ORAL AND MAXILLOFACIAL SURGERY CURRICULUM

COLLEGE OF HEALTH SCIENCE, DEPARTMENT OF DENTISTRY

OMFS

2014

MEKELLE, ETHIOPIA
MEKELLE UNIVERSITY
COLLEGE OF HEALTH SCIENCES

DEPARTMENT OF DENTISTRY

CURRICULUM FOR SPECIALISATION CERTIFICATE IN ORAL AND
MAXILLO FACIAL SURGERY
(Clinical MD, OMFS)

NOVEMBER, 2011
MEKELLE, ETHIOPIA
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cover of curriculum</td>
<td>1</td>
</tr>
<tr>
<td>2. Table of contents</td>
<td>3</td>
</tr>
<tr>
<td>3. National workshop</td>
<td>5</td>
</tr>
<tr>
<td>4. Curriculum developer and reviewer</td>
<td>5</td>
</tr>
<tr>
<td>5. Acronyms</td>
<td>6</td>
</tr>
<tr>
<td>6. Introduction</td>
<td>7</td>
</tr>
<tr>
<td>7. Background</td>
<td>7</td>
</tr>
<tr>
<td>8. Rationale of the program</td>
<td>8</td>
</tr>
<tr>
<td>9. General and specific Objective of the program</td>
<td>9</td>
</tr>
<tr>
<td>10. Curriculum Profile</td>
<td>10</td>
</tr>
<tr>
<td>11. Graduate profile</td>
<td>10</td>
</tr>
<tr>
<td>12. Duration of the program</td>
<td>11</td>
</tr>
<tr>
<td>13. Admission requirements</td>
<td>11</td>
</tr>
<tr>
<td>14. Graduation requirements</td>
<td>11</td>
</tr>
<tr>
<td>15. Degree nomenclature</td>
<td>12</td>
</tr>
<tr>
<td>16. Methods of training and teaching, and mode of delivery</td>
<td>12</td>
</tr>
<tr>
<td>17. Graduate assessment method</td>
<td>13</td>
</tr>
<tr>
<td>18. Essential resources</td>
<td>13</td>
</tr>
<tr>
<td>19. Quality assurance</td>
<td>15</td>
</tr>
<tr>
<td>20. Methods of quality control</td>
<td>15</td>
</tr>
<tr>
<td>21. Course classification</td>
<td>16</td>
</tr>
<tr>
<td>22. Training and course breakdown</td>
<td>17</td>
</tr>
</tbody>
</table>
23. Division of workload
24. Division of responsibility
25. Students support, advising and tutoring
26. Course syllabus/outline and course description
27. Annex
National Curriculum Review Workshop

National Curriculum Review Workshop was held in 2011 in presence of Mekelle University Academic And Research Vise President, and with respected guests, developer and reviewer, from different Universities. Since the curriculum was very young in Ethiopia it costed much effort and hard work of the curriculum developer and reviewer before and after The National Workshop held at Mekelle University College Of Health Science. National curriculum reviewer appreciated the university in heavy tones for opening the program since the program is new in the country and only three Ethiopian maxillofacial surgeons and all of them are in Addis Abeba. After a lot of discussion reviewer mentioned the strength and need to be improveds in the program.

Strength were Universitys strong external relation with university abroad like SIMO and Indian University which opens the door for residents and instructors in knowledge and skill transfer in OMFS. The other strength is inclusiveness of plastic and reconstructive surgery, intensive care medicine in the curriculum. The plan to admit at least 5 residents every year is mentioned in strong side to fulfill human gap in this regard country wide.

The weak side that was not mentioned were incorporation of some common courses that might help students in research in future like Biostatistics, epidemiology etc.

At the end those ‘need to be improved’ were incorporated in the curriculum and sent to college CC to be approved

This curriculum is developed and reviewed by;

1. Profess. Mauro Orifice, SIMO
2. Profess. Alberto Falconer, SIMO
3. Dr. Wondwossen Fantaye, AAU
4. Dr. Mesfin Taessed
5. Dr. Bereket Bogale
6. Dr. Girma Oma, MFS, Korea Hospital-AA
7. Dr. Shiferaw, AAU
8. Dr. Mukesh Dhmeja, MDS,-MU
9. Dr. Lidetu Afework, Dean School of Medicine, Wolaita Sodo University
Acronyms

- SIMO, Socita Italiano maxilla odontostomatologica
- OMFS, Oral and Maxillofacial surgery
- MU, Mekelle University
- CHS, College of Health science
1. Introduction

This is a curriculum for specialization certificate in ORAL AND MAXILLO FACIAL SURGERY,(clinical MD, OMFS.) The program provides comprehensive training in all the major areas generally included within the scope of practice of an Oral and Maxillofacial Surgery. Successful candidates are expected to develop the clinical, academic and communicative skills that will provide for diversified career options. The residency is organized to provide an advancing educational experience with increasing responsibility over a four-year period in order to develop medical judgment, surgical skills, and demonstrated competence. The training program consists of formal teaching and clinical experiences on assigned rotations, patient care, didactic programs, and conferences. The final aim is reducing the serious deficit of qualified personnel in this field which until now has paid heavily/devastating effects on Ethiopia.

To this end this curriculum addresses the standards required and series of the program. The four year program is broadly categorized in to year based attachments for which the general and specific objectives to be achieved are clearly addressed.

2. BACKGROUND

Chronic diseases and related traumas are the leading health problems in all parts of the world. The rapid increase of Oral diseases throughout the world are linked to lifestyle changes, which include diets rich in sugars, widespread use of tobacco and increased consumption of alcohol. In addition to this, socio-environmental factors are highly related to oral diseases, which are the main risk for most chronic diseases as well as the lack of protective factors such as fluoride and proper oral hygiene create further public health problems globally. As with other diseases, oral diseases are a great burden on the disadvantaged and socially emarginated populations. The severe impact in terms of pain and suffering impairment and impact on the quality of life must be taken into consideration. Ethiopia, as a developing country, has an increase in oral and dental diseases which include oral cancer, oral manifestations of systemic diseases such as HIV/AIDS, benign tumours, acute and chronic infections of oral mucosal tissue, oral and maxillofacial traumas and other physical diseases in addition to caries and periodontal diseases. The access to dental services in Ethiopia is poor and scarce and the country is being further burdened by oral health problems. The significant shortage of dental health workers is particularly severe and is one of the most populated countries in Africa which has one of the lowest numbers of dentists and dental specialists in oral and maxillofacial surgeons. However, only recently, the decisive steps have been taken to establish a dental school at the Mekele University to form
graduate dental surgeons. Therefore, the Department of Dentistry in close affiliation with The College of Public Health and Medical Sciences and S.I.M.O has been opened since 2009 with the Course of Oral and Maxillo Facial Surgery for graduates in dentistry. This is part of the Postgraduate School program at The Ayder Referral Hospital, to provide services and teaching to university students. Those students who complete the four year curriculum will have the all the prerequisites and requirements of the Ethiopian Board of Maxillofacial Surgery to be appointed “Specialists” in Oral and Maxillo Facial Surgery

With the strong desire for innovation and growth, the collaboration with S.I.M.O – Eastman of Rome, the Department of Dentistry has been established. Included in the curriculum of studies is the postgraduate degree/specialisation course in Maxillofacial Dentistry, the Degree Course in Dentistry, the Degree course in Dental Hygiene and the Dental Technician Diploma Course.

The final aim is reducing the serious deficit of qualified personnel in this field which until now has paid heavily/devastating effects on Ethiopia.

The collaboration between these teams is based on, the philanthropic spirit that unites with the special futures of SIMO. The latter, being that SIMO in Italy has developed a means of “Territorial Assistance” with the use of the “Odonto-ambulances” that are essential in the production and development of cultural growth in health and in oral prevention.

The inspiration of Mekelle University to become a centre of excellence will achieve great results from this as well.

3. RATIONALE OF THE PROGRAM

Oral health has been one of the most disadvantaged health programs in Ethiopia, both in terms of facilities and qualified staff. Currently, the number of dental doctors has risen to approximately 120 including general practitioners and specialists for a population of nearly ninety million with more than half of this figure working in the capital of Addis Ababa. The number of oral and maxillofacial specialists is only two and furthermore, none of the regional health bureaus have dental experts to direct and give advice on issues related to dental health care to the regional population. Taking these factors into consideration, the current situation is insufficient to adequately address basic health care issues for the community at large.

The National Health Program aims at providing equitable Primary Health Care (PHC) to the community. Dental health is one of the essential components of PHC which has been centralised and inaccessible to the majority of the population form many years particularly in this country due to lack of human resources and facilities. The new specialised program in Oral and Maxillo-Facial Surgery is
intended to produce qualified clinical doctors and who are able to provide comprehensive health care and train other oral health professional and others.

With an average number of 5 specialists annually, the program will have the following expected outcomes in ten years from the time it is launched:

1. Each of the regional health bureaus could/will have one or more oral and maxillofacial expert to work and give advice on encountering an increased incidence or oral and maxillofacial cases and capable of planning and making decisions.
2. In the near future local and district hospitals could have one or more oral and maxillofacial surgeon.
3. Training programs in Mekelle University, Jimma University and Addis Ababa University will be opportunity to have at least two oral and maxillofacial surgeon for teaching and research.

4, GENERAL OBJECTIVE

The general objective of the program is to prepare the graduates of oral and maxillo facial surgery for an academic and/or private practice career in Oral and Maxillo Facial Surgery.

5, SPECIFIC OBJECTIVE

- To provide an advancing educational experience with increasing responsibility in order to develop medical judgment, surgical skills, and demonstrated competence.
- To reduce the serious deficit of qualified personnel in this field this until now has paid heavily/devastating effects on Ethiopia.
- Develop oral and maxillo facial surgeons who are conversant with Ethiopia’s health policies and community health needs, thereby rendering proactive, preventive, curative and rehabilitative services on diseases of local importance.
- Produce oral and maxilla facial surgeons equipped with the ability to conduct medical research, diagnose community health problems, search for causes, design solutions and involve all stakeholders including the community at large.
- Develop future oral and maxilla facial surgeons with leadership, teaching and communication skills.
- Produce professionals that nurture the attitude, values and ethics of medical professionalism and the commitment to service.
6. Curriculum Profile

The program provides comprehensive training in all the major areas generally included within the scope of practice of an Oral and Maxillofacial Surgery. The training program consists of formal teaching and clinical experiences on assigned rotations, patient care, didactic programs, and conferences. After successful completion the graduate will provide a wide range of expertise in the full scope of oral and maxillofacial surgery this include but is not limited to:-

1. Maxillofacial trauma
2. Pathologic lesion of head and neck
3. Correction of dento facial deformity
4. Reconstruction of jaws using both grafted corticocancellous bone and microvascular free flap transfer
5. TMJ surgery
6. Dento alveolar surgery with ambulatory general anesthesia
7. Cleft lip and palate repair
8. Craniofacial surgery
9. Resection of malignant tumors including neck dissection and reconstruction
10. Management of odontogenic infection
11. Microsurgery of the trigeminal nerve
12. Facial aesthetic surgery
12. Educate and teach effectively graduate and undergraduate students
13. Consult effectively with other health professionals and contribute to multidisciplinary team activities
14. Take leadership in addressing oral health issues within complex legal and ethical context

7. GRADUATE PROFILE

Successful candidates are expected to develop the clinical, academic and communicative skills that will provide for diversified career options. The residency is organized to provide an advancing educational experience with increasing responsibility over a four-year period in order to develop medical judgment, surgical skills, and demonstrated competence.
After 4 years of professional training in oral and maxillofacial surgery practice a graduate is expected to:

1. Develop the clinical, academic and communicative skills that will provide for diversified career options in the field of oral and maxillofacial Surgery
2. Demonstrate an up to date knowledge of oral maxillofacial surgery for professional development
3. Perform oral health needs assessment of a given community and plan locally appropriate and culturally acceptable intervention
4. Demonstrate ability in oral health promotion including raising awareness in oral health among decision making bodies, in general health professionals and the public
5. Assist in training fellow oral health workers of different levels
6. Demonstrate competent leadership skills in public and private health

8. DURATION OF THE PROGRAM

The residency program for oral and maxillofacial Surgery specialty is a full time program that takes a total of 4 years. Each year of training comprises of training for a total of eleven months.

9. ADMISSION REQUIREMENTS

The minimum admission requirements to join the residency program in oral and maxillofacial surgery are:

1. An individual holding DMD or DDS degree from known governmental institution.
2. A minimum of two years of clinical service
3. Medically fit and golden hands for the best carpenter
4. The applicant shall be in good state of general health
5. Max.40yrs with no gender discrimination but adjusted screening, Internal exam (oral, written.
6. The applicant must fulfill the criteria set by the Senate Legislation for graduate and admission.

10. GRADUATION REQUIREMENTS

1. The candidate must have cumulative grade point average (cGPA) of 3.0 Or above as reported by the supervisors and faculty
2. The candidate must successfully pass every attachments with in that academic year and
the final qualifying external examination
3. The candidate must pass Practical exam and demonstration, thesis defense. Less than 70% is
fail and will be repeat in 6-12 month with no 3rd chance.

11. DEGREE NOMENCLATURE

• On successful completion of the program, the Specialty certificate in Oral and Maxillo facial
surgery (Clinical MD, OMFS) (አፍውስጥ፣የመንጋጋናየፊትቀዶጥገናህክምናእስፔሻሊስት) will be awarded to candidates

12. METHODS OF TRAINING, TEACHING AND MODE OF DELIVERY

Residents will practice clinical skills under the supervision of the respective instructors. Patients
will be followed up in the clinic until surgical wards, operated and discharged. Full engagement in the
inpatient and outpatient care will be the core of training and teaching methods for oral and
maxillofacial specialty. In addition to the above mentioned methods the residents will be exposed to:

1. Core lecture series
2. Group discussion
3. Plenary session
4. Seminar presentations
5. Attend National and international conferences

Mode of Delivery will be

A) Rotating shift theoretical lessons carried out each afternoon under the guidance of the academic
staff of the respective attachment.

B) In addition to theoretical and practical lessons, the training includes:

1. Weekly departmental conferences designed to cover a broad spectrum of Oral and
Maxillofacial Surgical and medical topics, with basic sciences presented as an integral part
of the background, diagnosis and treatment.
2. Each student takes a final oral exam to determine the state of learning
3. Each resident takes the yearly OMFS SAT (Self-Assessment Tool). These examinations encourage further studies in medical and surgical sciences in clinical departments, day surgery, the operating room and recovery ward.

4. All students, in collaboration with the university teachers will be involved in research projects and scientific publications.

13. GRADUATE ASSESSMENT METHODS

At the end of each attachment there will be practical and oral examination by internal examiner. Resident who fails internal examination or fail to score a total minimum grade of ‘B’ or 70% will repeat the attachments for a duration recommended by the examiners. After completion of the repeat attachment, the resident shall take the next attachment. At the graduation the residents will have to successfully defend their research paper. Thus, reports from the supervisors should include:

1. Clinic attendance
2. Active participation
3. Group assignment
4. Individual assignment
5. Seminar presentation
6. Final comprehensive oral ex

14. ESSENTIAL RESOURCES

14.1 Structural And Technical Facility

![Diagram of Essential Resources]

MEKELLE UNIVERSITY

COLLEGE OF HEALTH SCIENCE

DEPARTMENT OF DENTISTRY

OMFS PROGRAM
14.2. Main resources AND STAFF Profile

1. Department of Dentistry, College of PHMSC, Addis Ababa, Ethiopia
2. Department of Dentistry, San Millennium Medical College, Addis Ababa
3. Italian Society of MaxilloOdontostomatology, Italy
4. Staff profile from upper mentioned college and MU Health Science College staffs are the main resources of the program.
5. Ayder referral hospital, anatomy lab, and pathology labs, monthly college conferences are the main institutional resources

Apart from the CHS staffs of all departments, as the trainee shares almost with all, the department of dentistry specifically has the following staff profile.

<table>
<thead>
<tr>
<th>No.</th>
<th>NAME</th>
<th>Profession</th>
<th>Designation/qualification</th>
<th>remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. AJIN</td>
<td>Oral and Maxillofacial</td>
<td>Asst. Prof.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VINAY</td>
<td>Surgeon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dr. Walter del Rozario</td>
<td>periodontologist</td>
<td>Asst. Prof.</td>
<td>They are all helpful for interdisplenary courses with in the department</td>
</tr>
<tr>
<td></td>
<td>ENDODONTIST</td>
<td>Asst. Prof.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Dr. Artamo Usana</td>
<td>orthodontist</td>
<td>Asst. Prof.</td>
<td></td>
</tr>
</tbody>
</table>

Maxillofacial surgery unit is mainly run by the maxillofacial surgery unit under department of dentistry

14.3. Materials and equipment

The dental department facilities:
The facilities of dental departments which include the materials, equipments and instruments are available in the dental clinic and laboratory in addition to the ward of general surgery at MU, CHS-ARH.
14.4. Space

The department of Dentistry will use it’s facility at MU-CHS,ARH for the clinical training.

14.5. Finance

For now the residents are expected to spend all their time training learning and teaching and conduct research. Therefore, there should be a minimum of **100,000 Eth Birr** each year allocated for guest support for the running cost of the transportation means including petrol.

15. QUALITY ASSURANCE

Because of the needs of the country for clinical, academic and communicative skills, constant changing and the expansion of this curriculum is needed. For this reason we also described a quality control of the resident curriculum. This Evaluation of the resident curriculum ensures the quality of the process and the improvement of any weakness during the building of qualified oral maxillofacial surgeons.

The responsibility for that process must be the residency curriculum committee who directly control and manage the evaluation of the curriculum. The committee is also responsible for the design and implementation of the evaluation programme, ensuring the collection, analysis and report of the results and revision of the curriculum.

The curriculum committee includes heads of each department, the coordinators of the academic committee and the year committee and the students’ representative of each year. The entire group will be under direction of the chairman of the curriculum committee.

15. METHODS OF QUALITY CONTROL:

Different means of control to be used include:

- A. Survey of candidates each year and academic staff.
- B. Observations in the clinical practicing and training
- C. Patients’ and community satisfaction survey
- D. Quality of the learning materials and equipments
- E. External examiners views and assessments
- F. Periodic evaluation by curriculum Evaluation Committee

15.1. Candidate clinical practice assessment
1. Progressive assessment of rounds, chair side, case reports etc…where indicated.
2. Seminars and tutorials
3. Checklists of procedures
4. Comprehensive oral and practical examinations

Residents should prepare publishable manuscript prior to completion of the program

16. Course classification

Major compulsory Courses

- Oral & Maxillofacial Surgery
- General Surgery
- Internal Medicine
- Plastic and reconstructive surgery
- Principles of maxillofacial Radiology and Diagnostic Imaging
- Anesthesia and intensive care medicine
- Implantology

Major elective courses

- Otolaryngology
- Ophthalomology
- Neuro Surgery

Supportive courses

- Head and Neck Anatomy
- General Pathology
- Oral pathology

Common courses

- Biostatics
- Epidemiology
- Research Methodology
17. TRAINING AND COURSE BREAKDOWN

First year:

The first year focuses primarily on inpatient patient care responsibilities in the pre-and post-operative periods as well as staffing the hospital outpatient minor surgery clinic. However, supervised operating experience is encouraged commensurate with the complexity of the case and the abilities of the individual resident. In addition, rotations in medicine and surgery, as described below, enhance the resident’s medical background.
First Year

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>cr.hrs</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 701</td>
<td>Head and Neck Anatomy</td>
<td>2</td>
<td>2 Weeks</td>
</tr>
<tr>
<td>PATH702</td>
<td>Pathology</td>
<td>2</td>
<td>2wks</td>
</tr>
<tr>
<td>DENT 703</td>
<td>Oral pathology</td>
<td>2</td>
<td>2 wks</td>
</tr>
<tr>
<td>DENT 704</td>
<td>Oral &amp; Maxillofacial Surgery I</td>
<td>16</td>
<td>16wks</td>
</tr>
<tr>
<td>RADI 705</td>
<td>Principles of maxillofacial Radiology and Diagnostic Imaging</td>
<td>2</td>
<td>2wks</td>
</tr>
<tr>
<td>SURG 706</td>
<td>General Surgery I</td>
<td>12</td>
<td>12 wks</td>
</tr>
<tr>
<td>ANES 707</td>
<td>Anesthesia and intensive care medicine I</td>
<td>4</td>
<td>4wks</td>
</tr>
<tr>
<td>IMED 708</td>
<td>Internal Medicine I</td>
<td>8</td>
<td>8 wks</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>56</td>
<td>56 wks</td>
</tr>
</tbody>
</table>

Second year

The second year is similar to the first, with the addition of several clinical rotations structured to allow relative autonomy under direct supervision of faculty surgeons. Additional advanced medical rotations are also performed during this year.

Second Year

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Cr. Hour</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT 801</td>
<td>Oral and Maxillofacial Surgery II</td>
<td>18</td>
<td>18 wks</td>
</tr>
<tr>
<td>OPHT 802</td>
<td>OPHTALMOLOGY</td>
<td>4</td>
<td>4 wks</td>
</tr>
<tr>
<td>SURG 803</td>
<td>General Surgery II</td>
<td>10</td>
<td>10 wks</td>
</tr>
<tr>
<td>ANES804</td>
<td>Anesthesia and intensive care medicine I</td>
<td>4</td>
<td>4wks</td>
</tr>
<tr>
<td>COMH805</td>
<td>Biostatics</td>
<td>2</td>
<td>2 wks</td>
</tr>
<tr>
<td>COMH806</td>
<td>Epidemiology</td>
<td>2</td>
<td>2 wks</td>
</tr>
<tr>
<td>IMED807</td>
<td>Internal Medicine II</td>
<td>8</td>
<td>8 wks</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>44</td>
<td>44 wks</td>
</tr>
</tbody>
</table>
Third year

The third year increases participation and responsibility in patient management, and specifically in the operating room. The residents assist on cases done with the chief residents as a team under supervision of the attending staff. They also assume responsibility for the day-to-day consultative and administrative details of the service.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Cr. Hour</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT 901</td>
<td>Oral and Maxillofacial Surgery III</td>
<td>20</td>
<td>20 wks</td>
</tr>
<tr>
<td>SURG 902</td>
<td>Neuro surgery</td>
<td>4</td>
<td>4 wks</td>
</tr>
<tr>
<td>COMH 903</td>
<td>Research Methodology</td>
<td>2</td>
<td>2 wks</td>
</tr>
<tr>
<td>SURG 904</td>
<td>Plastic and reconstructive surgery I</td>
<td>12</td>
<td>12 wks</td>
</tr>
<tr>
<td>ENT 905</td>
<td>Otolaryngology</td>
<td>8</td>
<td>8 wks</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>46</td>
<td>46 wks</td>
</tr>
</tbody>
</table>

The third-year resident has a major role in the teaching of residents and students who rotate on the service. During the third year, the chief residents, along with the program director, are responsible for the day-to-day oversight of the resident staff and coordination of the academic program. In addition, they staff all major operating room cases and are the primary participants in cosmetic facial surgery and implant clinics. The chief residents are also encouraged and funded to attend at least two

Fourth Year

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Cr. Hour</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT 1001</td>
<td>Oral and Maxillofacial Surgery IIII</td>
<td>20</td>
<td>20 wks</td>
</tr>
<tr>
<td>SURG 1002</td>
<td>Plastic and reconstructive surgery II</td>
<td>12</td>
<td>12 wks</td>
</tr>
<tr>
<td>DENT 1003</td>
<td>Implantology</td>
<td>12</td>
<td>12 wks</td>
</tr>
<tr>
<td>DENT 1004</td>
<td>Research Thesis</td>
<td>3</td>
<td>3 wks</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>47</td>
<td>47 wks</td>
</tr>
</tbody>
</table>

The fourth-year resident continues with the program as described for the third year. Greater responsibilities are given for patient care, administration, and teaching as granted by the staff on an individual basis. Increasing responsibility for planning and management of complex surgical cases occurs.

Clinical instruction and supervision of the junior graduate residents and rotating dental students assigned to the oral and maxillofacial surgery service is expected. Comprehensive
mock board examinations are given yearly encompassing the full scope of oral and maxillofacial surgery.

**RESEARCH**

All residents are expected to undertake a significant research project leading to an M.S. degree and publication. An optional degree can be arranged to include a Ph.D. Faculty mentors are readily available to assist and direct research projects as needed. Departmental funds are available to ensure project viability. Research projects span the entire scope from clinical investigations to animal and basic science endeavors.

**18. Division of workload**

The program is structured in such a way that a well-balanced division of the total workload is realized for the program as a whole, for and within the separate academic years, and for and within both semesters. The calculated workload per program above component corresponds with the time that a typical student needs to attain the required learning outcomes.

**19. Division of Responsibilities**

**A. The roles and responsibilities of the module leader (chair)**

The roles and responsibilities of the module leader (chair), course instructors i.e senior staffs are

A. supervise the respective residents

B. Patients will be followed up in the clinic until surgical wards, operated and discharged.

C. Full engagement in the inpatient and outpatient care will be the core of training and teaching methods for oral and maxillofacial specialty. In addition to the above mentioned the senior staff will prepare:

1. Core lecture series
2. Group discussion
3. Plenary session
4. Seminar presentations
5. Attend National and international conferences
6. Is responsible for all daily activities of the OMS service
7. Represents staff at all discussion and meeting related to the OMS program
8. Make assignment for the following
   a) Trainee seminars
   b) Trainee clinical assignments
   c) On-call responsibility
B. Responsibility of trainees year by year

A. Chief trainee duties
The chief trainee directly responsible to the staff and other designed affiliate site and for the following

1) Is responsible for all daily activities of the OMS service
2) Represents trainee at all discussion and meeting related to the OMS program

- Make assignment for the following
  a. Trainee seminars
  b. Trainee vacation schedule
  c. Trainee clinical assignments
  d. On-call responsibility

- Write admission note for all their surgical patients
- Is in charge of per and post operative conferences.
- Post all surgery case with the operating room
- Obtains operative permit on surgical patient

B. Junior trainee duties
The junior trainee directly responsible to the chief and the staff, and for the following

1. See all consults from other hospital service and presents these to the senior trainee or faculty
2. All scheduled admission including
   a) History
   b) Physical
   c) Admission order
   d) Procurement of necessary laboratory studies, impressions, radiograph and clinical photograph.
   e) Pre operative note on the chart prior to surgery
3. Write all orders in morning rounds.
4. First call for emergency and weekend call

C. First year trainee duties
The trainee directly responsible to the chief and junior trainee and staff, and for the following
1. See all consults from other hospital service and presents these to the senior trainee or faculty
2. All scheduled admission including
   a) History
   b) Physical
   c) Admission order
   d) Procurement of necessary laboratory studies, impressions, radiograph and clinical photograph.
   e) Pre operative note on the chart prior to surgery
3. Write all orders in morning rounds.
4. First call for emergency and weekend call

20, Student support, advising and tutoring
A system for student support, student advising and tutoring is available to students. Residents will be supervised, supported, advised by respective senior staff members daily, residents will be supported doing research and dormitory will be given for residents.

21. Course Outline/course syllabus and course descriptions

1. Basic science Review

1.1. Head and neck anatomy
PROGRAM OWNER: Mekelle University, College Of Health Science.
Department Of Anatomy
Course Title: Head and neck anatomy
Course Code: ANAT 701
Course Credits: 2 cr. Hr
Placement: 1st Year
Pre-requisite(s): None
Enrollment; Regular
Program: Graduate

Course Rationale:
The course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in Head and Neck region related to maxillofacial surgery and encourage to apply the knowledge incurred in oral and maxillofacial surgery.
**Course Description:**
This course is given during the first year of the curriculum with the basic goal of providing the students with profound knowledge of **Head and neck anatomy** and with early clinical exposure development of clinical skills relevant to the oral and maxillofacial surgery.

**Course objectives:**
The student will be able to:
1. Identify anatomy of the triangles of neck and structures of the neck
2. Describe Cranial and facial bones and its surrounding soft tissues with its applied aspects in maxillofacial injuries.
3. Identify Muscles of head and neck.
4. Distinguish Arterial supply, venous drainage and lymphatic of head and neck
5. Describe Congenital anomalies of the head and neck.
Surgical anatomy of the cranium.
6. Describe Anatomy and its applied aspects of salivary glands, pharynx, thyroid and parathyroid gland larynx, trachea and esophagus.
7. explain Tooth eruption, morphology, and occlusion
8. Surgical anatomy of the nose.
9. The structure and function of the brain including surgical anatomy of intra cranial venous sinuses.
10. Autonomic nervous system of head neck.
12. describe Development of the face. Paranasl sinuses and associated

**Course contents:**

Surgical anatomy of the scalp temple and face.
1. anatomy of the triangles of neck and structures of the neck - 2hrs
2. Cranial and facial bones and its surrounding soft tissues with its applied aspects in maxillofacial injuries. - 2hrs
3. Muscles of head and neck. - 3hrs
4. Arterial supply, venous drainage and lymphatic of head and neck - 3hrs
5. Congenital anomalies of the head and neck. - 2hrs
6. Surgical anatomy of the cranium. - 2hrs
7. Anatomy of the tongue and its surrounding structures. - 2hrs
8. Surgical anatomy of the temporal and infratemporal regions. - 2hrs
9. Anatomy and its applied aspects of salivary glands, pharynx, thyroid and parathyroid gland larynx, trachea and esophagus. - 2hrs
10. Tooth eruption, morphology, and occlusion - 2hrs
11. Surgical anatomy of the nose. - 1hrs
12. The structure and function of the brain including surgical anatomy of intra cranial venous sinuses. - 2hrs
13. Autonomic nervous system of head neck. - 1hrs
14. Functional anatomy of mastication. Deglutition, speech respiration and circulation. - 1hrs
16. TMJ: surgical anatomy and functions. - 3hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semester. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:

- Attendance .................................................. 5%
- Weekly assignments ...................................... 20%
- Active participation ................................. 10%
- seminar presentations .............................. 15%
- Final Examination .................................... 50%

Students workload
Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:
1. Be active to work individually and in group.
2. Cooperate to learn with colleagues.
3. Share group tasks, experiences and presentations.
4. Handle all tasks through independents study and cooperative learning.
5. Take accountability for all tasks.
6. Use time wisely.

**Grading policy**

Grading System for the course

**Grade: A.................................85-100,**

**B........................................70-84,**

**C.................................60-69,**

**D........................................50-59**

CJ=Cannot judge,
NA-Not Applicable

**Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the exam**

**INDICATIVE RESOURCES**

**Required equipment and supplies**

**Laboratory Coats for dissecting**

Each student should wear a lab coat in the Gross Anatomy laboratory. We make lab coats available during the Introduction to Anatomy session. Wear your name tag on your laboratory coat so your department and classmates know who you are.

**Gloves for handling**

Gloves are needed for the gross anatomy laboratory. Gloves protect your hands from skin irritation and absorption of hazardous materials, e.g. formaldehyde. All students must wear proper gloves while handling cadavers and prosecutions. Boxes of disposable gloves will be available in the Gross Anatomy laboratory. Other more permanent gloves can be brought in by students at their own cost.

**Ancillary Texts, Equipment and Resources**

The medical bookstore area at the CHS has the following anatomy texts recommended for this course. As your knowledge and appreciation of anatomy increase, you may want to consider purchasing additional learning resources, including appropriate software and
Reference books
5) Snell, S.R. Clinical Anatomy. 7th Edn. Lippincott Williams and Wilkins
2, PATHOLOGY

PROGRAM OWNER: Mekelle University, College Of Health Science.
Preclinical department, pathology unit

Course Title: Pathology
Course Code: PATH702
Course Credits: 2 Cr. Hr
Semester/Session: year one
Pre-requisite(s): none
Enrollment: regular
Program: Graduate

Course Rationale:
The course is intended to stimulate and sharpen the previous knowledge, Skill and attitude of the residents in General pathology and, enhance and build residents knowledge, skill and attitude with early clinical exposure and development of clinical skills relevant to the general human pathology

Course Description: This course is offered in Year 1 of the curriculum with the basic goal of providing the students with profound knowledge of the pathology and with early clinical exposure the development of clinical skills relevant to the general human pathology.

Course objective:
The students will be able to
1. Describe the major pathologic processes and the specific biological Alterations which they cause.
2. Distinguish gross and microscopic alterations of the specific system that Occur in major pathologies and conditions.
3. describe Inflammation, Repair and regeneration necrosis and gangrene
4. describe and explain Homeostasis, Shock, Chromosomal abnormalities, Hypersensitivity, Neoplasia

Course contents:

1. Inflammation - 5hrs
   - Repair and regeneration necrosis and gangrene
   - Role of complement system in acute inflammation
   - Role of complement acid and its metabolites in acute information.
   - Growth factors in acute inflammation
   - Role of O2 in cell growth and intercellular signaling of cell surface receptors
   - Role of NSAIDs in information.
   - Cellular changes in radiation injury and its manifestations

1. Homeostasis - 5hrs
   - Role of endothelium in thrombogenises
- Arterial and venous thrombi.
- Disseminate coagulation (D.I.C)

2. **Shock** - 10hrs
   - Pathogenesis of hemorrhagic neurogenic, septic, carcinogenic shocks.
   - Circulatory disturbances ecchymosis hyperemia venous congestion edema, infarction.

3. **Chromosomal abnormalities** - 3hrs
   - Marfans syndrome Ehlers’ Danlose Syndrome, Fragile X Syndrom

4. **Hypersensitivity** - 4hrs
   - Anaphylaxis type ll. Hypersensitivity, type lll. Hypersensitivity and cell mediated reaction and its clinical importance, and systemic lupus erythematosus
   - Infection and infective granulomas

5. **Neoplasia** - 5hrs
   - Classification of tumors
   - Carcinogenesis and carcinogenic-chemicals, viral and microbial
   - Grading and staging of tumor angiogenesis, para neoplastic syndrome. Spread of tumors.
   - Characteristics of benign and malignant tumors.

**Course Delivery Methods:**
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
ASSESSMENT CRITERIA:

Students will be assessed continuously on the basis of:

- Attendance ........................................5%
- Weekly assignments .................................20%
- Active participation .................................10%
- Seminar presentations ...............................15%
- Final Examination ..................................50%

Students workload

Students must attend at least 80% of the course to sit for exam

- Students are supposed to do each and every assignment within the given deadline
- Cheating and plagiarism is strictly forbidden

Teacher’s Role

Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module.
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities.

Students’ Responsibility

Students are responsible for both their success and failure. Hence, they need to:

12. Be active to work individually and in group.
13. Cooperate to learn with colleagues.
14. Share group tasks, experiences and presentations.
15. Handle all tasks through independents study and cooperative learning.
16. Take accountability for all tasks.
17. Use time wisely.

Grading policy

Grading System for the course

Grade: A............................................85-100,
       B............................................70-84,
       C..........................................60-69,
       D..........................................50-59
       CJ=Cannot judge,
Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the exam

References:


3, ORAL PATHOLOGY

PROGRAM OWNER: Mekelle University, College Of Health Science.
Department Of Dentistry

Course Title: Oral Pathology
Course Code: DENT 703
Course Credits: 2 Cr. Hr
Semester/Session: year one
Pre-requisite(s): none
Enrollment: regular
Program: Graduate
Course rationale:
The course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in oral pathology related to maxillofacial surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery.
Course Description:
This course is offered in Year 1 of the curriculum with the basic goal of providing the students with profound knowledge of the oral pathologies and with early clinical exposure the development of clinical skills relevant to the oral and maxilla facial surgery.

Course objectives:
The students will be able to:
- Explain the Developmental disturbances of oral and para oral structures
- Describe Regressive changes of teeth.
- Distinguish Bacterial, viral and mycotic infections of oral cavity.
- Describe Dental caries diseases of pulp and pericapial tissues. Physical and chemical injuries of the oral cavity.
- Explain Oral manifestations of metabolic and endocrinal disturbances
- Describe Diseases of jaw bones and TMJ. Disease of blood and blood forming organs in relation of oral cavity

Course contents:
- Developmental disturbances of oral and para oral structures - 4hrs
- Regressive changes of teeth. - 3hrs
- Bacterial, viral and mycotic infections of oral cavity. - 5hrs
- Dental caries diseases of pulp and pericapial tissues. - 4hrs
- Physical and chemical injuries of the oral cavity. - 3hrs
- Oral manifestations of metabolic and endocrinal disturbances- 5hrs
- Diseases of jaw bones and TMJ. - 5hrs
- Disease of blood and blood forming organs in relation of oral cavity. - 3hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,
1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:
- Attendance ....................................................5%
- Weekly assignments .................................20%
- Active participation .................................10%
- seminar presentations ............................15%
- Final Examination .................................50%
Students workload

Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:
- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:
18. Be active to work individually and in group.
19. Cooperate to learn with colleagues.
20. Share group tasks, experiences and presentations.
21. Handle all tasks through independents study and cooperative learning.
22. Take accountability for all tasks.
23. Use time wisely.

Grading policy
Grading System for the course

Grade: A......................................85-100,
B..............................................70-84,
C..............................................60-69,
D..............................................50-59
CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the exam

REFERENCES
1. ORAL & MAXILLOFACIAL PATHOLOGY SECOND EDITION, NEVILLE 2002


4. BIOSTATICS

PROGRAM OWNER: Mekelle University, College Of Health Science.
School Of public health

Course Title: Biostatistics
Course Code: COMH805
Course Credits: 2 Cr. Hr
Semester/Session: year two
Pre-requisite(s): none
Enrollment; regular
Program: Graduate

Course rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the oral and maxillofacial surgery residents in biostatistics related to maxillofacial surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery.

Course Description:
This course is offered in Year 2 of the curriculum with the basic goal of providing the students with profound knowledge of the biostatistics and with early clinical exposure the development of research proposals and knowledge & skills relevant to the oral and maxilla facial surgery.

Course objectives:
After completing this chapter, the residents will be able to:
1. Define Statistics and Biostatistics
2. Enumerate the importance and limitations of statistics
3. Define and identify the different types of data and understand why we need to classify variables
4. Explain and discuss Methods of Data collection, Organization and presentation
5. Explain Summarizing and analyzing data
6. Explain and discuss Demographic Methods and Health Services Statistics
7. Explain and discuss Elementary Probability and probability distribution
8. Discuss and understand Estimation
9. Explain and discuss Hypothesis Testing
10. Explain and discuss Correlation and Regression

Course Contents
1. Introduction of Statistics and Biostatistics- 4hrs
2. The importance and limitations of statistics- 2hrs
3. Different types of data and classifying variables- 4hrs
4. Methods of Data collection, Organization and presentation- 2hrs
5. Summarizing and analyzing data- 3hrs
6. Demographic Methods and Health Services Statistics- 4hrs
7. Elementary Probability and probability distribution- 3hrs
8. Estimation - 3hrs
9. Hypothesis Testing- 3hrs
10. Correlation and Regression- 4hrs
Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:

- Attendance ...........................................10%
- Weekly assignments ..............................20%
- Active participation ..............................20%
- Final Examination ..............................50%

Students workload
Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:

24. Be active to work individually and in group.
25. Cooperate to learn with colleagues.
26. Share group tasks, experiences and presentations.
27. Handle all tasks through independents study and cooperative learning.
28. Take accountability for all tasks.
29. Use time wisely.

**Grading policy**

Grading System for the course

**Grade: A........................................85-100,**

B........................................70-84,

C........................................60-69,

D........................................50-59

CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the exam

**References**

6. EPEDIMIOLOGY
PROGRAM OWNER: Mekelle University, College Of Health Science.
School Of public health

Course Title: Epidemiology
Course Code: COMH806
Course Credits: 2 Cr. Hr
Semester/Session: year two
Pre-requisite(s): none
Enrollment: regular
Program: Graduate

Course rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in epidemiology related to maxillofacial surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery.

Course Description:
This course is offered in Year 2 of the curriculum with the basic goal of providing the students with profound knowledge of the epidemiology. This course will familiarize the students about the definition of words which are commonly used in Epidemiology, levels of prevention; Infectious diseases Epidemiology; measuring morbidity and mortality; sources and method of data collection; Epidemic investigation and management; and Surveillance.

Course objectives:
After completing this chapter, the residents will be able to:
1. Understand Introduction to Epidemiology and Disease Causation
2. Explain Levels of prevention and Concepts in the infectious diseases
3. Describe Descriptive Epidemiology and Measurements of Morbidity and Mortality
4. Describe Sources of Data and methods of data collection
5. Explain and understand Epidemic Investigation and Management AND Epidemiological Surveillance
6. Discuss measures of occurrence, effect and measures ao association and concepts of interaction.
7. Discuss model-based estimation of incidence, prevalence, and standardized (marginal) measures of effect, including inverse-probability-weighting and confounder-scoring methods.

Course contents:
1. Introduction to Epidemiology and Disease Causation- 3hrs
2. Levels of prevention and Concepts in the infectious diseases- 3hrs
3. Descriptive Epidemiology and Measurements of Morbidity and Mortality- 5hrs
4. Sources of Data and methods of data collection- 2hrs
5. Epidemic Investigation and Management and Epidemiological Surveillance- 4hrs
6. Measures of Occurrence, Effect and Measures of Association-4hrs
7. Concepts of Interaction=3hrs
8. Fundamentals of Epidemiologic Data Analysis- 3hrs
9. Introduction to Categorical Statistics- 3hrs
10. Introduction to Regression Model and Modeling-3hrs

**Course Delivery Methods:**
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation

**ASSESSMENT CRITERIA:**
Students will be assessed continuously on the basis of:

- *Attendance* ..................................................10%
- *Weekly assignments and seminar* ..............20%
- *Active participation* ..........................20%
- *Final Examination* ..........................50%

**Students workload**
Students must attend at least 80% of the course to sit for exam

- Students are supposed to do each and every assignment within the given deadline
- Cheating and plagiarism is strictly forbidden

**Teacher’s Role**
Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
Provide several alternative routes to task completion and involve all students in the instructional activities.

**Students’ Responsibility**

Students are responsible for both their success and failure. Hence, they need to:

1. Be active to work individually and in group.
2. Cooperate to learn with colleagues.
3. Share group tasks, experiences and presentations.
4. Handle all tasks through independents study and cooperative learning.
5. Take accountability for all tasks.
6. Use time wisely.

**Grading policy**

Grading System for the course

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>85-100</td>
</tr>
<tr>
<td>B</td>
<td>70-84</td>
</tr>
<tr>
<td>C</td>
<td>60-69</td>
</tr>
<tr>
<td>D</td>
<td>50-59</td>
</tr>
<tr>
<td>CJ</td>
<td>Cannot judge,</td>
</tr>
<tr>
<td>NA</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the exam.

**Reference**

3. Fletcher M. Principles and practice of Epidemiology.
4. Barker DJP. Practical Epidemiology. 3rd edition
5. Epidemiology in community health. Jane McCusker series
12. Hennekens CH and Buring JE. Epidemiology in Medicine. Little, Brown and Company Boston/Toronto. USA
RESEARCH METHODOLOGY

PROGRAM OWNER: Mekelle University, College Of Health Science.
School Of public health

Course Title: Research Methodology

Course Code: COMH903
Course Credits: 2 Cr. Hr
Semester/Session: year Three
Pre-requisite(s): none
Enrollment; regular
Program: Graduate

Course rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, skill and attitude of the residents in research methodology related to health sciences especially maxillofacial surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery.

Course Description: this course is intended to give to the learner a proper knowledge, skill and attitude in problem identification, planning implementation and evaluation of research undertakings.

COURSE OBJECTIVES:
On successful completion of this course, Residents will be able to:
• Understand and explain the concepts, purpose and type of research in Medical sciences.
• Determine when research in Medical sciences should be conducted and then choose appropriate research methodology,
• Understand the relationship between theory and research,
• Formulate research problems and hypothesis in the area of Medical sciences and other fields of study,
• Prepare standard research project proposals,
• Plan and conduct advanced research in Medical sciences particularly maxillofacial surgery and other various fields of study using different methods.
• To be familiar of the channels of communicating the results of researches that deal with public health issues.

Course Contents:
1. The concepts, purpose and type of research in Medical sciences - 5hrs
2. research methodology - 6hrs
3. Relationship between theory and research, -5hrs
4. How to Formulate research problems and hypothesis in the area of Medical sciences and other fields of study- 4hrs
5. How Prepare standard research project proposals- 4hrs
6. How to Plan and conduct advanced research in Medical sciences particularly maxillofacial surgery and other various fields of study using different methods. - 5hrs
7. Channels of communicating the results of researches that deal with public health issues. - 3hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,
1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:
➢ Attendance ........................................10%
➢ Weekly assignments and seminars.............20%
➢ Active participation ................................20%
➢ Final Examination .................................50%

Students workload
Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:
➢ Entertain students input to reach the realistic goals.
➢ Inform students about the realistic objectives of the course.
➢ Organize the contents of the course or module appropriately.
➢ Begin on time and punctuality throughout the module
➢ Allocate the time appropriately to master the lesson and to accomplish it successfully.
➢ Emphasize time devotion to academics.
➢ Treat the course or module seriously and respectfully.
➢ Maintain a quick lesson pace.
➢ Plan daily tasks at helping students reach the realistic goals.
➢ Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
➢ Support students to approach all tasks.
➢ Provide several alternative routes to task completion and involve all students in the instructional activities

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:
1. Be active to work individually and in group.
2. Cooperate to learn with colleagues.
3. Share group tasks, experiences and presentations.
4. Handle all tasks through independents study and cooperative learning.
5. Take accountability for all tasks.
6. Use time wisely.

**Grading policy**

Grading System for the course

**Grade:**
- A.................................85-100,
- B.................................70-84,
- C.................................60-69,
- D.................................50-59

CJ=Cannot judge,
NA-Not Applicable

 Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the exam

**REFERENCES**

Principles of maxillofacial Radiology and Diagnostic Imaging

PROGRAM OWNER: Mekelle University, College Of Health Science.
Department Of Radiology
Course Title: Principles of maxillofacial Radiology and Diagnostic Imaging

Course Code: RADI705
Course Credits: 2 Cr. Hr
Semester/Session: year One
Pre-requisite(s): none
Enrollment; regular
Program: Graduate

Course rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in Principles of maxillofacial Radiology and Diagnostic Imaging related to maxillofacial surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery.

Courses description:
It is a course in which the students will learn the art of recording images of dental structure by using roentgen rays or x-rays. Here they will make content with general radiology and dentistry.

Courses Objective:
Make the students have the know lège of General radiologie and have skill of taking extra and intra oral and maxillo-facial x-rays.

Course Content:
1) Scope of the subject and history of origin.
2) Physics of radiation: 3hrs  (a) Nature and type of radiations (b) source of radiations Production of x-rays (d) properties of x-rays (e) Compton effect (f) Photoelectric effect Radiation Measuring units.
3) Biological effects of radiation
4) Radiation safety and protection measures
5) Principles of image production
6) Radiographic techniques
   i) Intra –Oral: a) Periapical radiographs (Bisecting and parallel techniques (b) Bite wing radiographs (e) Occlusal radiographs
   ii) Extra-Oral a) Lateral projections for Zygomatic arches
   iii) Specialized techniques: a) Sialography b) Xeroradiography c) Tomography
7) Factors in production of good radiographs
(a) K.V.P, and mA of x-ray machine b) Filters (c) Collimations (d) Intensifying screens (e) Grids (f) x-ray films (g) Exposure time (h) Techniques (i) Dark room Developer and fixer solutions (k) film processing – 4hrs

8) Radiographic normal anatomical landmarks
9) Faculty radiographs and artifacts in radiographs
10) Interpretation of radiographs in various abnormalities of teeth, bones and other orofacial tissues.
11) Principles of radiotherapy of oro-facial malignancies and complications or radiotherapy
12) Contrast radiography and basic knowledge or radio-active isotopes.
13) Radiography in Forensic Odontology – Radiographic age estimation and post-Moreno radiographic methods.

**PRACTICALS / CLINICALS:**

1. Students are trained to arrive at proper diagnosis by following a scientific and systematic procedure of history taking and examination of the orofacial region. Training is also imparted in management wherever possible. Training also shall be imparted on saliva diagnostic procedures.

2. In view of the above each student shall maintain a record of work done, which shall be evaluated for marks at the time of university examination.

3. The following is the minimum of prescribed work for recording

   a) Recording of detailed case histories of interesting cases .................. 10
   
   b) Intra – oral radiographs (Periapical, bitewing, occlusal .................... 25

   c) Saliva diagnostic check as routine procedure.

**Course Delivery Methods:**
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation

ASSESSMENT CRITERIA:

Students will be assessed continuously on the basis of:

- Attendance ................................................... 5%
- Weekly assignments ................................. 20%
- Active participation ................................. 10%
- Seminar presentations .............................. 15%
- Final Examination ................................. 50%

Students workload

Students must attend at least 80% of the course to sit for exam

- Students are supposed to do each and every assignment within the given deadline
- Cheating and plagiarism is strictly forbidden

Teacher’s Role

Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module.
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities.

Students’ Responsibility

Students are responsible for both their success and failure. Hence, they need to:

1. Be active to work individually and in group.
2. Cooperate to learn with colleagues.
3. Share group tasks, experiences and presentations.
4. Handle all tasks through independents study and cooperative learning.
5. Take accountability for all tasks.
6. Use time wisely.

Grading policy

Grading System for the course

Grade: A-------------------------------85-100,
B-------------------------------70-84,
C-------------------------------60-69,
D.................................50-59
CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

References
- Radiologic anatomy
- Applied anatomic radiology
- Text book of oral radiology - White & furrow
- Text book of oral radiology – Arthur
- Clinical Radiology Made ridiculously simple Hugue Ouellette, M.D.Patrice Tetreault, M.D. 2000

II) The didactic clinical program:-

Course Description:
The didactic program will emphasize special attention to asepsis and antisepsis, microbiological principles, rational use of antibiotics infections like synergistic gangrene and diabetic foot infection, Hepatitis and HIV infection and cross infection. Airway obstruction, management, anatomy of the airway, principles of keeping the airway patent, mouth to mouth resuscitation, oropharyngeal airway, Endotracheal intubation cricothyroidectomy, tracheostomy, anesthesia, stages of anesthesia, pharmacology of inhalation, intravenous and regional anesthesia and anesthetics, muscle relaxants. Facial pain: facial palsy and nerve injuries Pain control, acute and chronic pain, cancer and non-cancer pain, patent controlled analgesia. General patient management –competence in physical assessment of patients for surgery, competence in evaluation of patients presenting with acute injury, particularly to maxillofacial region. Competence in the evaluation of management of patients for anesthesia. Clinical oral surgery, all aspects of dento alveolar surgery. Per-prosthetic surgery a wide range of surgical reconstructive procedures involving their hard and soft tissues of the edentulous jaws. Temporomandibular joint disorders, TMJ disorders and their sequelae need for expert evaluation assessment and management. Diagnostic and therapeutic arthroscopic surgery procedures. Tissue grafting, understanding of the biological mechanisms involved in autogenous and heterogeneous tissue grafting Reconstructive oral and maxillofacial surgery, hard tissue and soft tissue reconstruction. Cyst and Tumors of head and neck region and their management, including principles of tumor surgery, giant cell lesions of jaw bones, fibro osseous lesions of jaw. Neurological disorders of maxillofacial region-diagnosis and management of trigeminal neuralgia, MPDS, Bells palsy, Frey’s syndrome, Nerve injuries. Maxillofacial trauma basic principles of treatment primary care, diagnosis and management of hard and soft tissue injuries, comprehensive, management including poly-trauma patients. Assessment of trauma-multiple injuries patients/closed abdominal and chest
injuries/penetrating injuries, pelvic fractures, urological injuries, and vascular injuries. Orthognathic surgery the trainee must be familiar with the assessment and correcting of jaw deformities.

Laser surgery, the application of laser technology in the surgical treatment of lesions amenable to such therapy. Distraction osteogenesis in maxillofacial region. Cryosurgeries principles. The application of cryosurgery in the surgical management of lesions amenable to such surgeries. Cleft lip and palate surgery, detailed knowledge of the development of the face, head and neck, diagnosis and treatment planning, Current concepts in the management of cleft lip and palate deformity, knowledge of nasal endoscopy and other diagnostic techniques in the evaluation of speech and hearing, concept of multi-disciplinary team management. Aesthetic facial surgery. Detailed knowledge of structures of facial neck including skin and underlying soft tissues, diagnosis and treatment planning of deformities and conditions affecting facial skin, underlying facial muscles. Bone eyelid, external ear etc.. Surgical management of post acne scaring, face lift blepharoplasty, otoplasty, facial bone recountouring etc. Craniofacial Surgery, basic knowledge of developmental anomalies of face, head and neck, basic concepts in the diagnosis and planning of various head and neck anomalies including facial cleft, craniosynostosis syndromes etc. Current concepts in the management of craniofacial anomalies. Head and neck oncology, understanding of the principles of management of head and neck oncology including various per cancerous lesions. Experience in the surgical techniques of reconstruction following ablative surgery. Micro Vascular surgery Implantology, principles, surgical procedures for insertion of various types of implants Maxillofacial radiology and radio diagnosis. Other diagnostic methods and imaging techniques.

ANESTHESIA AND INTENSIVE CARE MEDICINE

PROGRAM OWNER: Mekelle University, College Of Health Science.

Department Of Anesthesia

Course Title : Anesthesia And Intensive Care Medicine

Course Code : ANES 707 and ANES804

Course Credits: 4 Cr. Hr

Semester/Session: year one Anes 707 and year two Anes804

Pre-requisite(s): anes707 is prerequeisite for anes 804

Enrollment; regular

Program: Graduate

Course rationale:

This course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in anesthesia and intensive care medicine related to maxillofacial surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery.

Course Description:

This course is offered in Year 1 and 2 of the curriculum with the basic goal of providing the students with profound knowledge of the anesthesia and intensive care medicine and with early clinical exposure the development of clinical skills relevant to the oral and maxilla facial surgery.

Course objectives:
after successful completion of this course residents will be able to:

18. Explain asepsis and antisepsis, microbiological principles, rational use of antibiotics infections like synergistic gangrene and diabetic foot infection, Hepatitis and HIV infection and cross infection.

19. Understand and describe Airway obstruction, management, anatomy of the airway, principles of keeping the airway patent, mouth to mouth resuscitation, oropharyngeal airway, Endotracheal intubation cricothyroidectomy, tracheostomy, anesthesia, stages of anesthesia, pharmacology of inhalation, intravenous and regional anesthesia and anesthetics, muscle relaxants.


21. Discuss General patient management – competence in physical assessment of patients for surgery, competence in evaluation of patients presenting with acute injury, particularly to maxillofacial region.

22. Evaluate Competence in the evaluation of management of patients for anesthesia.

Course contents

1. Asepsis and antisepsis, microbiological principles, rational use of antibiotics infections like synergistic gangrene and diabetic foot infection, -4hrs

2. Hepatitis and HIV infection and cross infection. - 5hrs

3. Airway obstruction, management, anatomy of the airway, principles of keeping the airway patient, mouth to mouth resuscitation, 10hrs

4. Oropharyngeal airway, Endotracheal intubation cricothyroidectomy, tracheostomy, anesthesia, stages of anesthesia, -5hrs

5. Pharmacology of inhalation, intravenous and regional anesthesia and anesthetics, muscle relaxants, -5hrs

6. Facial pain: facial palsy and nerve injuries Pain control, acute and chronic pain, cancer and non-cancer pain, patient controlled analgesia, - 5hrs

7. General patient management – competence in physical assessment of patients for surgery, competence in evaluation of patients presenting with acute injury, particularly to maxillofacial region, - 20hrs

8. Competence in the evaluation of management of patients for anesthesia - 10hr

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,

2. case study,

3. group discussion

4. Individual assignment

5. Seminar presentation

6. Practical attachment

7. Round
ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:

- Attendance ........................................ 5%
- Weekly assignments ............................... 20%
- Active participation .............................. 10%
- Seminar presentations ........................... 15%
- Final Examination ................................ 50%

Students workload
Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module.
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities.

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:

7. Be active to work individually and in group.
8. Cooperate to learn with colleagues.
9. Share group tasks, experiences and presentations.
10. Handle all tasks through independents study and cooperative learning.
11. Take accountability for all tasks.
12. Use time wisely.

Grading policy
Grading System for the course

Grade: A.............................. 85-100,
       B.............................. 70-84,
       C.............................. 60-69,
       D.............................. 50-59
CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

References

INTERNAL MEDICINE

PROGRAM OWNER: Mekelle University, College Of Health Science.
Department Of internal medicine

Course Title- internal medicine I AND II
Course code – IMed 708 At year I and IMED 807 AT YEAR 2 RESPECTIVELY
Credit Hours- 8 weeks/CR. Hr EACH
Placement year I and II
Pre-requisite(s): IMED I is prerequisite for IMED II
Enrollment; regular
Program: Graduate

Course rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, skill and attitude of the residents in internal medicine and encourage to apply the knowledge obtained in oral and maxillofacial surgery practice locally and national level.
Course Description:
This is a basic and advanced of the course commonly referred to as’ Internal Medicine attachment’ Attached at year 1 and 2. It deals with the principles & practice of internal medicine as both a science and an art. The course subject matter will integrate the etiology, epidemiology, clinical manifestations and physical findings, pathology & path physiology of health problems in adults and emphasis is made on skills of Suggesting, selection, performance and interpretation of laboratory studies appropriate and relevant to specific clinical problems. Student should also be enabled to suggest and select relevant treatment modalities, monitor response and the untoward effects of such interventions. During this phase student should be exposed to the principals and practice of emergency situations in Internal Medicine.

COURSE OBJECTIVE:
The students will be able to:
- integrate the etiology, epidemiology, clinical manifestations and physical findings, pathology & path physiology of health problems
- Acquire skills of Suggesting, selection, performance and interpretation of laboratory studies appropriate and relevant to specific clinical problems.
- Suggest and select relevant treatment modalities, monitor response and the untoward effects of such interventions.

Course content
The course will include
Two weeks Physical diagnosis attachment at year I
1. Lectures on: malaria, typhoid fever, typhus and relapsing fever, CNS infections, schistosomiasis and Filariasis, interstinal parasitic deases, leshmaniasis, STIs, HIV/AIDS,leprosy, tuberculosis,congestive heart failure and its management-9hrs
   1. alular heart diseases, rheumatic fever and cardiomyopathy, infective endocarditis, pericarditis and Myocarditis, ischemic heart disease, hypertension and its management -9hrs
   2. pneumonia, bronchial Asthma, COPD, suppurative lung diseases, pleurisy and pulmonary neoplasms, fluid and electrolyte disturbances, acid base disorders and its management.-20hrs
2. Glomerulonephritis, nephritic syndrome, acute renal failure, chronic renal failure and its management-10hrs
3. - UTI, diabetes mellitus, diseases of the adrenal gland, diseases of the thyroid and its management-20hrs
4. diseases of the pituitary gland, dizziness and disturbances of consciousness and its management-10hrs
5. Circulatory disturbances of the brain, headache and facial pain, seizure disorders and its management-10hrs
6. Diseases of the spinal cord, extrapyramidal disorders and peripheral neuropathy and its management-10hrs
7. Anaemia, leukemias, lymphoma, myeloproliferative disorders, bleeding disorders and its management-10hrs
11. peptic ulcer disease, malabsorption syndromes and pancreatic diseases, hepatitis, cirrhosis and hepatoma, connective tissue disorders (I & II), and its management-10hrs
12. Management of patient with sepsis and septic shock-10hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
6. Practical attachment
7. Round

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:

- Attendance .............................................5%
- Weekly assignments .................................20%
- Active participation ...............................10%
- seminar presentations .............................15%
- Final Examination .................................50%

Students workload
Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
➢ Support students to approach all tasks.
➢ Provide several alternative routes to task completion and involve all students in the instructional activities

Students’ Responsibility

Students are responsible for both their success and failure. Hence, they need to:

13. Be active to work individually and in group.
14. Cooperate to learn with colleagues.
15. Share group tasks, experiences and presentations.
16. Handle all tasks through independents study and cooperative learning.
17. Take accountability for all tasks.
18. Use time wisely.

Grading policy

Grading System for the course

Grade:  
A..................................................85-100,
B..................................................70-84,
C..................................................60-69,
D..................................................50-59
CJ=Cannot judge,
NA-Not Applicable

Residents who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

References

1. Harrison's Principles of Internal Medicine, 18e, volume 1 and 2, 2012
2. Text book of medicine – Davidson
3. Clinical practice of medicine – Hutchinson
6. Bandelt HJ et al: Exaggerated status of "novel" and "pathogenic" mtDNA sequence variants due to inadequate
GENERAL SURGERY

PROGRAM OWNER: Mekelle University, College Of Health Science.

Department Of Surgery

Course Title- General surgery I and II

Course No – SURG 706 and SURG 803

Credit Hours- Twelve weeks/cr. Hrs each

Placement: year I surg 706 and surg 803 at year II

Pre-requisite(s): I is prerequisite to II

Enrollment; regular

Program: Graduate

Course Rationale:

This course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in General Surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery practice locally and national level.

Course description

This is a basic and ‘first part’ of the course commonly referred to as’ surgery I. It deals with the principles & practice of surgery as both a science and an art. The course subject matter will integrate the etiology, epidemiology, clinical manifestations and physical findings, pathology & pathophysiology of surgical problems in adults and children. Acquiring with basic surgical thequenics & development of skills to handles emergency surgical problems at
different level as well as develop attitudes conducive to a positive patient physician relationship.

**Course objective:**

**The students will be able to:**
- integrate the etiology, epidemiology, clinical manifestations and physical findings, pathology & pathophysiology of surgical problems in adults and children
- Acquit basic surgical thequenics & development of skills to handles emergency surgical problems at different level

**Course content**

*Lecture topics*

1. Introduction to the course and basic principles of surgery - 3hrs
2. Fluid & electrolyte management of the surgical patient part I - 3hrs
3. Fluid & electrolyte management of the surgical patient part II - 3hrs
4. Shock - 2hrs
5. Acute abdomen - 2hrs
6. Intestinal obstruction - 2hrs
7. Poly trauma 1 and 2 - 6hrs
8. Fractures and joint dislocations - 4hrs
9. Bone and joint infections - 2hrs
10. Bone tumors - 2hrs
11. Burn - 5hrs
12. Surgical diseases of the esophagus (other than Ca.) - 2hrs
13. Tumors of the esophagus and stomach - 2hrs
14. Peptic ulcer diseases and complications of PUD - 2hrs
15. Diseases of the colon and rectum - 2hrs
16. Perineal diseases - 2hrs
17. Stone diseases of the gall bladder - 2hrs
18. Surgical diseases of the liver and biliary tree - 2hrs
19. Benign and malignant diseases of the thyroid - 2hrs
20. Breast diseases - 2hrs
21. Stone disease of the GUS - 2hrs
22. B.P.H. and Prostatic Ca - 2hrs
23. Genitourinary tumors - 2hrs
24. Suppurative diseases of the lungs and pleura - 2hrs
25. Lung and pleural tumors - 2hrs
26. Head injury and spinal cord injury - 2hrs
27. Adrenal gland tumors - 2hrs
28. Venous, lymphatic diseases and arterial diseases - 2hrs
29. Introduction to Ped. Surgery - 2hrs
30. Introduction to Plastic surgery - 2hrs
31. Brain tumors - 2hrs
32. Perineal diseases- 2hrs
33. Surgical diseases of the liver and biliary tree- 2hrs
34. Thyrotoxicosis and diseases of the parathyroid’s- 2hrs
35. Benign and malignant diseases of the thyroid- 2hrs
36. Pre operative patient assignment- 2hrs
37. Post operative complication- 2hrs
38. Wound management in surgery- 2hrs
39. Management of common soft tissue tumors management- 2hrs
40. Bone tumors - 2hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
6. Practical attachment
7. Round
ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:

- Attendance ........................................5%
- Weekly assignments .................................20%
- Active participation .................................10%
- Seminar presentations .............................15%
- Final Examination .................................50%

Students workload

Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module
Allocate the time appropriately to master the lesson and to accomplish it successfully.
Emphasize time devotion to academics.
Treat the course or module seriously and respectfully.
Maintain a quick lesson pace.
Plan daily tasks at helping students reach the realistic goals.
Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
Support students to approach all tasks.
Provide several alternative routes to task completion and involve all students in the instructional activities.

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:
1. Be active to work individually and in group.
2. Cooperate to learn with colleagues.
3. Share group tasks, experiences and presentations.
4. Handle all tasks through independents study and cooperative learning.
5. Take accountability for all tasks.
6. Use time wisely.

Grading policy
Grading System for the course
Grade:  A......................................85-100,
     B......................................70-84,
     C......................................60-69,
     D......................................50-59
CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

REFERENCES
1. TEXT BOOK OF SURGERY – BAILY & LOVE
2. TEXT BOOK OF SURGERY – HAROLD ELLIS
3. schwartz’s priniciple of surgery,9th edition


---

**III The main training core-curriculum of the program:**

In a systematic summary certain topics expected to be conversed and emphasized during the

**N.I.H.O.M.S. Training:**

1. (1) **Minor Oral surgery and Trauma:**

   - **Principles of surgery:** Developing a surgical diagnosis, basic necessities for Surgery, Aseptic Technique, incisions , Flap Design Tissue handling, Homeostasis dead space management decontamination and debridement, suturing edema control. Patient general health and nutrition.

   - **Medical emergencies:** Prevention and management of altered consciousness (syncope. orthostatic hypotension, seizures diabetes mellitus, adrenal insufficiency). Hypersensitivity reactions chest discomfort’ and respiratory difficulty.

   - **Examination and Diagnosis:** clinical history physical and radiographic, clinical and laboratory diagnosis oral manifestations of systemic diseases. Implications of systemic diseases in surgical patients

   - **Hemorrhage and shock:** applied physiology clinical abnormalities of coagulation. Extra vascular hemorrhage and hemorrhagic lesions management of secondary hemorrhage, shock.

   - **Exodontias:** principles of extraction indications and contraindications types of extraction. Complications and their management principles of elevators and elevators used in oral surgery

   - **Impaction:** surgical anatomy, classification indications and contraindications, diagnosis procedures. Complications and their management
- **Surgical Aids to Eruption of Teeth**: surgical exposure of un erupted teeth’ surgical repositioning of partially erupted teeth.
- **Transplantation of teeth**
- **Surgical Endodontic**: indications and contraindications, diagnosis, procedures of periradicular surgery.
- **Procedures to Improve Alveolar soft tissues**: requirements types (alveloplasty. Tuberosity reduction, mylohyoid ridge reduction, genial reduction, removal of exostosis vestibuloplasty).
- **Procedures to the Head and Neck**: odontogenic and non odontogenic infections, factors affecting spread of infection, diagnosis and differential diagnosis, management of facial space infections. Ludwig angina. Cavernous sinus thrombosis
- **Chronic Infections of the Jaws**: osteomyelitis (types, etiology, pathogenesis, management) osteoradionecrosis
- **Maxillary sinus**: type’s pathology, treatment closure of Oro-antral fistula, Caldwell- luc operation.
- **Cysts of the Orfacial region**: classification, diagnosis, management of OKC, dentigerous, radicular non odontogenic, cysts e.g ranula, dermoids and cystic hygromas.
- **Neurological Disorders of the Maxillofacial Region**: diagnosis and management of trigeminal neuralgia, MPDS, Bell’s Palsy, Frey’s syndrome, nerve injuries.
- **Implantology**: definition, classification, indications and contraindications, advantages and disadvantages surgical procedures.

**Anesthesia:-**

**Local Anesthesia**: classification of local anesthetic drugs. Modes of action indications and contra indications advantages and disadvantages, techniques, complications and their management.


- **Trauma.**
- **Surgical Anatomy of head and Neck**
- **Etiology of injury.**
- **Basic principles of Treatment.**
- **Primary care**: resuscitation, establishment of airway, management of hemorrhage, management of head injuries and admission to the hospital.
- **Diagnosis**: clinical radiological.
- **Soft Tissue Injuries of face and scalp**: classification and management of soft tissue wounds, injuries to structure requiring special treatment.
- **Dentoalveolar Fractures**: examination and diagnosis, classification, treatment prevention.
- **Mandibular fractures**: classification, examination and diagnosis, general principles of treatment, complications and their management.
- **Fractures of zygomatic complex**: classification, examination and diagnosis, general principles of treatment, complications and their management.
- **Orbital Fractures**: blow out fractures – blow in fractures
- **Nasal Fractures**.
- **Fractures of Middle third of the facial skeleton**: emergency care, fracture of maxilla and treatment of fort I, II, III. Fractures of Nasoorbitoethmoidal region.
- **Ophthalmic Injuries**: minor injuries, non-perforating injuries, perforating injuries, retro bulbar hemorrhage, and traumatic optic neuropathy, optic apex syndrome and superior orbital fissure syndrome.
- **Traumatic injuries of Frontal sinus**: diagnosis, classification, and treatment.
- **Maxillofacial injuries in geriatric and pediatric patients**.
- **Gunshot wounds and War injuries**
- **Osseointegration in Maxillofacial, Reconstruction**.
- **Metabolic response to Trauma**: neuro endocrine responses inflammatory mediators. Clinical implications.
- **Healing of Traumatic Injuries**: soft tissues, bone, and cartilage. Response of peripheral nerve to injury.
- **Nutritional Consideration following Trauma**.
- **Tracheostomy**: indications and contraindications, procedure, complications and their management.
MAXILLOFACIAL SURGERY:

PROGRAM OWNER: Mekelle University, College Of Health Science.
Department Of Dentistry

Course Title- Oral and Maxillofacial Surgery I,II,III,IV
Course No- DENT 704, DENT 801, DENT 901, DENT 1001 respectively
Credit Hours- DENT 704 16Cr, dent 801 18 cr, Dent 901 20 cr,
and DENT 1001 ,20Cr. Hr
Placement DENT 704, DENT 801, DENT 901, DENT 1001
at Year I,II,III,IV RESPECTIVELY
Pre-requisite(s): I is prerequisite to II,II TO III AND III TO IV
Enrollment; regular
Program: Graduate

Course Rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in OMFS and encourage to apply the knowledge obtained in oral and maxillofacial surgery practice locally and national level.

Course description
This is a basic and ‘CORE part’ of the curriculum. It deals with the principles & practice of oral and maxillo facial surgery as both a science and an art. The course subject matter will integrate the etiology, epidemiology, clinical manifestations and physical findings, pathology & pathophysiology of surgical problems in adults and children. Acquiring with basic surgical thequenics & development of skills to handles emergency surgical problems at different level as well as develop attitudes conducive to a positive patient physician relationship.

Course objective:
The students will be able to:
- integrate the etiology, epidemiology, clinical manifestations and physical findings, pathology & pathophysiology of surgical problems in adults and children
- Acquit basic surgical thequenics & development of skills to handles emergency surgical problems at different level

Course contents
1. Salivary glands:-60hrs
- Sialography
- Salivary fistulae and management.
- Diseases of salivary glands- developmental disturbances, cysty, inflammation and sialolithiasis.
- Mucocele and ranula.
- Tumors of salivary glands and their management
- Staging of salivary gland tumors
- Parotidectomy (superficial- total).

2. **Temporomandibular Joint:** - - 94hrs
- Ankylosis and management of the same with different treatment modalities.
- MPDS and management
- Condylectomy-different procedures.
- Various approaches to TMJ.
- Recurrent dislocations-TMJ.

3. **Oncology:**- 100hrs
- **Biopsy**
- Management of pre-malignant tumors of head and neck region.
- Benign and Malignant tumors of Head and Neck region.
- Staging of oral cancer and tumor markers.
- Management of oral cancer
- Radical neck dissection.
- Modes of spread of tumors.
- Diagnosis and management of tumors of nasal, para nasal, Neck, tongue, cheek, maxilla and mandible.
- Radiation therapy in maxillofacial regions.

4. **Orthognathic surgery:** - - 200hrs
- Diagnosis and treatment planning
- Cephalometric analysis
- Model surgery maxillary and mandibular repositioning procedures.
- Segmental osteotomies.
- Management of apertognathia.
- Genioplasty.

5. **Distraction osteogenesis** -- 80hrs

6. **Cysts and tumor of oro-facial region** - 140hrs

7. **Odontogenic and non –Odontogenic tumors and their management** - 120hrs

8. **Giant lesions of jaw bone.** - 50hrs
9. Fibro osseous lesions of jaw bone. - 50hrs
10. Cysts of jaws. - 110hrs
11. Laser surgery: - - 90hrs
   - The application of laser technology in surgical treatment of lesions.
   - Principles, applications of cryosurgery in surgical management cleft lip and palate surgery.
   - Detailed knowledge of the development of the face head and neck.
   - Diagnosis and treatment planning.
   - Current concepts in the management of cleft lip and palate deformity.
   - Knowledge of Nasoendoscopy and other diagnostic techniques in the evaluation of speech and hearing.
   - Concept of multidisciplinary team management
12. Aesthetic facial surgery- 90hrs
   - Detailed knowledge of the structures of the face and neck including skin and underlying soft tissue.
   - Diagnosis and treatment planning of deformities and conditions affecting facial skin.
   - Underlying facial muscles, bone eyelids and external ear.
   - Surgical management of post acne scarring, face-lift, blepharoplasty. Otoplasty, facial bone recon touring, etc.
13. Craniofacial surgery - 90hrs
   - Basic knowledge of developmental anomalies of the face, head and neck.
   - Basic concepts in the diagnosis and planning of various head and neck anomalies including facial clefts craniosynostosis, syndromes, etc.
   - Current concepts in the management of craniofacial

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,
1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
6. Practical attachment
7. Round
ASSESSMENT CRITERIA:

Students will be assessed continuously on the basis of:

- **Attendance** ………………………5%
- **Weekly assignments** …………………20%
- **Active participation** …………………10%
- **seminar presentations** ……………….15%
- **Final Examination** …………………50%

**Students workload**

Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

**Teacher’s Role**

Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module.
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities.

**Students’ Responsibility**

Students are responsible for both their success and failure. Hence, they need to:

1) Be active to work individually and in group.
2) Cooperate to learn with colleagues.
3) Share group tasks, experiences and presentations.
4) Handle all tasks through independents study and cooperative learning.
5) Take accountability for all tasks.
6) Use time wisely.

**Grading policy**

Grading System for the course

Grade: A………………………………..85-100,
B.................................70-84,
C................................. .60-69,
D.................................50-59
CJ=Cannot judge,
NA=Not Applicable
Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

References
17. Oral and Maxillofacial Surgery: An Objective-Based Textbook (9780443100734): Jonathan Pedlar BDS PhD FDSRCS (Eng), John W. Frame PhD MSc BDS
20. Illustrated Lecture Notes in Oral and Maxillofacial Surgery George Dimitroulis, MDSC, FDSRCS(ENG), FFDRCS(IREL), FRACDS(OMS)
IMPLANT SURGERY

PROGRAM OWNER: Mekelle University, College Of Health Science. Department Of Dentistry

Course Title- implantology
Course No – DENT 1003
Credit Hours- Twelve weeks
Placement year IV
Pre-requisite(s): NONE
Enrollment; regular
Program: Graduate

Course Rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, Skill and attitude of the residents in Implant surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery practice locally and national level.

Course Description:
This course is one the Core Programme and it will include didactic and clinical training as well as a hands-on course on the surgical and prosthodontic techniques.

Course Objective:
The students will be able to:
1. describe Scientific basis of dental implants
2. Overview dental implantology
3. Diagnose and treatment planning Diagnostic imaging
4. perform Surgical procedures, Soft tissue management and Prosthodontic procedures

Course Contents
1. Scientific basis of dental implants- 20hrs
2. Overview of dental implantology- 10hrs
3. Diagnosis and treatment planning- 20hrs
4. Diagnostic imaging-15hrs
5. Surgical procedures-30hrs
6. Soft tissue management-30hrs
7. Prosthodontic procedures-20hrs
i. Complete edentulous
ii. Partial edentulous
8. Single tooth replacement-15hrs
9. Immediate replacement implants – surgical and prosthodontic considerations-10hrs
10. Post insertion management-10hrs
11. Complications and their management-12hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
6. Practical attachment
7. Round

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:
➢ Attendance ................................. 5%
➢ Weekly assignments ...................... 20%
➢ Active participation ....................... 10%
➢ seminar presentations ................... 15%
➢ Final Examination ........................ 50%

Students workload
Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:
➢ Entertain students input to reach the realistic goals.
➢ Inform students about the realistic objectives of the course.
➢ Organize the contents of the course or module appropriately.
➢ Begin on time and punctuality throughout the module
➢ Allocate the time appropriately to master the lesson and to accomplish it successfully.
➢ Emphasize time devotion to academics.
➢ Treat the course or module seriously and respectfully.
➢ Maintain a quick lesson pace.
➢ Plan daily tasks at helping students reach the realistic goals.
➢ Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
➢ Support students to approach all tasks.
➢ Provide several alternative routes to task completion and involve all students in the instructional activities.

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:
   22. Be active to work individually and in group.
   23. Cooperate to learn with colleagues.
   24. Share group tasks, experiences and presentations.
   25. Handle all tasks through independent study and cooperative learning.
   26. Take accountability for all tasks.
   27. Use time wisely.

Grading policy
Grading System for the course

Grade:  A......................................85-100,
       B.........................................70-84,
       C......................................60-69,
       D.........................................50-59

CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

References
Neuro surgery

PROGRAM OWNER: Mekelle University, College Of Health Science.
Department of dentistry and AAU College of health science

Course Title: Neurosurgery
Course Code: NEURO902
Course Credits: 4 Cr. Hr
Semester/Session: year Three
Pre-requisite(s): none
Enrollment; regular
Program: Graduate

Course Rationale:
The course is intended to stimulate and sharpen the previous knowledge, Skill and attitude of the residents in neurology and, enhance and build residents knowledge, skill and attitude with early clinical exposure and development of clinical skills relevant to the human neurology.

Course Description:
This course is offered in Year 3 of the curriculum with the basic goal of providing the students with profound knowledge of the neurosurgery and with early clinical exposure the development of clinical skills relevant to the general human neurology.

Course objective:
The students will be able to
1. practice Early management of acute neurology injury
2. Interprete cervical spine films
3. Interprete other imaging methods
4. Manage critically ill patients within the neurosurgical intensive care unit
5. Neurological Disorders of the Maxillofacial Region:
6. diagnosis and management of trigeminal neuralgia, MPDS, Bell’s Palsy, Frey’s syndrome, nerve injuries

Course contents
1. Early management of acute neurology injury=20 hrs
2. Interpretation of cervical spine films 12hrs
3. Interpretation of other imaging methods 12hrs
4. Management of critically ill patients within the neurosurgical intensive care unit 38hrs
5. Neurological Disorders of the Maxillofacial Region: 40hrs
6. diagnosis and management of trigeminal neuralgia, MPDS, Bell’s Palsy, Frey’s syndrome, nerve injuries50 hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

8. lecture,
9. case study,
10. group discussion
11. Individual assignment
12. Seminar presentation
13. Practical attachment
14. Round

ASSESSMENT CRITERIA:

Students will be assessed continuously on the basis of:

- Attendance ........................................5%
- Weekly assignments .............................20%
- Active participation .............................10%
- Seminar presentations .......................15%
- Final Examination ..............................50%

Students workload

Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role

Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module.
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities.

Students’ Responsibility
Students are responsible for both their success and failure. Hence, they need to:
28. Be active to work individually and in group.
29. Cooperate to learn with colleagues.
30. Share group tasks, experiences and presentations.
31. Handle all tasks through independent study and cooperative learning.
32. Take accountability for all tasks.
33. Use time wisely.

**Grading policy**

Grading System for the course

**Grade:**

- **A**............................ 85-100,
- **B**............................ 70-84,
- **C**............................ 60-69,
- **D**............................ 50-59

*CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

**References**


**OPHTHALMOLOGY**

**PROGRAM OWNER:** Mekelle University, College Of Health Science.  
**Department Of Ophthalmology**

**Course Title- Ophthalmology**

**Course No – Ophth 802**

**Credit Hours- four Weeks**

**Placement year II**

- Pre-requisite(s): NONE
- Enrollment; regular
- Program: Graduate

**Course Rationale:**
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, skill and attitude of the residents in ophthalmology and encourage to apply the knowledge obtained in oral and maxillofacial surgery practice locally and national level.

**Course Description:**
Ophthalmology attachment during 2ND Year is intended to build upon the student’s knowledge, skill and attitude required in the diagnosis and management of diverse Ophthalmologic diseases. Emphasis is given to the management of major causes of blindness including performing minor procedures.

**Course objectives:**

- The students will be able to:
  1. Describe the basic anatomy and physiology off the visual system
  2. Describe History taking and examination of the visual system
  3. Explain Orbital disorders
  4. Distanguish Ophthalmic traumas and ocular injuries
  5. Define and describe Common eye lid diseases ,Uveitis,Refractive error ,Conjunctival diseases ,Corneal and scleral disorders,The red eye and ophthalmic emergencies and Lachrymal system and disorders

**Course contents:**

1. Introduction to basic anatomy and physiology off the visual system - - 5hrs
2. History taking and examination of the visual system - 6hrs
3. Orbital disorders - 6hrs
4. Ophthalmic traumas and ocular injuries- 4hrs
5. History taking and examination of the visual system - 6hrs
6. Common eye lid diseases - 4hrs
7. Uveitis- 2hrs
(8) Refractive error - 4hrs

(9) Conjunctival diseases - 4hrs

(10) Corneal and scleral disorders - 4hrs

(11) The red eye and ophthalmic emergencies - 4hrs

(12) Lachrymal system and disorders - 2hrs

(13) Trachoma - 1hrs

(14) Cataract - 4hrs

(15) Neuro-Ophthalmic disorders - 4hrs

(16) Glaucoma - 4hrs

(17) Childhood blindness and exophthalmia - 2hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
6. Practical attachment
7. Round

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:

➢ °Attendance ........................................5%
➢ °Weekly assignments .................................20%
➢ °Active participation .................................10%
➢ seminar presentations ..............................15%
➢ Final Examination .................................50%

Students workload
Students must attend at least 80% of the course to sit for exam

□ Students are supposed to do each and every assignment within the given deadline

□ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:
Entertain students input to reach the realistic goals.  
Inform students about the realistic objectives of the course.  
Organize the contents of the course or module appropriately.  
Begin on time and punctuality throughout the module  
Allocate the time appropriately to master the lesson and to accomplish it successfully.  
Emphasize time devotion to academics.  
Treat the course or module seriously and respectfully.  
Maintain a quick lesson pace.  
Plan daily tasks at helping students reach the realistic goals.  
Maintain a highly interactive instructional pattern and involve all students in the instructional activities.  
Support students to approach all tasks.  
Provide several alternative routes to task completion and involve all students in the instructional activities.

Students’ Responsibility  
Students are responsible for both their success and failure. Hence, they need to:  
34. Be active to work individually and in group.  
35. Cooperate to learn with colleagues.  
36. Share group tasks, experiences and presentations.  
37. Handle all tasks through independents study and cooperative learning.  
38. Take accountability for all tasks.  
39. Use time wisely.

Grading policy  
Grading System for the course  
Grade:  
A.................................85-100,  
B.................................70-84,  
C..............................60-69,  
D..............................50-59  
CJ=Cannot judge,  
NA-Not Applicable  
Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment.

Reference  
1- John sand ford – smith, **Eye disease in Hot Climate** c reed Educational and Professional publishing LTD, 1997  
2 - Kanski **clinical ophthalmology** c reed Educational and professional publishing LTD 1999  
3 - Kenneth W.wright, **A text Book of ophthalmology** - E. Ahmed  
4 - Albert and Jakoboiec **Principle and practice of ophthalmology**  
5 - **Up to date** - (C) 2001 - www.up to date.com. (800) 998-6374.(781)237-4788  
6 - D. Vaughan General ophthalmology  
7- John sand ford – smith, **Eye disease in Hot Climate** c reed Educational and professional publishing LTD, 1997  
8- Frith Hollwich, Ophthalmology  
9- J. kanski **clinical ophthalmology** creed Educational and professional publishing LTD 1999  
10- Kenneth W.wright, a **Text Book of Ophthalmology** - E. Ahmed  
11- Albert and Jakoboiec **Principle and practice of ophthalmology**  
12- **Up to date** - (C) 2001 - www.up to date.com.(800) 998-6374.(781)237-4788  
13- A manual for beginner of ophthalmology resident
PLASTIC AND RECONSTRUCTIVE SURGERY

PROGRAM OWNER: Addis Abeba University, College Of Health Science. 
Indian university Department Of reconstructive surgery

Course Title: Plastic and reconstructive surgery I and II
Course Code : SURG 904 and SURG 1002

Course Credits: 12 Cr. Hr./weeks each
Semester/Session: year three and four
Pre-requisite(s): general surgery I and II, OMFS I and II
Enrollment; regular
Program: Graduate

Course Rationale:
This course is intended to stimulate, enhance, build and sharpen the previous knowledge, skill and attitude of the residents in reconstructive surgery and encourage to apply the knowledge obtained in oral and maxillofacial surgery practice locally and national level.

Course Description: This is one of the basic and core courses of the Maxillofacial surgery program, which mainly deals with facial cosmetic surgery and reconstruction of defects those after surgical management of facial pathologies and congenital defects.

Course objective:
After completion of this course the residents are expected to;
1. To understand principles of plastic and reconstructive surgery
2. To manage oro- facial pathological defects
3. Understand basic principles of oro-facial cosmetic surgery
4. To repair congenital defects of the oro-facial region

Course contents:
1. principles of plastic and reconstructive surgery- 17hrs
2. management oro- facial pathological defects- 15hrs
3. basic principles of oro-facial cosmetic surger- 10hrs
4. Current concepts in the management of cleft lip and palate deformity, - 30hrs
5. knowledge of nasal endoscopy and other diagnostic techniques in the evaluation of speech and hearing, concept of multi-disciplinary team management. - 20hrs
6. Aesthetic facial surgery. Detailed knowledge of structures of facial neck including skin and underlying soft tissues, diagnosis and treatment planning of deformities and conditions affecting facial skin, underlying facial muscles. Bone eyelid, external ear etc.. - 40hrs
7. Surgical management of post acne scaring, face lift blepharoplasty, otoplasty, facial bone recountouring etc. Craniofacial Surgery, basic knowledge of developmental anomalies of face, head and neck, basic concepts in the diagnosis and planning of various head and neck anomalies including facial cleft, craniosynostosis syndromes etc. - 40hrs

8. Current concepts in the management of craniofacial anomalies- 20hrs

Course Delivery Methods:
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,
1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
6. Practical attachment
7. Round

ASSESSMENT CRITERIA:
Students will be assessed continuously on the basis of:
➢ °Attendance ........................................5%
➢ °Weekly assignments .................................20%
➢ °Active participation ................................10%
➢ seminar presentations ...............................15%
➢ Final Examination .................................50%

Students workload
Students must attend at least 80% of the course to sit for exam
☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

Teacher’s Role
Responsibility of Module leader and Tutors senior staff of this course are:
➢ Entertain students input to reach the realistic goals.
➢ Inform students about the realistic objectives of the course.
➢ Organize the contents of the course or module appropriately.
➢ Begin on time and punctuality throughout the module
➢ Allocate the time appropriately to master the lesson and to accomplish it successfully.
➢ Emphasize time devotion to academics.
➢ Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
- Maintain a highly interactive instructional pattern and involve all students in the instructional activities.
- Support students to approach all tasks.
- Provide several alternative routes to task completion and involve all students in the instructional activities.

**Students’ Responsibility**

Students are responsible for both their success and failure. Hence, they need to:

40. Be active to work individually and in group.
41. Cooperate to learn with colleagues.
42. Share group tasks, experiences and presentations.
43. Handle all tasks through independents study and cooperative learning.
44. Take accountability for all tasks.
45. Use time wisely.

**Grading policy**

Grading System for the course

**Grade:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>85-100</td>
</tr>
<tr>
<td>B</td>
<td>70-84</td>
</tr>
<tr>
<td>C</td>
<td>60-69</td>
</tr>
<tr>
<td>D</td>
<td>50-59</td>
</tr>
</tbody>
</table>

CJ=Cannot judge,
NA-Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment

**REFERENCE:**
OTOLARINGOLOGY

PROGRAM OWNER: Mekelle University, College Of Health Science.
Department Of ENT

COURSE TITLE: OTOLARINGOLOGY

COURSE NO: ENT 905

Course Credits: 8 Cr. Hrs
Placement: year III
Pre-requisite(s): NONE
Enrollment: regular
Program: Graduate

Course Rationale:
The course is intended to stimulate and sharpen the previous knowledge, skill and attitude of the residents in ENT region related to maxillofacial surgery and enhance and build residents knowledge, skill and attitude required to diagnose and manage common problems of ENT in local and national level.

Course Description:
ENT is intended to build upon the student’s knowledge, skill and attitude required to the diagnosis and management common Problems ENT seen among the out patients presenting of the health care institutes in Ethiopia.

COURSE OBJECTIVE:
Students will be able to examine patients presenting with head and neck pathologies commonly seen by the Pediatrician, Internist, or General practitioner such as: otitis media, sinusitis, tonsillitis, and other upper respiratory tract infections, allergic rhinitis, and various benign and malignant neoplasm of the head and neck region. A basic introduction into the interpretation of audiograms and other audiologic and vestibular tests will be provided. And acquire the skill needed to manage simple and emergency life threatening problems in ENT.

Course contents:

1. Anatomy and physiology ear nose and throat -- 20hrs
2. Innervations ,blood supply and muscles of ENT-8hrs
3. Obits media, -4hrs
4. Sinusitis, tonsillitis, and other upper respiratory tract infections, - 25hrs
5. Allergic rhinitis, and various benign and malignant neoplasm of the head and neck region. - 25hrs
6. A basic introduction into the interpretation of audiograms and other audiologic and vestibular tests - 20hrs
7. The skill needed to manage simple and emergency life threatening problems in ENT.
   - 26hrs

**Course Delivery Methods:**
Include those teaching methods that we plan to utilize during the semesters. These may include, but are not limited to,

1. lecture,
2. case study,
3. group discussion
4. Individual assignment
5. Seminar presentation
6. Practical attachment
7. Round

**ASSESSMENT CRITERIA:**
Students will be assessed continuously on the basis of:

- **Attendance** ..............................................5%
- **Weekly assignments** .............................20%
- **Active participation** .................................10%
- **seminar presentations** .......................15%
- **Final Examination** .............................50%

**Students workload**
Students must attend at least 80% of the course to sit for exam

☐ Students are supposed to do each and every assignment within the given deadline

☐ Cheating and plagiarism is strictly forbidden

**Teacher’s Role**
Responsibility of Module leader and Tutors senior staff of this course are:

- Entertain students input to reach the realistic goals.
- Inform students about the realistic objectives of the course.
- Organize the contents of the course or module appropriately.
- Begin on time and punctuality throughout the module.
- Allocate the time appropriately to master the lesson and to accomplish it successfully.
- Emphasize time devotion to academics.
- Treat the course or module seriously and respectfully.
- Maintain a quick lesson pace.
- Plan daily tasks at helping students reach the realistic goals.
Maintain a highly interactive instructional pattern and involve all students in the instructional activities.

Support students to approach all tasks.

Provide several alternative routes to task completion and involve all students in the instructional activities.

**Students’ Responsibility**

Students are responsible for both their success and failure. Hence, they need to:

46. Be active to work individually and in group.
47. Cooperate to learn with colleagues.
48. Share group tasks, experiences and presentations.
49. Handle all tasks through independents study and cooperative learning.
50. Take accountability for all tasks.
51. Use time wisely.

**Grading policy**

Grading System for the course

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>85-100</td>
</tr>
<tr>
<td>B</td>
<td>70-84</td>
</tr>
<tr>
<td>C</td>
<td>60-69</td>
</tr>
<tr>
<td>D</td>
<td>50-59</td>
</tr>
</tbody>
</table>

CJ=Cannot judge,

NA=Not Applicable

Resident who fail to score a total minimum grade of ‘B’ or 70% will repeat the attachment.

**References:**

1. Harold Ludman: Abc Of Ear, Nose And Throat, 1st Edition
21. ANNEX

21.1. Partners (Collaborators)
1. Department of Dentistry, College of PHMSC, Addis Ababa, Ethiopia
2. Department of Dentistry, San Millennium Medical College, Addis Ababa
3. Italian Society of MaxilloOdontostomatology, Italy

The President of S.I.M.O.
Prof. Mauro Orefici
mauro.orefici@gmail.com

www.simo-santapollonia.it
maxillo.odonto@gmail.com
06 84483366 – fax 06 8448363

21.2. Evaluation form
The faculty will consider the evaluation form of Mekelle University which is used to evaluate residency of general surgery as standard form for full report about the performance and progress of the candidate in different attachments.
DEPARTMENT OF DENTISTRY CHS,MU
PROGRESS ASSESSMENT FOR RESIDENTS IN ORAL AND MAXILLOFACIAL SURGERY

Name _______________________ Year of residency __________ Attachment to _______________________
Department of Internal Medicine
Period of attachment: From ______________ to ______________
Grade: A=85-100, B=70-84, C=60-69, D=50-59 = CJ = Cannot judge, NA = Not Applicable

<table>
<thead>
<tr>
<th>Parameter</th>
<th>CJ</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Basic Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Clinical Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Acquisition of current knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Patient assessment and care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ability in patient assessment as expressed in bundles (Hx,P/E,dx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Effectiveness in emergency care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ability in compiling and maintaining medical records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Ability & efficiency in diagnostic and therapeutic procedures
2. Ability and efficiency in doing side laboratory

D. Teaching and research
1. Interest & Ability in teaching
2. No of bed side teaching
3. Participation, interest and contribution in Research

E. Professional conduct and relationship
1. Patient-Doctor relationship
2. Relationship with colleagues and other staff
3. Dedication and responsibility to work

F. Overall assessment: _______________________

G. Remarks: ________________________________

Name and signature of evaluators:
A. ______________________  B. ______________________

I (Resident) am aware of the above evaluation signature: _____________

Date ______________
DEPARTMENT OF DENTISTRY CHS,MU
PROGRESS ASSESSMENT FOR RESIDENTS IN ORAL AND
MAXILLOFACIAL SURGERY

Name __________________________ Year of residency FIRST Attachment to Anesthesia
and Intensive care Medicine SOPD/Ward

Period of attachment: From _______________ to _______________

Grade: A=85-100,B=70-84,C=60-69,D=50-59=CJ=Cannot judge, NA=Not Applicable

<table>
<thead>
<tr>
<th>Parameter</th>
<th>CJ</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Basic Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Clinical Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Acquisition of current knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. Patient assessment and care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ability in patient assessment as expressed in bunds (Hx,P/E,dx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Effectiveness in emergency care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ability in compiling and maintaining medical records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C. Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ability &amp; efficiency in diagnostic and therapeutic procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ability and efficiency in doing side laboratory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D. Teaching and research</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Interest &amp; Ability in teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. No of bed side teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Participation, interest and contribution in Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E. Professional conduct and relationship</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Patient-Doctor relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Relationship with colleagues and other staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Dedication and responsibility to work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F= Overall assessment:____________________________

G. Remarks: ________________________________

Name and signature of evaluators:

A.________________________  B.________________________

I (Resident) am aware of the above evaluation signature: ____________  

Date _______________