into successfully manufactured bonded restorations

**Content:**

A review of the pertinent materials components, Bonding alloys, Alloy substructure design and construction, Tooth preparation for bridges, Bonding porcelain/alloy systems, Dental bridge designs and their component parts, Indications and contraindications of bridges, Bonding alloy/teeth systems

**Teaching & Learning Strategies:** Lectures, tutorials, videos, practical demonstrations, laboratory work and student centred learning

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Aoshima H A 1988 Collection of ceramic works London Quintessence

Hegenbarth EA 1989 Creative ceramic colour London Quintessence

Mclean JW 1979 Science and art of dental ceramics vols1 and 2 London Quintessence

Mclean JW 1983 Dental ceramics: proceedings of the first international symposium London Quintessence

Contemporary Fixed prosthodontics – Rosenstiel, land and Fugimoto Elsevier Morsby 2001

A Colour guide to Fixed and removable prosthodontics C.W. Barclay, A.D Warmsley Churchill Livingstone 2001

**Course Facilitators**

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Dr. Ochieng Francis BDS, M.Sc Conservative Dentistry (Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 3113 Research and research project**

**Description:**

This course aims to introduce the student to research design, focus on evaluating existing research, focus on tools of research and provide experience of research methods through practicals. The course will prepare students for the research project.

The project is deemed critical for the development of the higher cognitive skills and is intended to provide students with the opportunity to work independently. Additionally the project is seen as an integrating process with the student applying knowledge and skills derived from other parts of the course. Work undertaken may include materials testing, studies of design modifications and surveys relating to questions such as patient satisfaction. Students will be required to devise the projects and to present the data relevant to the stated aims of the research.

**Objectives:**

By the end of the module students should be able to:

Develop an independent approach to research or the solution of problems enable students to gain practical and directly relevant experience in problem solving or research design and methodology

**Content:**

Introduction to research methods, (writing skills within a research framework, report writing), quantitive and qualitative research, statistics

Research methods: experimentation and observation, correlation studies, interviewing, questionnaire design, content analysis, rating scales, check list and attitude scales

**Teaching & Learning Strategies:**

Lectures, seminars and practicals.

**Content:**

The identifiable phases of the Project are:

The identification and definition of the problem giving evidence of a reasoned choice of topic

Production of a set of aims and objectives for the work to be incorporated into the project

Determination of a number of ways in which the achievement of the stated objectives can be realised

Collection of information from a number of sources, primary and secondary, and the evaluation of its relevance

Generate a plan for the realisation of the most feasible solution

Discrimination of strengths and weaknesses of the proposed solutions with particular reference to the stated objectives

Production of a report which will reflect the elements described above and may be used in the presentation of a paper in a colloquium. The report will be written in the standard format and will be of the order of 10,000 words (maximum) in length.

In assessment the following points will be considered.

**a) Introduction:**

**b) Content:** quality of argument, support from literature, evaluation of literature, coverage in relation to title structure, style

**c) Method:**Content, structure,style,

**d) Results:** presentation of data, analysis of data

**e) Discussion/conclusion:**

content

coverage in relation to introduction

quality of argument

assessment of data in results section

relationships to literature

evaluation of results

conclusions with suggestions for further research, structure style

**Project overall**

originality of work, presentation , referencing

**Ability of student to work independently**

choice of topic

evidence of independent thinking

appropriate use of supervision

**Additional Information**

Students will be supervised by two members of staff, one with a particular interest in the chosen topic and the other with expertise in dental research.

There will be a Project Co-ordinator who will be responsible for advising each student on the overall design of the Project

**Report Format**

The report of the Project will be written as a research report in a format suitable for submission as a journal article. The complete report will be 10,000 words (maximum) in length.

The report should:

-introduce the background of the topic to be studied

-discuss relevant theoretical perspectives and research and show how the Project --is related to these

-justify the aims of the study or the hypothesis tested, where appropriate

-give a clear statement of the method of the Project, with details of the design adopted, e.g., what variables were controlled, manipulated or measured; materials and machines used for testing and procedures

-give a clear description of the results obtained, with appropriate analysis

-provide a detailed discussion of the Project by interpreting the results obtained, relating the findings to the aims of the study and to relevant theoretical issues and discussing the implications of the investigation to theory and practice

**Mode of Assessment**

Continuous assessment **40%**.  **(**Project report, A critique of published papers 2,000 words **60%.**

**Suggested Reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Coolican H 1990 Research methods and statistics in psychololgy London Hodder and Stoughton

Dane FC 1990 Research methods Pacific Grove Brooks/Cole

Mitchell M and Jolley J 1988 Research design explained Fort Worth P Holt, Rhinehart and Winston

Robson C 1973 Experiment design and statistics Harmondsworth Penguin books

Oppenheim AN 1992 Questionnaire design, interviewing and attitude measurement London Pinter

**Course Facilitators**

Dr. Charles Rwenyonyi BDS, PhD Conservative Dentistry (Sr. Lecturer)

Dr. Isaac Okullo BDS, PhD Public Health Dentistry (Sr. Lecturer)

# YEAR THREE SEMESTER TWO

**DLT 3211 Orthodontics II 75CH, 5 CU**

**Description:**

By the end of this course the student will have a comprehensive understanding of fixed orthodontic and functional appliance techniques and the role of the technician with regard to these. They will recognise the use of functional appliances both solely, and as an adjunct to some fixed treatment plans.

**Objectives:**

By the end of the module students should be able to:

Critically evaluate designs and design principles of fixed appliance therapy.

Compare and appreciate the different tooth movements which can take place between fixed and removable appliance therapy.

Evaluate designs and design principles of functional appliance therapy.

Synthesise the modes of action of functional appliances.

Apply knowledge to construct a variety of unique fixed and functional appliances.

**Content:**

Fixed appliance techniques., Design and construction of fixed appliances., Use of attachments and their designs., Anchorage.Design and construction of functional appliances. Modes of action of functional appliances.

**Teaching & Learning Strategies:**

The course is predominantly laboratory based with a variety of student centred practical exercises. Case studies will be used to exhibit specific clinical techniques. There will also be lectures and tutorials.

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading:**

(These are basic reading text books to be supplemented by Lecture handouts and additional materials from internet and other electronic media. Books will be constantly reviewed)

Adams CP et al (6th Ed.) 1990 The design, construction and use of removable orthodontic appliances Bristol Wright

Houston WJB, Stephens CD and Tulley WJ (2nd ed) 1992 A textbook of orthodontics Bristol Wright

Houston WJB (4th Ed.) 1983 Walther's orthodontic notes. Bristol Wright

Houston WJB and Isaacson KG, (2nd Ed.) 1980 Orthodontic treatment with removable appliances Bristol Wright

Shaw WC 1993 Orthodontic and occlusal management Bristol Wright

Orthodontics Current principles and techniques Graber,vanarsdal Elsevier Morsby 2000

**Course Facilitators:**

Dr.Aisha Bataringaya BDS, M.Ch Orthodontics.( Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 3212 Dental Assignments 75CH, 5 CU**

**Description:**

Enables students to apply and extend knowledge and methods from previous modules and adapt these to new and more complex situations

**Objectives:**

By the end of the module students should be able to:

generate new theoretical and practical skills by constructing advanced exercises.synthesise and integrate knowledge and methodology developed within previous modules.

**Content**

Each student will construct two exercises, each from different disciplines within the course (conservation, orthodontics or prosthetics) that are of an advanced nature and complete a written report on the theoretical concepts and the design construction of each.

**Teaching & Learning Strategies:**

Tutorials, practical demonstrations and student centred learning activities.

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading**:

Relevant books listed within the preceding modules covering the specific topic selected by the student .

**Course Facilitators:**

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

Dr. Louis Muwazi MD (Stomatology), PhD (OMFS) Sr. Lecturer)

Dr. Charles Rwenyonyi BDS, PhD Conservative Dentistry (Sr. Lecturer)

Dr. Isaac Okullo BDS, PhD Public Health Dentistry (Sr. Lecturer)

**LT 3213 Advanced Dental Technology Studies 75 CH, 5 CU**

**Description:**

By the end of this course the student will understand a variety of advanced techniques utilised by the modern dental team and will have understood current research topics. Clinical and technical methods will be covered.

**Objectives:**

By the end of this module the student will:

Evaluate the principles and techniques associated with the design and construction of implants, both intra- and extra-oral.

Apply a knowledge of the use of CAD/CAM and its potential as an aid to treatment in the fields of dentistry and maxillo-facial restorations.synthesise the potential disturbance of patients with acquired and congenital defects.

Evaluate methods involved in the treatment and construction of appliances for maxillo-facial patients.

Apply techniques which are used to construct prostheses with alternative retention techniques.

Acquire the ability to analyse techniques used in one discipline, apply them to another and be able to form positive connections between the them (e.g. attachments, orthodontics and oral surgery, conservation and prosthetics)

Discuss the methodology associated with modern design concepts. (e.g. Rotational Path of Insertion and RPI, tooth mobility and its possible avoidance, alveolar and occlusal tooth loading.

**Content:**

Modern developments in design, Implantology, Maxillo-Facial Technology,

Computer Aided Design and Manufacture

Interdisciplinary relationships

**Teaching & Learning Strategies:**

Tutorials, practical demonstrations and student centered learning activities.

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading:**

Relevant books listed within the preceding modules covering the specific topic selected by the student .

**Course Facilitators:**

Dr.Aisha Bataringaya BDS, M.Sc Orthodontics.( Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

**DLT 3214 Perspectives on the Dental Team**

**Description:**

The courseaims to facilitate the formation of dental teams and to enable students to contribute to treatment planning.

**Objectives:**

By the end of the module students should be able to:

Evaluate the concepts associated with class, gender, race and creed, with a view to promoting team-work.create and develop attitudes and values which influence

Team-work.analyse the processes involved in the development and functions of teams.advise a dental team on the technical aspects of treatment.

**Content:**

Examination of the frameworks of design principles Attitudes, values and team-work: an examination of differences and discrimination with relevance to team-work, Teams and team-work: definition, development and function of teams, The role of the dental technologist in relation to the roles of other team members, Principles of design appropriate to treatment undertaken by a team, Contribution to decisions reached by a team involved in treatment, Construction from a prescription and assistance at clinical stages

**Teaching & Learning Strategies:**

Tutorials, practical demonstrations and student centred learning activities.

**Mode of Assessment**

Continuous assessment **40%**. - End of semester exam: MCQ’s, short answer and long assay questions and practicals **60%.**

**Suggested Reading:**

Relevant books listed within the preceding modules covering the specific topic selected by the student .

**Course Facilitators:**

Dr.Aisha Bataringaya BDS, M.Ch, Orthodontics.( Lecturer)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

Visiting Lectureres From Italy

Dr. Louis Muwazi MD (Stomatology), PhD (OMFS) Sr. Lecturer)

**APPENDIX I**

**Resource Persons**

**Staff of Makerere University, School of Health Sciences**

**Department of Dentistry**

Dr. Louis Muwazi MD (Stomatology), PhD (OMFS) Sr. Lecturer)

Dr. Charles Rwenyonyi BDS, PhD Conservative Dentistry (Sr. Lecturer)

Dr. Isaac Okullo BDS, PhD Public Health Dentistry (Sr. Lecturer)

Dr Dunstan Kalanzi BDS, M.Sc Prosthetic Dentistry (Lecturer)

Dr. Ochieng Francis BDS, M.Sc Conservative Dentistry (Lecturer)

Dr.Aisha Bataringaya BDS, M.Ch Orthodontics.( Lecturer)

Dr. Arabat Kasangaki MD. Stomatology,MDS. Oral and Maxillofacial Surgery, MSc. Peadiatric dentistry (Lecturer)

Dr. Adriane Kamulegeya DDS, M Clin Stomatology (OMFS) (Lecturer)

Dr. Annet Kutesa BDS, M.Sc Conservative Dentistry (Lecturer)

Dr. Moses Nkamba BDS, M.Sc Dental Sciences (Public Health)

Mr. Giacomo (Italian Expert C.V. attached)

Howard Besigye – Dental Technician

**Anatomy**

Dr. Buwembo W. BDS, PHD Anatomy(Lecturer)

Dr. Haruna Kiryowa BDS, M.Sc Anatomy (Lecturer)

**Mulago Hospital**

Mr. Sam Vulima, Senior Principal Dental Technologist

**Technologists from Italy**:

From time to time under the MOU Italy has commited to send over technologists from different specialities to conduct the course for short periods of time. The coordinator is Dr. L.M. Muwazi who will participate fully in the training of maxillofacial courses.

**APPENDIX II**

**TEACHING LOAD OF ACADEMIC STAFF**

| Name | Title | Qualification | Status | Current Teaching Load  (hrs/wk) | New Teaching Load  (hrs/wk) |
| --- | --- | --- | --- | --- | --- |
| Dr. Louis Muwazi MD | SL | MD (Stomatology), PhD (OMFS) | FT | 10 | 10 |
| Dr. Charles Rwenyonyi | SL | BDS, PhD Conservative Dentistry | FT | 9 | 9 |
| Dr. Isaac Okullo | SL | BDS, PhD Public Health Dentistry | FT | 9 | 9 |
| Dr Dunstan Kalanzi BDS, | L | BDS, M.Sc Prosthetic Dentistry | FT | 9 | 9 |
| Dr. Ochieng Francis | L | BDS, M.Sc Conservative Dentistry | FT | 8 | 8 |
| Dr.Aisha Bataringaya |  | BDS, M.Sc Orthodontics. | FT | 8 | 8 |
| Dr. Arabat Kasangaki | L | MD. Stomatology, MDS. Oral and Maxillofacial Surgery, MSc. Peadiatric dentistry | FT | 9 | 9 |
| Dr.Adriane Kamulegeya | AL | DDS, M Clin Stomatology (OMFS) | FT | 9 | 9 |
| Dr. Annet Kutesa | L | BDS, M.Sc Conservative Dentistry | FT | 8 | 8 |
| Dr. Moses Nkamba | L | BDS, M.Sc Dental Sciences (Public Health) | FT | 8 | 8 |
| Mr. Giacomo | PT | Higher Diploma Dental Technology | FT | 9 | 9 |
| Howard Besigye – Dental Technician | PT | Higher Diploma Dental Technology | PT | 8 | 8 |
| Dr. Buwembo W. | L | BDS, PHD Anatomy | PT | 9 | 9 |
| Dr. Haruna Kiryowa | L | BDS, M.Sc Anatomy | PT | 8 | 8 |
| Mr. Sam Vulima, Senior | SPT | Higher Diploma Dental Technology | FT | 10 | 10 |

**APPENDIX III**

**Table of teaching load and contact hours**

**Year I Semester I**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | Name of Staff | Course Name | Contact Hours per staff | Course contact hours |
| **1**  **2**  **3**  **4** | Dr Dunstan Kalanzi  Dr.Aisha Bataringaya  Mr. Giacomo Howard Besigye | DLT 1111 Introductory Techniques | 10  10  15  10 | 45 |
| **1** | Dr. Ochieng Francis | DLT 1112 Applied Dental Materials – I | 45 | 45 |
| **1**  **2** | Dr. Buwembo W.  Dr. Haruna Kiryowa | DLT 1113 Dental Anatomy and Physiology | 35  40 | 75 |
| **1**  **2** | Dr. Charles Rwenyonyi  Dr. Arabat Kasangaki MD. | DLT 1114 ICT and Current Issues | 35  40 | 75 |
| **1**  **2** | Dr. Moses Nkamba BDS,  Dr Dunstan Kalanzi BDS, | DLT 1115 Partial Denture Design | 40  35 | 75 |
| **1**  **2**  **3** | Dr Dunstan Kalanzi BDS,  Mr. Giacomo  Howard Besigye | DLT 1112 Applied Dental Materials – I | 5  20  20 | 45 |

**Year I Semester II**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | Name of Staff | Course Name | Contact Hours per staff | Course contact hours |
| **1**  **2**  **3** | Dr Dunstan Kalanzi BDS, Mr. Giacomo  Howard Besigye | DLT 1211 Metal Technology | 5  35  35 | 75 |
| **1**  **2** | Dr. Ochieng Francis Italian specialists on short visits | DLT 1212 Applied Dental materials -II | 35  35 | 75 |
|  | Dr. Moses Nkamba Dr Dunstan Kalanzi  Dr. Steven Mugabe | DLT 1213 Complete Dentures - I | 5  35  35 | 75 |
| **1**  **2**  **3**  **4** | Dr Dunstan Kalanzi BDS, Mr. Giacomo  Howard Besigye Visiting Lectureres from Italy | DLT 1214 Cast restorations | 5  10  10  50 | 75 |

**Year II Semester I**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | Name of Staff | Course Name | Contact Hours per staff | Course contact hours |
| **1**  **2**  **3**  **4** | Dr Dunstan Kalanzi Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy | DLT 2111 Metal Partial Dentures - I | 5  20  20  30 | 75 |
| **1**  **2**  **3**  **4**  **5** | Dr. Louis Muwazi Dr. Charles Rwenyonyi  Dr. Isaac Okullo  Dr. Ochieng Francis Arabat Kasangaki | DLT 2112 Clinical Observations | 15  15  15  10  10  10 | 75 |
| **1**  **2**  **3**  **4** | Dr.Aisha Bataringaya Mr. Giacomo Howard Besigye –Visiting Lectureres From Italy | DLT 2113 Orthodontics -I | 10  10  10  30 | 60 |
| **1**  **2**  **3** | Mr. Giacomo  Howard Besigye  Visiting Lecturers From Italy | DLT 2114 Work Placement | 25  25  25 | 75 |

# Year two semester two

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | Name of Staff | Course Name | Contact Hours per staff | Course contact hours |
| **1**  **2**  **3**  **4** | Dr Dunstan Kalanzi  Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy | DLT 2211 Metal Partial Dentures - II | 5  15  15  45 | 75 |
| **1**  **2**  **3**  **4** | Dr Dunstan Kalanzi BDS, Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy | DLT 2212 Complete Dentures - II | 5  15  15  45 | 75 |
| **1**  **2**  **3** | Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy | DLT 2213 Ceramics | 15  15  45 | 75 |
| **1**  **2**  **3** | Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy | DLT 2214 Practice management I | 15  15  45 | 75 |

**Year III Semester I**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | Name of Staff | Course Name | Contact Hours per staff | Course contact hours |
| **1**  **2**  **3**  **4** | Dr Dunstan Kalanzi  Mr. Giacomo  Howard besigye  Visiting Lectureres From Italy | DLT 3111 Complete Dentures - III | 10  15  15  35 | 75 |
| **1**  **2**  **3**  **4** | Dr Dunstan Kalanzi  Dr. Ochieng Francis  Mr. Giacomo Howard Besigye Visiting Lectureres From | DLT 3112 Bonded Restorations | 5  20  10  10  30 | 75 |
| **1**  **2** | Dr. Charles Rwenyonyi Dr. Isaac Okullo BDS, | DLT 3113 Research Project | 25  20 | 45 |

**Year III Semester II**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | Name of Staff | Course Name | Contact Hours per staff | Course contact hours |
| **1**  **2**  **3**  **4** | Dr.Aisha Bataringaya  Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy | DLT 3211 Orthodontics - II | 25  10  10  30 | 75 |
| **1**  **2**  **3**  **4**  **5**  **5**  **6** | Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy  Dr. Louis Muwazi  Dr. Charles Rwenyonyi Dr. Isaac Okullo BDS, | DLT 3212 Dental assignments | 20  20  5  10  10  10 | 75 |
| **1**  **2**  **3**  **4** | Dr.Aisha Bataringaya  Mr. Giacomo Howard Besigye  Visiting Lectureres From Italy | DLT 3213 Advanced Technological Studies |  | 75 |
| **1**  **2**  **3**  **4**  **5** | Dr.Aisha Bataringaya  Mr. Giacomo  Howard Besigye  Visiting Lectureres From Italy  Dr. Louis Muwazi | DLT 3214 Perspective on the Dental Team | 10  10  10  10  5 | 45 |

**APPENDIX IV**

**BUDGET**

Total Expected Income Per Semester:

24 Ugandan students – 2.5 million shillings per semester/per student 60,000,000/=

6 Foreign Students 5 million 30,000,000/=

Total 90,000,000/=

Expenditures

Central administration 65/%

Departmental Income 35% 31,500,000/=

School Administration: 10% 3,150,000/=

Supervision Allowances: 30%

Secretarial 5%

Visiting lecturers honorarium20%

Teaching materials and equipment 35%

**APPENDIX V**

**CURRICULUM VITAE**

**Italian Technician**

**First name / Surname** Giacomo Babaglioni

**Address** Trav. 1 via Bonardi, 2 - 25049 Iseo (BS) ITALY

**Telephone** +39 349 80 89 610

**E-mail** gbabaglioni@gmail.com

**Nationality** Italian

**Date of birth** 14-06-1966

**Gender** Male

**Marital status**  Single

**Education and training**

Date 1990 - 1991

Title of qualification awarded Diploma in Dental Technology.

Principal subjects Dental technology, gnathology and practice.

**Name and type of organization providing education and training**

Professional Training Centre for Industry and Handcraft -Luigi Galvani- Reggio Emilia Italy

**Level in national or international classification**

Superior secondary school diploma.

**1980 – 1984** **Title of qualification awarded** : Diploma in Dental Technology.

Principal subjects Dental technology, gnathology and practice.

**Organization providing education and training**

Professional Training Centre -Lombardia Region- Brescia Italy

**Classification:** Secondary school diploma.

**Personal competences**

Mother tongue **Italian**

Self-assessment *Understanding Speaking Writing*

*European level* Listening Listening Spoken interaction Spoken production

English C1 Advanced level C2 Advanced level C2 Advanced level C1 Advanced level C1 Advanced level

French B1 Mid level B1 Mid level B1 Mid level B1 Mid level A2 Basic level

Social skills and competences Curiosity and respect have a fundamental “will role” helping me in understanding complex situations in order to offer a concrete and responsible support. Capacity to apply good judgment in the context of

assignments given. Creative, open minded, adaptable to changes, and flexible. Experienced in representing organizations in establish, maintaining, and strengthening relationships with stakeholders, authorities, and donors. Team leadership and mentorship competences with relevant supervisory and guidance skills. Keen to train and pass on expertise to others. Support collaborators and beneficiaries to deal with social/practical issues. Strong character traits, emotional stable, capable to handle stress,

honest, and physical fit.

Organizational skills and competences Capabilities of personnel recruitment, development, and management. Ability in guarantee a timely and efficient financial resources supervision and reporting. Competences in daily office administration and labor organization in multicultural/complex environments and under difficult conditions. Problem solving and strategic planning skills. Networking activities with partners, authorities and donors. Availability to move through the area of operations. Able to implement logistics and procurement procedure in purchasing goods and services with control of all supplies chains. Participate/organize regular coordination, supervision or security meetings/workshops with collaborators, partners, authorities, and

donors. Capable to investigate study documents in order to set up reports and write project proposals.

**Technical skills and competences:** Ability in manages vehicle fleets including trucks, vehicles, and motorcycles. Able to operate with telecommunication equipments; satellite internet connection and WI-Fi networking, VHF/handsets, radios, and satellite phones. Skilled in maintenance and the repair of small electrical appliances.

Computer skills and competences Deep knowledge of office software, internet, e-mail, database, digital picture editing and printing.

Driving licence Italian and international driving license for light commercial vehicles, cars and motorcycles.

**Occupational field International Cooperation**

Date 06/2009 - 11/2009

**Position held** Assistant Programme Manager

Main activities and responsibilities Expat and local staff management. Liaison with counterparts, local authorities and international donors:

ECHO, UNICEF, WFP, FAO, and GTZ. Office administration, financial and bank accounts managing.

**Projects monitoring and reporting**. Writing project proposals.

Name and address of employer Cooperazione & Sviluppo NGO Onlus via Strada ai dossi di Le Mose, 15 -29100- Piacenza ITALY

Working place: Cooperazione & Sviluppo Karamoja Field Base, Box 87 Moroto UGANDA

Type of business or sector Boreholes drilling and maintenance. Training and WASH promotion. Logistic and procurement. Food security and nutrition. Disaster preparedness. Building construction and rehabilitation. Community service, IDP, and child protection.

**Date 09/2006 - 03/2009**

**Position held:** Dental Technician - Project Coordinator

Main activities and responsibilities Local staff coordination. Contact with counterparts and Ministries. Office administration, financial control

and bank accounts managing. Projects monitoring and reporting.

Name and address of employer Cuore Solidale Onlus via Legnano, 18 -24124- Bergamo ITALY

Working place: Andiamo Campus, Box 314 Balaka MALAWI

Type of business or sector Training and community service. Teacher of gnathology, dental materials/technology and practice. Responsible for the organisation and implementation of students’ lessons and hand books. Teachers co-ordinator.

**Date 01/2005 - 06/2006**

**Position held:** Field Officer

Main activities and responsibilities Local staff supervision. Liaison with CBOs and international donors: UNICEF, IFAD, and UNHCR.

Financial control and procurement. Manage a vehicle fleet. Security and telecommunication.

**Name and address of employer** AJDC via Passeggiata di Ripetta, 25 -00196- Roma ITALY

Working place: AJDC Ethiopia Headquarter Office, Box 1264 Addis Ababa ETHIOPIA

Type of business or sector Logistic and store control. Food security and nutrition. Agriculture support and training. Community

service, refugees, IDP, and child protection.

**Date 10/2003 - 10/2004**

**Position held:** Dental Technician - Project Manager

Main activities and responsibilities Local staff coordination. Administration and financial reports. Link with counterparts and Ministries.

Name and address of employer Africa 3000 NGO via Torretta, 14 -24125- Bergamo ITALY

Working place: Andiamo Campus, Box 314 Balaka MALAWI

Type of business or sector Training and community service. Teacher of gnathology, dental materials/technology and practice.

Responsible for the organisation and implementation of students’ lessons and hand books. Teachers co-ordinator.

**Date 02/2001 - 08/2003**

**Position held:** Dental Technician

Main activities and responsibilities Dental prosthesis design and realization.

Name and address of employer Dental Laboratory Esserre via Cacciamali, 61/l -25125- Brescia ITALY.

Type of business or sector Handcraft.

**Date 10/1999 - 12/2000**

**Position held:** Dental Technician - Project Manager

Main activities and responsibilities Teaching. Administration and financial supervision. Liaison with counterparts, Ministries and donors

Name and address of employer Comboni Centre, Box 100 Sogakope GHANA

Type of business or sector International Cooperation -sectors training, population service and prevention.

**Date 02/1997 - 08/1999**

**Position held** Sales Director

Main activities and responsibilities Coordinate a sale agents network at nationwide level. Financial administration.

Name and address of employer Editrice MEA via Giovanni XXIII, 10 -25069- Villa Carcina (BS) ITALY.

Type of business or sector Editor house -sector dental books and magazines. E-media editing, printing and distribution

**Date 02/1996 - 10/1996**

**Position held:** Dental Technician - Project Manager

Main activities and responsibilities Surveying.

Name and address of employer Comboni Centre Box 100 Sogakope GHANA

Type of business or sector International Cooperation -sector survey study, writing new project proposal.

**Date 01/1994 - 12/1995**

**Position held:** Dental Technician Entrepreneur

Main activities and responsibilities Dental prosthesis design and realization. Financial administration.

Name and address of employer Dental Laboratory Giacomo Babaglioni via Cavour, 11 -25049- Iseo (BS) ITALY.

Type of business or sector Handcraft.

Date 10/1991 - 06/1993

Position held Dental Technician - Project Manager

Main activities and responsibilities Teaching. Office administration and monetary control.

Name and address of employer Medicus Mundi Italia NGO via Martinengo da Barco, 6a -25121- Brescia ITALY.

Working place: Yekatit 12 Hospital, Box 8847 Addis Ababa ETHIOPIA.

Type of business or sector International Cooperation -sectors training, population service and prevention.

**Date 08/1986 - 08/1991**

**Position held:** Dental Technician

Main activities and responsibilities Dental prosthesis design and realization

Name and address of employer Dental Laboratory Giordani e Barbieri vicolo Bargnani, 2b -25049- Iseo (BS) ITALY.

Type of business or sector Handcraft.

**Additional information** Dr. Carlo Ruspantini, Cooperazione e Sviluppo Strada di Le Mose, 15 -29100- Piacenza ITALY

Dr. Luigi Piantoni, Cuore Solidale Onlus via Legnano, 18 -24124- Bergamo ITALY

Dr. Rosalba Galatà, AJDC via Passeggiata di Ripetta, 25 -00196- Roma ITALY

**Ugandan Technician**

## **Name:** Vulima Samuel Daneli

**Date of Birth:** 02/12/1947

**Place of Birth:** Rigbo Arua

**Nationality:** Ugandan

**Marital Status**: Married with four children

**Wife’s name:** Fidelis Vulima

**Children:** Ian Musinguzi

Doreen Kalungi

Arthur Karugaba

Daudi Amwine

**Present Residence**: Mulago

**Address:** Upper Mawanda road , Plot 202

**Telephone:** 0772 42 52 19

**E-mail address:** vulimas@gmail.com

### **Education Background**

Manchester Turner Dental School/John Dalton

Faculty of Technology: Obtained Diploma in Dental Technology (23rd July 1981).

Obtained Certificate in Dental Technology (September 1969 – June 1971)

Mulago Paramedical Dental Technology: Obtained Immediate Certificate 1967-1969

Sir Samuel Baker Secondary School: Obtained School Certificate (Cambridge) 1963-1966

Rhino Camp Primary School: Obtained Primary Leaving Certificate (1955-1962).

**Employment record**

Principal Dental Technician U3 from 13/10/1997 to date

Dental Technician grade 1, U4 from 18/7/1995 – 12/10/1997

Dental Technician grade 3 from 10/10/1971 to 17/7/1995

**Responsibilities**

1. Teaching students of Bachelor of Dental Surgery since 1997
2. Acting Principal Dental Technologist U2 since 1994, head of Department, making annual indents

**Attended Workshops**

Managing performance appraisal – Nile Hotel 2003

CTB procurement Reform training programme Colline 2002

Oral health research Promotion Nairobi University 1997