# October University for Modern Sciences and Arts

# Faculty of Dentistry

**Programme of Study for the Degree of**

**Bachelor in Dental Surgery**

**B.D.S**

**2016**

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# 1. Introduction and Objectives Of the MSA Faculty of Dentistry

## 1.1. Introduction to MSA University

October University for Modern Sciences and Arts (MSA) was established according to Presidential Decree No. 244 in 1996 to introduce state-of-the-art technologies and concepts in all disciplines. MSA University is proud that its different programmes were validated by two distinguished British Universities before or in the case of some Faculties soon after the graduation of its first class in the spring of 2000.

MSA is an English Language instruction medium University. At MSA we are dedicated to the pursuit of excellence in curricula, facilities, staff and students. That is the main reason why our modern and progressive policies and up-to-date educational facilities have been internationally acknowledged by several universities in the UK and USA with whom we have several co-operation agreements. MSA programmes are designed and implemented according to the most rigorous and demanding international standards. All course outlines highlight the role of new and emerging technologies in meeting the challenges posed by the information and communication technology era. The academic work of the University was initially divided into five faculties, namely: Faculty of Management Sciences, Faculty of Engineering, Faculty of Computer Science, Faculty of Mass Communication and Faculty of Languages. In October 2004, according to the Presidential Decree No 322/2004 and the Decree of the Minister of Higher Education No 2173 dated 23/10/2004, MSA was granted the right to establish three more faculties:

1. Faculty of Dentistry
2. Faculty of Pharmacy
3. Faculty of Biotechnology

The faculties are located at the 6th of October campus, which provides excellent facilities for education and training in the above mentioned disciplines.

MSA aims to provide its students with an exceptional and enjoyable learning experience that will enable them to successfully compete in the highly competitive global job market.

## 1.2. The Faculty of Dentistry at MSA

The **Bachelor of Dental Surgery degree** offered by MSA University is a five year full time programme of study divided into two academic stages comprising 10 semesters as well as summer courses. Students have to finish successfully 211 credit hours (9 CH University requirements, 198 CH Faculty requirements and 4 CH Elective courses) over the 10 semesters and summer courses for graduation to achieve a cumulative GPA not less than 2.

The Faculty of Dentistry at the October University for Modern Sciences and Arts (MSA) aims at fulfilling an urgent academic and national need for establishing institutes and faculties that cater for the growing demand for high level graduates in the scientific and technological fields.

MSA's Faculty of Dentistry introduces a solid basis and hands-on experience allowing students to grasp the latest trends in dental science and practice. The University provides the most up-to-date equipment and highly qualified staff to insure the most efficient delivery of the knowledge

and skills required. The University believes that such knowledge and skills are essential for its graduates to take the lead in dental practice on both the domestic and regional levels.

The curricula of study are divided into two stages, corresponding to different stages of learning: the first includes six semesters that are devoted to basic general and medical sciences necessary to prepare the dental student to comprehend normal human biology and disease processes. It also comprises the Pre-Clinical courses, in which the dental student is trained on models and simulators before he/she is ready for the final stage of training. The second stage includes the last four semesters. During this stage, the Faculty encourages the concept of comprehensive and multidisciplinary dental care that permits diagnosis and integrated, comprehensive treatment planning and simultaneous learning experience in all dental clinical disciplines. In the clinical setting, students will undertake patient treatment under complete supervision of highly competent multidisciplinary team of Faculty Staff who combine advanced dental care skills with high standards of teaching. Students will also be trained to adhere to the proper codes of professional and academic ethics. This clinical training will enable students to diagnose dental and oral problems and treat the common ones that they may encounter during their post-graduation years. It will also involve task analysis, scheduling, delegation of duties and monitoring results.

Students will also learn the principles of assisted-operating dentistry, and will be made to be aware of professional and legal responsibilities to fellow staff and to their patients. The principles of preventive dentistry will prevail in every clinical discipline, so that new preventive dentistry techniques will be taught to students as they become available. Students will be trained to become conversant with the practice of preventive dental care including oral health education and oral health promotion. They will also be made to recognise the increasing evidence-based approach to treatment and hence will be able to make appropriate judgments. The student will be directed to appreciate the need to collaborate in prevention, diagnosis, treatment and management of disease with other healthcare professionals and with patients themselves. In the clinical stage, emphasis will be laid upon whole patient care, implying consideration of the patient’s total dental needs rather than just provision of separate items of treatment, taking into consideration the patient’s medical condition and needs. At all stages of their clinical training, arrangements will be made for infection control and for the control of all and any substances hazardous to health, as well as for the safety of equipment.

The curriculum has been designed and will be continuously revised and updated to effectively integrate the many components of the ten semester programme and make them as relevant as possible to the dental graduate of 2016 onwards. It includes the necessary knowledge, skills and professional approach and possesses strength in clinical skills. Within each level, a system of academic prerequisites will direct the student in choosing his academic load in each semester.

To improve the quality of our graduates and to prepare them to better interact with society, new and varied elective courses have been added to the programme of study. Psychology and Sociology, Medical Photography, Statistics, Business Administration, English Language for Research, Dental Informatics and Elementary Electronics are examples of such courses that

allow dental students to be better acquainted and better equipped to interact with their society and its problems.

The Faculty of Dentistry, MSA University is committed to graduate dentists who are characterized by deep theoretical knowledge, high clinical skills, and a well-rounded personality and who are fully aware of their place and duties in society. This means the dental graduate should be provided with professional knowledge of different dental fields of specialization, contemporary applications, and latest developments in dentistry as well as the dental skills necessary to deliver this knowledge to patients in terms of proper diagnosis, treatment planning and execution. All this takes place within a framework of ethics while keeping the general welfare of their patients at the forefront of their thoughts.

The courses have been designed according to national standards of this fast developing discipline in preparation for their eventual accreditation by National Authority for Quality Assurance and Accreditation of Education.

The methods of instruction at our Faculty include lectures, seminars, practical sessions, laboratory technical work, demonstrations and multidisciplinary clinical treatment of patients under staff supervision.

Dentistry students at MSA University are exposed to the rapidly growing information revolution in the medical and dental sciences, and are supplied with the latest laboratory and clinical equipment available worldwide. Huge investments are geared to provide excellence in scientific dental education.

Upon completion of their studies, our graduates will, in addition to acquiring the academic and practical skills necessary for the practice of dentistry, also acquire communication skills, personal management skills, information technology skills and an appreciation and analysis of ethical and legal issues in dentistry.

The Faculty of Dentistry, MSA University comprises the following departments:

1. **Department of Oral Histology and Oral Pathology comprising:**
    a. Descriptive Dental Anatomy (Human Dentition).
    b. Oral Biology and Oral Histology.
    c. Oral Pathology.
2. **Department of Dental Prosthetics comprising:**
    a. Dental Materials.
    b. Removable Prosthodontics.
    c. Maxillofacial Prosthodontics.
    d. Implant Prosthodontics.
3. **Department of Restorative Dentistry comprising:**
    a. Conservative & Esthetic Dentistry.
    b. Fixed Prosthodontics.
    c. Endodontics.

4. **Department of Oral Surgery and Anaesthesia comprising:**
    a. Oral and Maxillofacial Surgery.
    b. General Anaesthesia.
    c. Local Anaesthesia.
5. **Department of Paedodontics comprising:**
    a. Paedodontics.
    b. Orthodontics.
    c. Preventive Dentistry and Oral Public Health.
6. **Department of Oral Medicine and Periodontology comprising:**
    a. Oral Medicine.
    b. Periodontology.
    c. Oral Radiology and Oral Diagnosis
7. **Department of Supporting General Subjects comprising:**
    a. Chemistry (Inorganic – Physical – Organic).
    b. Physics.
    c. Zoology.
    d. Botany.
    e. Statistics.
    f. General Histology.
    g. Microbiology.
    h. Genetics.
    i. Ethics and Legal Aspects
    j. General Anatomy.
    k. Human Physiology.
    l. Biochemistry.
    m. Pharmacology.
    n. General Pathology.
    o. General Medicine and Dermatology
    p. General Surgery, E.N.T. and Ophthalmology

## 2. Programme Aims and Graduate Attributes

### Programme Aims

This undergraduate programme is designed for students who aspire to understand, analyse, forecast and influence the dental profession at the aggregate as well as the individual level. This programme aims to:

1. Provide knowledge about the practice of dentistry and development of relevant skills for the constructive use of that knowledge in their range of activities.

2. Provide students with the tools to apply the knowledge and skills they have acquired to the solution of theoretical and applied problems in dentistry and to exercise judgment in evaluating relevant socio-economic aspects of different communities.
3. Develop an understanding of problems in the dental field, so the graduate will be able to detect drug interactions and maintain safe and infection controlled environment in their field.
4. Enable graduates to apply their transferable skills involving team work, managing and evaluating one's own learning and/or making effective use of on-going dental technology.
5. Enable graduates to communicate effectively with their patients.
6. Enable graduates to continue their professional education and significantly contribute to the wide field of dental care of their patients.
7. Allow competence in oral health care services through diagnosis of oral and dental diseases and an understanding of the relationship between general and oral disease.
8. Develop clinical understanding and competence to practice without supervision, yet the graduate will be able to realize his/her limitations and refer patients to specialist advice and care when indicated.
9. Provide students with the basic knowledge of dental jurisprudence and the medico-legal and ethical responsibilities of dentists.

**Graduate Attributes**

1. Provide self-sufficient oral health care services through diagnosis of oral and dental diseases and an understanding of the relationship between general and oral disease.
2. Understand problems in the dental field, be able to detect drug interactions and maintain safe and infection controlled environment in their field.
3. Apply their transferable skills involving team work, managing and evaluating one's own learning and/or making effective use of on-going dental technology.
4. Communicate effectively with their patients.
5. Continue their professional education and significantly contribute to the wide field of dental care of their patients.
6. Maintain clinical understanding and competence to practice without supervision, yet the graduate will be able to realize his/her limitations and refer patients to specialist advice and care when indicated.
7. Understand the basic knowledge of dental jurisprudence and the medico-legal and ethical responsibilities of dentists.

# 3. Programme Learning Outcomes

## 3.1. Knowledge and Understanding

On completing this program the graduate must be able to:

1. Have a thorough understanding of the healthy human body and healthy oral cavity by becoming thoroughly acquainted with knowledge in basic sciences.
2. Develop thorough understanding of the diseases that affect the human body and the disease processes that are unique to the oral cavity: their causation, prevention, diagnosis, and treatment.
3. Develop the necessary understanding of social, economic, psychological and ethical aspects of the profession.
4. Develop and demonstrate sufficient knowledge for the comprehensive treatment and case management of their patients.
5. Understand the necessary knowledge to execute infection control and asepsis.
6. Develop the necessary knowledge to manage emergency cases.

## 3.2. Practical and Clinical Skills

On completing this program the graduate must be able to:

1. Demonstrate sufficient abilities for the comprehensive treatment and case completion of the patients assigned to them. The comprehensive treatment must involve all aspects of preventive procedures and general dental care, with an appropriate emphasis on restorative dental treatment.
2. Demonstrate sufficient abilities in different local anaesthetic techniques and treatment of general restorative cases with different filling materials, treatment of completely and partially edentulous cases, treatment by using simple crown and bridge prostheses, endodontic treatment, execution of all types of extractions and minor oral surgery, periodontal treatment, root planning, prophylaxis and simple periodontal surgery.
3. Diagnose the common oral lesions and the need for orthodontic care and fabricate simple orthodontic appliances.
4. Be able to diagnose and refer to specialists cases that need implants, specialised orthodontic treatment and/or maxillofacial surgery or prostheses.
5. Be able to perform primary dental care for children.
6. Manage dental and medical emergencies
7. Apply current infection control guidelines.

8. Be able to fabricate most types of prostheses in the lab, process acrylic resin, correct technical errors and cast different types of metals.
9. Control patient anxiety and prescribe the appropriate drugs.

### 3.3. Intellectual Skills

On completing this program the graduate must be able to:

1. Seek out, analyse and integrate diagnostic data to solve clinical problems.
2. Develop the necessary interpersonal skills to interact at an appropriate professional level with their patients.
3. Demonstrate an ability to prepare appropriate diagnosis and design treatment plans, to present the diagnosis and treatment options to their patients, to manage the dental care of assigned patients.
4. Develop the necessary skills to interact with different specialties and departments.
5. Develop the necessary skills in perceiving colour and aesthetics
6. Estimate the effects of medications taken by the patient on dental management.

### 3.4. General and Transferable Skills

On completing this program the graduate must be able to:

1. Appreciate using sources of continuing education and accurate information technology in providing contemporary dental care.
2. Develop a team approach to conduct multidisciplinary treatment plan for the assigned patients in a scientific and ethical approach.
3. Critically read, appraise and review the dental literature.
4. Perform critical thinking and problem solving in dental education.
5. Be fully aware of the necessity of basic concepts of quality assurance.
6. Develop analytical and presentational skills through the preparation, delivery and participation in assessed seminars.

## 4. Introduction to Dental Sciences

Dentistry is the vocational discipline which combines technological, scientific, medical, technical, and material issues in an integrated manner that caters for the health of the oral cavity and the dentition. In many parts of the Western World, the falling rate of dental caries has reduced the need for practice devoted mainly to restorative treatment. In our part of the world, however, although there is a sector of the population in whom caries incidence has also declined significantly, a great part of the population still suffer from widespread dental caries, and the

practicing dentist has to devote a significant part of his/her time and efforts to deal with treatment and prevention of the disease and its squeal.

Dental schools in our part of the world, therefore, have to devote enough time and training to deal with the requirements of that part of the population who still suffer from significant dental caries, and also to cater for the needs of that part who require advanced dental restorations, provision of complex fixed and removable prostheses and advanced surgical, periodontal and orthodontic care. Preventive measures and education of the population in oral health care issues are also major concerns.

Dentists today should play a much wider role than before as oral physicians, and should recognise the general health problems of their patients, particularly the elderly and the medically compromised. Prevention of oral and dental disease must also be one of their major concerns.

Dental graduates, therefore, need to be equipped with a sound understanding of basic biological and medical sciences, on which to build clinical dental knowledge and skill, without forgetting the importance of preventive measures against oral and dental disease. They should understand the importance of evidence-based dentistry and its relation to clinical practice. They should be able to evaluate the evidence and assess its relevance to treatment planning and provision. Graduates must also recognise and accept the obligation to practice in the best interests of their patients at all times.

### 4.1. Defining Principles

Dentistry integrates the main strands of the technological, material and biological sciences which relate to the dental health of the individual and the community and combines these sciences with all the related aspects of health care for the benefit of patients. Dentistry is also concerned with the provision of evidence-based advice to patients and the public on general dental and oral health matters. Thus, dentistry is a vocational discipline, defined by the application in a health care setting or context of scientific principles and intellectual rigour in and through:

- The diagnosis and development of safe and effective treatment plans and their delivery to patients.
- The purposeful integration of information and the process of critical evaluation leading to the application of dental and related medical knowledge.
- The optimal clinical use of dental materials.
- Advise on the proper care and hygiene of the mouth and the promotion of good oral hygiene leading to maintenance of good oral health.

Dentists are thus to be looked at as specialists in the health care community, bringing together material, biological, clinical, social and behavioural sciences employing them to achieve dental health of individual patients and of the community. In so doing, their activities are governed by:

- Mastery of a substantial body of knowledge, with practical and manipulative skills forming a significant part of the subject.
- The application of scientific and technical rigour to the use of materials.
- Evidence-based decision-making skills.

- Independent learning skills, forming the basis for lifelong learning.
  - » A multidisciplinary and integrative approach to solving health care problems.
  - » The assumption of personal and professional responsibility for the proper discharge of their role in society.
  - » A thorough grasp of law relating to dentistry.
  - » Development of a high level of interpersonal skills, which are analytical, critical, evaluative, interpretive, and reflective.
- The highest degree of ethical behaviour.

### 4.2. Teaching and Learning:

Methods of teaching vary according to individual courses, but are a mixture of lectures, practical sessions, clinical demonstrations, chair side teaching, seminars and directed self-learning, including IT-mediated learning environments. The Faculty of Dentistry believes that it is essential to maintain its commitment to small group teaching in the clinical environment as a requirement of clinical ascendancy. Teaching and clinical training will both be such as to inspire students to develop an analytical approach to both the theory and practice of clinical dentistry.

At stage one, lectures are intended to supply core knowledge and information. As students' progress to stage two, they will progress to more independent learning and to extend and supplement the core material delivered to them by using the available literature and electronic sources of information.

In line with MSA University policy, IT is being used to an increasing extent in support of traditional learning and teaching methodologies. The Faculty of Dentistry, as are all Faculties of MSA University, is at the forefront in the field of developing electronic learning and plans to embed this across all its courses.

The University has provided IT facilities, and a library including electronic library facilities sufficient to enable students to undertake guided self-learning. Courses of instruction are being given in the use of computer-assisted learning as a means to encourage personal learning.

In line with MSA University policy, the Faculty of Dentistry will be introducing mechanisms for the evaluation of teaching. This will include elements such as peer observation of teaching and external examiners as well as student feedback as a method of quality enhancement.

The Faculty of Dentistry at MSA University aims to deliver excellence in teaching and learning. A system of peer observation of teaching will be employed in line with guidance from the QA Unit of the University. The use of innovative learning methods will be encouraged where they have demonstrable educational benefits. The Faculty of Dentistry expects all staff to participate in peer observation.

### 4.3. Assessment Methods:

The assessment methods used for each course are described in the course outlines. Courses are assessed in various ways typically utilising a combination of coursework quizzes, laboratory and clinical examinations, midterm exams and end of semester examinations in the form of oral

and practical or clinical exams and unseen written examination. Assessment and examinations will be such as to integrate theoretical knowledge, understanding, skills and attitudes.

Much effort has been spent to ensure that examinations have validity and reliability using appropriate methods to assess the students' attainment of the learning objectives.

In both Preclinical and Clinical stages, a system of requirements will be used to ensure that a student taking a course has undertaken the necessary preparatory work. Accurate records of students' preclinical technology and clinical work are kept so that the amount and quality of their work can be definitively assessed. Sixth semester students are not to be allowed to sit for their end of semester examination unless they have satisfactorily fulfilled their fourth, fifth and sixth semesters prerequisite courses , and tenth semester students are not to be allowed to sit for their final tenth semester examination unless they have satisfactorily fulfilled their clinical requirements for the seventh to tenth semesters.

In order to safeguard patients allocated to dental students for restorative, periodontal or surgical work, it is essential to ensure that students have acquired the necessary manual dexterity and skills at the preclinical level. A system of prerequisites will ensure that the student does not proceed to clinical work until he has attained the required skill and manual dexterity. Accordingly, students may not proceed to clinical work in the seventh, eighth, ninth and tenth semesters until they have successfully passed assessment of their technical skills to ensure that they can work safely on patients under staff supervision, as well as ensuring that they have acquired a proper understanding of the ethical responsibilities which they must assume in the clinical set-up.

# 5. Programme Structure

## 5.1. The overall Bachelor programme structure

Programme structure and requirements, levels, courses, credits and awards:

- **Number of credits**: minimum of 211 credit hours
- **Stages** : Two stages; 1st stage representing semesters one to six and 2nd stage comprising semesters seven to ten.
- **Award**: BDS, Bachelor of Dental Surgery

MSA University Faculty of Dentistry offers a five year, ten semester full time programme inclusive of a preliminary semester that provides instruction in basic sciences as well as intensive training in English, the language of instruction of courses, and computer skills deemed essential to introduce students to the technological age that continually produces fresh information, and help them monitor such breakthroughs on the internet and in universities worldwide.

The curricula of study are divided into two stages: the first stage includes six semesters devoted to basic general sciences necessary to prepare the dental student to comprehend human biology, basic medical sciences, and is also the Pre-Clinical studies, in which the dental student is trained on models and simulators before he/she is ready for the second stage of training, which includes four semesters and is the Clinical studies. During this second stage, the dental student will be able to diagnose and treat the common dental problems that he/she may encounter during

his/her post-graduation years. A mandatory one year Internship in an approved University Hospital or General Hospital is required by law before a graduate is granted his certificate.

The programme is divided into study units called courses. Each course has a load of 1-5 credit hours. Courses are designated at stages 1 and 2 indicating progressively more advanced studies and representing the first six semesters (stage 1), and the seventh to tenth semesters (stage 2). A system of prerequisites is used to ensure that a student taking a course has undertaken the necessary preparatory academic, preclinical and clinical work. Accurate records of student's preclinical technology and clinical work are being kept so that the amount and quality of student's work can be assessed.

The BDS degree is granted to students who successfully complete a minimum of 211 credit hours divided as follows:

- 198 credit hours of Faculty requirements.
- 9 credit hours of University requirements.
- 4 credit hours of Elective courses.
  - The 198 credit hours of core requirements are the those that cover the main course of study comprising: Inorganic Chemistry; Physical Chemistry; Organic Chemistry; Physics; Zoology; Botany; Descriptive Dental Anatomy; Properties of Dental Materials; Elementary Statistics; General Histology; General Anatomy and Embryology; Human Physiology; Biochemistry; Pharmacology; Oral Biology; Basic Genetics; Ethics and Legal Aspects; General Pathology; Oral Pathology, General Medicine, Skin and Venereal Diseases; General Surgery, Ophthalmology and ENT; Preclinical and Clinical Operative Dentistry, Preclinical and Clinical Removable Prosthodontics; Preclinical and Clinical Fixed Prosthodontics, Preclinical and Clinical Endodontics; Oral Surgery and Anaesthesia; Oral Medicine and Periodontology; Oral Radiology and Oral Diagnosis; Orthodontics; and Paedodontics (including Preventive Dentistry and Oral Public Health).
  - The 9 credit hours of University requirements comprise English Language and Computer Science courses.
  - The 4 credit hours of elective requirements are courses that tackle aspects in Psychology and Sociology, Business Administration, Elementary Electronics, Equipment Maintenance, Medical Photography, General Material Science, Statistics, Dental Informatics and English Language for Research.

### 5.2. Teaching and Learning Strategy

**Lectures:** these are mainly designed as presentations, providing core knowledge and guidance in subjects being studied. Lectures should develop students' abilities in understanding and reflection. Audio-visual presentation techniques will be used to supplement their value.

**Seminars**: interactive ways of teaching including a variety of presentations, discussion groups and simulations. They will emphasize and demonstrate the ideas gained and concepts comprehended, and develop communication and problem-solving skills.

**Practical Sessions:** will be used to reinforce a deeper understanding of topics presented in lectures as well as develop students' manual skills and dexterity, and their skills in scientific methodology.

**Clinical Sessions:** in clinical disciplines to give students adequate experience in handling clinical cases to prepare them for future clinical practice. This will be done in multidisciplinary clinics under strict supervision by senior members of the staff of relevant departments. Emphasis will be focused on the transfer and continued development of practical clinical skills as well as on the acquisition of professional and ethical attributes appropriate to dental practice.

**Guided Independent Study Using Communications and Information Technology**: these include researches and assignments associated with lectures, laboratory classes and seminars and depending on library references given by the lecturers, and on the internet. This represents an effective way of independent learning and will develop students' study skills, self-reliance and independence of thought, preparing students for future continued education.

**Academic Counselling:** this informs students about the rationale, content, aims and objectives of the programme as a whole through open discussions about timetables and activities, especially in the early stages of the course.

## 6. Assessment Guides and Regulations:

The process of assessment is completely transparent. Staff mark the answer sheets with secret code in all examinations so that the identity of the student remains completely anonymous, thus ensuring that the assessment is truly objective and reflects the students' true academic standard. Each answer sheet is marked by two independent examiners.

The rules and regulations for assessment and progression in our programme are as follows and are detailed in the exam tables for each semester.

In Course Assessment (Quizzes + Lab. Work + Oral exams)

Mid Term exam

End of Semester Practical and/or Clinical exams*

End of Semester Oral exams*

End of Semester written exam* (1 hr for courses of 1 CH; 1.5 hrs for courses of 2 CH; and 3 hrs for courses of 3 CH or more)

* Final written, clinical and oral examinations are conducted by internal and external examiners.

The final BDS examinations are so designed as to allow coverage of all areas of the curriculum. They are also designed to allow an integrated approach to the assessment of student's knowledge and skills.

### 6.1. The Calendar of Assessment

There are 3 main periods of assessment and progression during the academic year:

- At the end of the Fall Semester (January).
- At the end of the Spring Semester (May - June).
- At the end of the Summer Semester (September).

The period of final assessment includes a deadline for submitting all assignments and preclinical and clinical requirements to be assessed before the final examinations.

## 7. General Rules and Regulations:

Credits acquired by students are based on the number of courses passed from the academic load. The academic load is the number of credits registered in each semester.

Students who get a grade of F (minimum of 55%) in one course may be condoned by a maximum of 5% by the Faculty Assessment Board. Students who obtain less than 60% (but more than 55%) in more than one course may be condoned by a maximum of five marks (5%) in those courses nearest to the pass mark if those added marks allow them to pass. Students who get less than 55% in any subject fail and may not be condoned.

- The academic load is the number of registered credits each semester.
- Credits acquired by the student are based on the credits of the passed courses from the academic load.
- Repeated courses will be counted once toward the calculation of accumulated credit hours. The best achieved GPA will be used for calculating the GPA.
- The cumulative GPA calculation starts from the first semester for each student and is updated each semester till his/her graduation.
- The semester GPA of the student is the weighted average of the grade points acquired in the courses passed in that semester*. It is calculated as follows:

$$\textbf{Semester GPA} = \frac{\Sigma \text{ (No. of credit hours of each course x corresponding GP)}}{\text{(Total Registered Credits in current Semester)}}$$

The number of credits used to calculate the Cumulative GPA is the number of credits registered by the student up to that date*.

$$\textbf{Cumulative GPA} = \frac{\Sigma \text{ (No. of credit hours of each course x corresponding GP)}}{\text{Total Registered Credits in all Semesters*}}$$

* Excluding failed courses' and transferred courses from other Universities' credits

### 7.1. Progression of Students:

Progression is determined by the number of Faculty requirements credit hours completed by students.

Students may progress to take any courses for which they have satisfactorily passed their prerequisites. Students may only register a maximum of 22 credit hours per semester (including English language and Computer science courses).

Concurrent courses have to be taken simultaneously in the same semester. To take any of these courses, therefore, all their corresponding prerequisite courses have to be satisfied.

University requirements (9 CH) and elective courses (4 CH) have to be successfully completed before graduation.

**Degrees**

The University offers the following Bachelor degree upon completion of the required credits:

**BDS** MSA University (211 credit hours)

**Graduation**

Students shall automatically receive the award of the University for which they are registered and qualify for upon completion of the requisite number of credits with a GPA equivalent to C or above at the end of the semester during which the total was achieved.

Graduation Ceremonies for each year are usually held in September (including the previous fall, spring and summer semesters).

## 7.2. Transferrals and Exemptions from Courses and Examinations

- Exemptions from parts of the programme and examinations may be granted only by the Faculty Board to students who have followed courses of study and passed examinations elsewhere substantially equivalent to those of the MSA University programme.

- The granting of such exemption will only be made when such application is supported by documentary evidence demonstrating a high level of concurrence between the content and standard of the previous programme and those parts of the MSA University programme and examination for which exemption is applied for.

- Applications for exemption must be made in writing by the student accompanied by all relevant information and documentation to the Faculty Dean who will forward them to the Heads of the relevant departments for consideration and recommendation, and shall subsequently be considered normally no later than the first subsequent meeting of the Faculty Board.

- All applications for exemption must be endorsed by the Faculty Academic Board.

## 7.3. Failure in Courses

Students must meet the deadline for submission of all coursework components and according to the requirements outlined in the Programme Handbook.

The student is considered a failure in the following cases:

- Students who fail to attend the final examination without acceptable extenuating circumstances.
- Students who fail to achieve 60% of the marks in Faculty requirement courses or 50% of

the marks in University requirement courses and elective courses.

Students who fail to attend the midterm exam will not be deprived from completing the course but will lose all the marks of that exam, unless the University President, on the Faculty Dean's recommendation, considers the extenuating circumstances acceptable and decides that the midterm exam marks are to be added to the marks of the final end of semester exam.

Summer courses will be organised and students will be allowed to attend a maximum of 8 CH. No student will be allowed to sit for re-exam in his failed course(s) unless he/she satisfactorily fulfils the requirements of the summer course(s).

### 7.4. Incomplete Courses

If a student fails to attend the end of semester exam for any emergency or exceptional circumstances, the University President, on the Dean's recommendation, may approve an incomplete grade. Follow-up examinations are to be set for such students at the end of the following semester.

## 8. Marking

### 8.1. Marking and Marking Moderation

All assessments are moderated to ensure that grades have been recorded accurately. Staff will mark answer sheets with secret codes to ensure that the marking process is totally unbiased.

Model answers are to be provided by Course Coordinators/Leaders as a guide for moderation. In the event that discrepancy arises between the examination marks of both midterm and final semester exams of a student whereby such student passes his/her examinations and fails his/her midterm marks or vice versa, or in the event that there is a high mean difference of 25% or more between the session work grade and the examination grades, such events will be investigated and assessed by the Faculty Assessment Board.

External examiners review exams and answer sheets with staff to ensure the fairness and objectivity of the assessment process.

### 8.2. Second Marking

A minimum sample of 10% of all answer sheets shall be remarked including all failures and not less than 5% of all passed papers. Remarking is undertaken by an internal examiner other than the course examiner. In the event that a second marker decides upon different marks for any of the papers remarked, he shall submit a report addressed to the Faculty Dean to such effect for a conclusive arbitration by the Faculty Board. A rationale should be provided in both cases of approval or changing of grades.

### 8.3. Condoning Failure

Condoling regulations are as follows:

1. Condoning regulations apply only if the student has scored a minimum of 30% in the final exam.
2. Failing students are entitled to 5 marks to be added to one or more courses in which he/she has failed subjects to scoring a min of 55% in the failed course.
3. The 5 marks are distributed over the largest possible failed courses.
4. In case of failure of two courses with the same grade, the priority for condonment will be granted to the non-core course,

### 8.4. Grade Appeals

Although the process of assessment is completely transparent, it allows for effective feedback. Thus despite the fair and accurate grading procedures, students are allowed to appeal their final grades. Students fill a Grade Appeal Form at the Faculty Registrar. The Faculty Registrar sends all grade appeals to the Examination Unit. The Examination Unit recalculates the total grade of the student from the records available and also checks that there is no indication that the examiners missed any questions or parts of questions during the marking of the answer sheets.

Students are allowed to submit grade appeals to the Registrar's office requesting the re-checking of the sum of coursework, midterm exam and final semester exam marks.

### 8.5. Publication of Results

Grades will be announced on notice boards and on the MSA University website at the end of each semester until before the beginning of the following semester.

### 8.6. Dismissal from Class

Students dismissed from classes for insubordination or other disciplinary reasons are not to return to class until the Dean of the Faculty permits it. MSA University Management cooperates with the teaching staff to maintain proper discipline.

### 8.7. General Regulations for the Conduct of Examinations

1. Except when prevented by illness or other sufficient cause, a student who fails to present himself/herself for examination at the time and place indicated in the published timetable will be deemed to have failed in that part of the examination.**.**
2. No candidate shall be permitted to enter the examination room after the lapse of fifteen minutes from the commencement of the examination.
3. No candidate shall be allowed to leave the examination room until after the expiration of half the time allocated for the examination.
4. Candidates are forbidden to take into the examination room any unauthorised books, manuscripts or other articles or any case or bag in which books, papers or unauthorised articles can be carried.

5. Candidates are forbidden to communicate with each other or to pass calculators or any other utensils to one another in the examination room. All enquiries must be addressed to the supervisor
6. Candidates are not allowed to carry cell phones into the examination room.
7. The impersonation of examination candidates is prohibited and **candidates must not allow themselves to be impersonated**.
8. The use of scrap paper is not permitted and all rough work must be done in the answer books provided.
9. Candidates must not leave the examination room until all their written work has been handed in.
10. Candidates must not remove from the examination room any answer books (whether used or unused) or any other data provided for use or other items of examination stationary except for any non-returnable question papers.

### 8.7.1. Academic Dishonesty and Plagiarism

MSA University students are expected to be honest in their academic endeavours. To falsify the results of one's work, to steal the words or ideas of another, to cheat on an examination, or to allow another to commit an act of academic dishonesty corrupts the basis of the academic process. All plagiarism cases are reported to the President's Office and are dealt with very severely. The minimum penalty for such cases is failing the course where this offence was committed. In some cases, the penalty may reach dismissal from the University for one semester or more based on the circumstances of the case. Academic dishonesty includes but is not limited to the following cases:

**Plagiarism:** is the inclusion of someone else's words, ideas or data as one's own. When students submit their work for credit that includes the words, ideas or data of others, the source of that information must be acknowledged through complete, accurate, and specific references and, if verbatim statements are included, through quotation marks as well. By placing his name on work submitted for credit, the student certifies the originality of all work not otherwise identified by appropriate acknowledgements. Plagiarism covers unpublished as well as published sources.

1- **Academic Dishonesty**: this includes but is not limited to the following cases:

- Quoting another person's actual words, complete sentences or paragraphs, or entire piece of written work without acknowledgement of the source.
- Using another person's ideas, opinions, or theory even if it is completely paraphrased in one's own words, without acknowledgement of the source.
- Borrowing facts, statistics or other illustrative materials that are not clearly common knowledge without acknowledgement of the source.
- Copying another student's essay test answers.
- Copying, or allowing another student to copy, a computer file that contains another student's assignment, and submitting it, in part or in full, as one's own.
- Working together on an assignment, sharing the computer files and programs

involved, and then submitting individual copies of the assignment as one's own individual work

When in doubt about rules concerning plagiarism, students are urged to consult with individual faculty members, academic departments, or recognized handbooks.

2- **Fabrication:** is the use of invented information or the falsification of research or other findings. Fabrication includes but is not limited to the following examples:

- Citation of information not taken from the source indicated. This may include the incorrect documentation of secondary source materials.
- Listing sources in a bibliography that is not directly used in the academic exercise.
- Submission in a paper, lab report or other academic exercise of falsified, invented, or fictitious data or evidence, or deliberate and knowing concealment or distortion of the true nature, origin or function of such data or evidence.
- Submitting as one's own any academic exercises prepared totally or in part by another.

3- **Cheating:** is an act or an attempted act of deception by which a student seeks to misrepresent that he/she has mastered information on an academic exercise that he/she has not mastered. Cheating includes but is not limited to the following examples:

- Copying from another student's test paper.
- Allowing another student to copy from a test paper.
- Unauthorized use of course textbook or other material such as a notebook to complete a test or other assignment
- Collaborating on a test, quiz or other project with any other person(s) without authorization.
- Using or possessing specifically prepared materials during a test, e.g., notes, formula lists or unauthorized notes written by the student on any material.
- Using electronic instruments, such as cell phones, pagers, etc., to share information, when prohibited.

- Taking a test for someone else or permitting someone else to take a test for him.

4- **Academic Misconduct** includes other academically dishonest acts such as tampering with grades or **taking part in obtaining or distributing any part of a test**.

### 8.7.2. Action against Plagiarism

The Faculty Assessment Board will take action against any student who plagiarizes whether through negligence, foolishness or deliberate intent. Students have to make sure that written material is acknowledged through the use of quotation marks, references and bibliographies. Information on the correct way of acknowledging work from other sources is available from campus learning resource centres, the English Language Support Union.

All plagiarism cases are reported to the President's Office and are dealt with very severely.

## 9. Professional and/or Statutory Body Requirements

MSA University programmes are accredited by the Supreme Council of Universities. Students who graduate from the MSA University can automatically join the relevant Syndicate for the profession with no additional exams. Graduates of the Faculty of Dentistry, MSA University are automatically granted membership of the General Dentist's Syndicate.

This membership provides for a license from the Ministry of Health for MSA University Faculty of Dentistry graduates to practice dentistry in Egypt. This advantage is a tremendous asset to graduates in the job market. A one year internship in an accredited University or General Hospital is, however, mandatory before a graduate is allowed to practice dentistry on his own.

## 10. Timetables and Accessing Records

### 10.1. Timetables

The University schedule is published on the MSA University web-site at the beginning of each semester and students can access this schedule at any time.

Students are provided with a detailed timetable at the end of the registration period at the beginning of each semester. A student can take a replacement copy from the Faculty Registrar at any time. Printed copies of the Examination Schedules are available one week before exam periods.

### 10.2. Accessing Records

Students can access their own grades either by taking an informal copy of their ten semester plan or by ordering a formal transcript from the Faculty Registrar. Formal transcripts will be available one week following submission of an application.

### 10.3. Feedback to Students

Feedback on assessment performance is a vital communication process between staff members and students. Constructive feedback facilitates learning and subsequently enhances marks and grades. Feedback will therefore be used as an integral element of the assessment process.

Provision of feedback for a certain assessment will be provided before a student undertakes another. Although the subsequent assessment component will probably not assess the same learning outcomes as other course assessments, feedback on technique may be just as important as the particular subject content.

### 10.4. Feedback on Coursework

Oral and written feedback will be given following the submission of assignments and during group meetings. Feedback on coursework will be by written comments and a grade. Feedback will also be provided through group discussions and group work. Student contribution to these class discussions will be noted according to evidence relating to participation, preparation and

attendance. Feedback on group case studies will be given during group sessions and on the day of the presentation.

### 10.5. Feedback on Examinations

Students may not be given specific feedback on written midterm and final semester examinations. The instructor may discuss generally with the whole class the model answer for each examination after it has been held as a means of improving future performance.

### 10.6. Proposition Courses/Dissertations/Projects

Dissertations are a form of coursework which involves the submission of a substantial report on a major project. Different approaches are taken in different subject areas.

Students will be provided with guidance and support during the process of writing a dissertation; this will usually take the form of individual/group tutorials with the instructor. Supervisors will hold open meetings with their dissertation students to solve the initial general/common problems of getting started.

Feedback on performance will be given to the students during the final presentation.

### 10.7. Viewing Scripts

Students are not allowed to view the scripts of midterm and final semester examinations. Instructors correct the answer sheets with secret code in both midterm and final semester examinations so that the identity of the student remains completely anonymous, thus insuring that the assessment is truly objective and reflects the students' true academic standard. Each answer sheet is marked by two independent examiners.

## 11. Copies of Past Examination Papers and Other Forms of Assessment

Past examination papers are a good guide to the sort of examination question that a student might encounter in his/her exams. Copies of past examination papers and other forms of assessment are available to all students at MSA University Library. Students order a copy and pay the required fee for photocopying the set of past examinations for each course. They receive it one week later. Sometimes, the syllabus for the course may have changed, and may not be concordant with what has appeared in past examination papers. Students are required to consult with their instructors concerning the validity of these samples.

## 12. Attendance

### 12.1. Attendance Requirements

Contact between the instructor and student is the most effective method of learning. Class discussions and comments enhance students' understanding of the course content and give a new dimension to the learning experience. For these reasons, students are required to satisfy certain attendance requirements. Students who fail to attend 75% of all lectures, practical

sessions, clinical sessions and tutorials for any course will be deprived from the final semester examination of that course and automatically fail the course. Absences for medical reasons and emergencies are excluded from this regulation provided that the student attends a minimum of 60% of lectures and practical and/or clinical sessions.

### 12.2. Policy on Late Arrival

Late arrivals disrupt the class and deprive other students from the required degree of concentration. Students are only allowed into the class during the first five minutes of each lecture or the first ten minutes of any practical or clinical session. Otherwise, they miss the class or practical or clinical session and are recorded as absent.

During midterm and final semester examination periods, students are allowed to step in during the first 15 minutes of the examination time.

## 13. Feedback From Students

### 13.1. Boards of Study

The purpose of the Board of Study is to provide a forum for discussion between students and staff involved in all aspects of the programme.

Students elect two of their own class as student members of the board at the start of each semester to ensure that all the various interests on the programme are adequately represented.

Each programme holds board of study meetings once per semester. Membership includes:

- Student representatives;
- Subject/programme leader;
- Academic staff aligned to the delivery of the programme or courses; and
- Support services representatives.

Student representatives represent the course or semester group and are responsible for notifying the board of issues which have been brought to them by their colleagues. Students will be made aware of the function of the board of study, and that they should ensure that their representatives are alerted in good time to matters of concern, or to suggest initiatives.

At MSA, minutes are made of the discussion and decisions of each board meeting, and this is circulated to members with outcomes. The reports are included with the Faculty annual monitoring report for consideration by the University. The points raised at the meeting are carefully recorded for issues arising, and the action taken upon them.

### 13.2. Student Representatives

Student members of the Boards are elected at the start of each semester to ensure that all the various interests on the Programme are adequately represented. A Board of Study meeting is held once per semester, between s 6 and 8. There will be 2 students per semester to represent the student body.

### 13.3. Course Evaluation Forms and Programme Evaluation Questionnaire

Both Course and programme feedback forms are distributed to students throughout the academic year. The aim of this feedback process is to elicit students' views on the quality of all the courses they have taken, and their experience of being a student on that programme of study.

Course forms, which examine each course in some detail, will be distributed at the end of each semester. Programme questionnaires, which invite comment on students' programme in general, will be distributed at the end of their first and final years. Both sets of forms will be completely anonymous.

Students can expect to receive a report on any issues that have been identified. The report will also describe the measures taken to resolve any problems. All reports will be items for discussion during Board of Study meetings and will, where necessary, be reported upon during the annual monitoring process. The whole feedback process will also be reviewed on a regular basis to ensure that it is effective in helping provide a good quality experience for students.

## 14. Career's Advice and Opportunities/Placement/Mentoring/ Voluntary Work

MSA is keen to provide its students with competitive programmes that aim to prepare them to compete effectively in the job market. The academic advisors and tutors co-operate closely with the Career Placement Office which provides feedback on the skills required by the job market in each specific program. The office also provides feedback on points of strength of MSA graduates and comments on areas that require improvement. This continuous effort insures that programmes are up-to-date and relevant to the needs of both national and international employers.

The Career Placement Office organises periodical job fairs that aim to provide students with work opportunities. The office also contacts new employers to increase the number and to improve the standard of the portfolio of organisations recruiting MSA graduates.

## 15. Student Support

MSA considers that one of its main goals is to provide a unique, friendly and pleasant atmosphere for its students. Staff members and students interact together constantly as members of one large family. Support and guidance is provided to students mainly from the Faculty Registrar and Student Affairs. The services include:

- Advice on solving problems and the procedures to be followed.
- Enrolment and fees payment.
- Registration procedures.
- Advice on career placement and training opportunities.
- Disability support and guidance.
- Attendance excuses.
- Appeals and complaints.
- Counselling.

- Enrolment/Graduation Certificates.
- Provide advice on any issue that concerns students' welfare other than the above.

### 15.1. Subject Advice and Educational Guidance

Following upon MSA University's main mission to provide a well-rounded unique learning environment for its students, MSA has introduced many methods to provide academic advice and aid to all students through the following channels:

#### 15.1.1. Academic Advisor

Academic advisors are available for students to offer advice and guidance during registration of courses. They also provide information to students about the different majors within each faculty. Assistants are also available to offer advice and support at all times.

#### 15.1.2. Individual/Group Study

Teaching assistants in every specialty are available to offer extra help to students. They work with students either individually or in small groups according to their individual needs.

#### 15.1.3. Information for Students with Disabilities

As an educational institution and employer, MSA recognises the equal rights of individuals and groups to be free from discrimination on the basis of sex, marital status, nationality, disability, and political and religious belief. The University accepts its responsibility in relation to these rights for people who are undertaking activities as part of their study or employment with MSA.

MSA University is committed to a continuous programme of upgrading its estate in order to improve accessibility for the disabled by incorporating provisions for wheelchair users (new campus in the sixth of October City). Thus this new campus includes the establishment of ramps, lifts, and toilets for disabled persons.

The Faculty of Dentistry, however, will impose certain constraints on physical disability as related to the requirements of the practice of dentistry.

### 15.2. English Language and Learning Support

MSA is an English Language medium instruction university. Students are required to sit for an English Language Placement Exam. Students who pass the Placement Exam would be accepted in the Faculty.

Students who need additional help and who have finished all the University language requirements are urged to contact the English Language Support Unit to arrange for extra help or to attend the extra group sessions as the need may arise.

## 16. Information and Learning Resources Services

Learning resources and support are provided by MSA University through different channels including:

### 16.1. IT Central Services

This unit controls and monitors the work of different Faculty IT Service Units. It also co-ordinates work between these units in the use of shared resources. The unit is also responsible for maintaining the IT infrastructure in the University.

### 16.2. Faculty IT Services Unit

This unit is responsible for providing hardware and software packages for the faculty requirements; as well as maintenance of equipment. It is also responsible for equipping all computers with different operating system platforms, database management systems, programming languages, software development kits, and education software tools to provide suitable training for different fields of specialisation.

It is also responsible for providing support to all instructors and students in using the audio-visual aids provided by the University.

### 16.3. Library Services

MSA library keeps books and periodicals ordered by University Faculties. Video, cassette tapes, and CD ROMs are provided for all subjects. Two big computer labs are annexed providing access to the Internet and the university's electronic library offering a broad range of full text database designed for research. The book store is responsible for providing handbooks to students at the beginning of each semester.

## 17. Health and Safety

Students have the same health and safety responsibilities as any other employee at MSA University and they must take reasonable care of their own health and safety and those of other people.

Special precautions will also be taken to safeguard Faculty of Dentistry Staff and Students and their patients against the risks of contracting communicable diseases such as AIDS and Hepatitis virus infections.

## 18. The Role of Employers in Programme Design and Delivery

The aim of MSA is to graduate dentists who are competent professional practitioners.

This is achieved by the influence of potential employers on the design and delivery of the dental courses through the extracurricular lectures tutored by external Professors from the Health Care fields.

This is in addition to the occasional meetings and exhibitions organised by the MSA and multinational employers in the University Campus to introduce the features required by those employers in the newly graduated student which raises their opportunities to be employed in such multinational employers.

MSA Faculty of Dentistry also invites leaders of the dental profession and potential employers in Egypt and in different Arab countries to visit its premises and to get acquainted with the Faculty facilities and courses, and to offer their comments and criticisms, as a means of improving its programmes and its graduate's chances in the Egyptian and Arab job market.

## 19. The Overall Programme Curriculum

## Notes on Courses, Course Codes and Numbering

### Course Codes

| | | | |
|---|---|---|---|
| SGS | Supporting General Science | ENG | English Language |
| HPT | Histopathology | CSD | Computer Science for Dentistry |
| PRS | Prosthetic Dentistry | BAD | Business Administration |
| RES | Restorative Dentistry | PSY | Psychology & Sociology |
| OSA | Oral Surgery and Anaesthesia | DEL | Dental Ethics and Legal Aspects |
| OMD | Oral Medicine and Diagnosis | STC | Statistics |
| POD | Paedodontics and Orthodontics | EET | Elementary Electronics |
| MPH | Medical Photography | DIN | Dental Informatics |
| EQM | Equipment Maintenance | | |

### Course Numbering

The number xyz is a three digit number where:

**X** is a digit between 1 and 5 denoting the **academic year** in which the course is delivered.

**Y** is a digit between 1 and 6 denoting the semester **within a stage** in which the course is delivered.

**Z** is an identifying digit.

### Educational Requirements

**Courses representing University Requirements are as follows**:

| Course Code | Course Name | Lecture Hours | Lab Hours | Total Hours | Credit Hours | Contact Hours |
|---|---|---|---|---|---|---|
| ENG 111b | English Language 1 | 3 | - | 3 | 3 | 45 |
| ENG 102d | English Language 2 | 3 | - | 3 | 3 | 45 |
| CSD 100 | Introduction to Computer Science | 2 | 2 | 4 | 3 | 60 |

**Elective Courses (only 4 credits from the following courses)**:

| Course Code | Course Name | Lecture Hours | Practical / Tutorial Hours | Total Hours | Credit Hours | Contact Hours |
|---|---|---|---|---|---|---|
| ENG 201 | English Language for Research | 3 | 2 | 5 | 3 | 75 |
| BAD 200 | Business Administration | 2 | 0 | 2 | 2 | 30 |
| EET 200 | Elementary Electronics | 1 | 2 | 3 | 2 | 45 |
| NUT 200 | Nutrition | 2 | 0 | 2 | 2 | 30 |
| MPH 200 | Medical Photography | 2 | 0 | 2 | 2 | 30 |
| GMS 200 | General Material Science | 1 | 2 | 3 | 2 | 45 |
| PSY 200 | Introduction to Psychology & Sociology | 2 | 0 | 2 | 2 | 30 |
| STC 200 | Advanced Statistics | 2 | 0 | 2 | 2 | 30 |
| DIN 200 | Dental Informatics | 1 | 2 | 3 | 2 | 45 |
| BLS 200 | Basic Life Support | 1 | 2 | 3 | 2 | 45 |

## Faculty Requirements

## Preclinical Stage, Lectures, Practical Sessions, Credit Hours and Contact Hours / Semester

| Prerequisites | Code | Course Name | Lctrs | Prct | CH | Cntct Hrs |
|---|---|---|---|---|---|---|
| None | SGS 111 | Inorganic Chemistry | 2 | 2 | 3 | 60 |
| None | SGS 112n | Physical Chemistry | 1 | 0 | 1 | 15 |
| None | SGS 113n | Physics | 2 | 2 | 3 | 60 |
| None | SGS 114n | Zoology | 1 | 2 | 2 | 45 |
| None | SGS 115n | Botany | 1 | 2 | 2 | 45 |
| None | SGS 116n | Statistics | 1 | 0 | 1 | 15 |
| None | HPT 111n | Descriptive Dental Anatomy-1 | 1 | 4 | 3 | 75 |
| None | SGS 121n | Organic Chemistry | 3 | 2 | 4 | 75 |
| SGS 111n,112n,113n | PRS 121n | Dental Materials-1 | 2 | 2 | 3 | 60 |
| SGS 114n | SGS 122n | General Histology-1 | 2 | 2 | 3 | 60 |
| SGS 115n | SGS 123n | Medical Microbiology-1 | 1 | 2 | 2 | 45 |
| None | SGS 124n | Principles of Genetics | 1 | 0 | 1 | 15 |
| HPT 111n | HPT 121n | Descriptive Dental Anatomy-2 | 1 | 4 | 3 | 75 |
| None | DEL 121n | Dental Ethics and Legal Aspects | 1 | 0 | 1 | 15 |
| PRS 121n | PRS 231n | Dental Materials-2 | 2 | 2 | 3 | 60 |
| SGS 122n | SGS 232n | General Histology-2 | 2 | 2 | 3 | 60 |
| SGS 123n | SGS 233n | Medical Microbiology-2 | 1 | 2 | 2 | 45 |
| SGS 122n | HPT 231n | Oral Biology-1 | 2 | 2 | 3 | 60 |
| SGS 114n | SGS 234n | General Anatomy-1 | 2 | 2 | 3 | 60 |
| SGS 114n | SGS 235n | Human Physiology-1 | 3 | 2 | 4 | 75 |
| SGS 121n | SGS 236n | Biochemistry-1 | 2 | 2 | 3 | 60 |
| PRS 231n, HPT 121n | RES 241n | Operative Dentistry Technology-1 | 1 | 2 | 2 | 45 |
| PRS 231n | PRS 241n | Applied Dental Materials-3 | 1 | 2 | 2 | 45 |
| PRS 231n | PRS 242n | Removable Prosthetics Technology-1 | 1 | 2 | 2 | 45 |
| HPT 231n | HPT 241n | Oral Biology-2 | 2 | 2 | 3 | 60 |
| SGS 115n, SGS 235n | SGS 242n | Pharmacology-1 | 1 | 2 | 2 | 45 |
| SGS 234n | SGS 244n | General Anatomy-2 | 2 | 2 | 3 | 60 |
| SGS 235n | SGS 245n | Human Physiology-2 | 2 | 2 | 3 | 60 |
| SGS 236n | SGS 246n | Biochemistry-2 | 2 | 2 | 3 | 60 |
| RES 241n | RES 351n | Operative Dentistry Technology-2 | 1 | 4 | 3 | 75 |
| PRS 241n, RES 241n | PRS 351n | Fixed Prosthetics Technology-1 | 1 | 4 | 3 | 75 |
| PRS 242n | PRS 352n | Removable Prosthetics Technology-2 | 1 | 4 | 3 | 75 |
| SGS 232n-233n-245n | SGS 351n | General Patholohy-1 | 2 | 2 | 3 | 60 |
| SGS 242n | SGS 352n | Pharmacology-2 | 1 | 2 | 2 | 45 |
| SGS 113n | OMD 351n | Dental Radiology-1 | 1 | 2 | 2 | 45 |
| RES 351n | RES 361n | Operative Dentistry Technology-3 | 1 | 4 | 3 | 75 |
| PRS 351n | PRS 361n | Fixed Prosthetics Technology-2 | 1 | 4 | 3 | 75 |
| PRS 352n | PRS 362n | Removable Prosthetics Technology-3 | 1 | 4 | 3 | 75 |
| SGS 351n | SGS 361n | General Patholohy-2 | 2 | 2 | 3 | 60 |
| HPT 241n ,SGS 351n | HPT 361n | Oral Pathology-1 | 4 | 2 | 5 | 90 |
| HPT 241Nn | POD 361n | Orthodontics-1 | 1 | 2 | 2 | 45 |
| OMD 351n | OMD 361n | Dental Radiology-2 | 2 | 2 | 3 | 75 |
| | | **Total** | **65** | **92** | **111** | **2370** |

## Clinical Stage, Lectures, Clinical Sessions, Credit Hours and Contact Hours/Semester

| Prerequisites | Code | Course Name | Lctrs | Clncl | CH | Cntct Hrs |
|---|---|---|---|---|---|---|
| RES 361n | RES 411n | Clinical Operative Dentistry-1 | 1 | 2 | 2 | 45 |
| RES 351n | RES 412n | Endodontics Technology | 1 | 2 | 2 | 45 |
| PRS 361n | PRS 411n | Clinical Fixed Prosthodontics-1 | 1 | 2 | 2 | 45 |
| PRS 362n | PRS 412n | Clinical Removable Prosthodontics-1 | 1 | 2 | 2 | 45 |
| HPT 361a | HPT 411n | Oral Pathology-2 | 3 | 2 | 4 | 75 |
| SGS 242n,246n,361n | SGS 411n | General Medicine-1 | 2 | 2 | 3 | 60 |
| SGS 242n,246n,361n | SGS 412n | General Surgery-1 | 2 | 2 | 3 | 60 |
| HPT 361n, OMD 361n | OMD 411n | Oral Medicine, Diagnosis & Radiology-1 | 1 | 2 | 2 | 45 |
| SGS 242n ,HPT 361n, OMD 361n | OSA 411n | Oral Surgery & Anaesthesia-1 | 2 | 2 | 3 | 60 |
| RES 411n | RES 421n | Clinical Operative Dentistry-2 | 1 | 4 | 3 | 75 |
| RES 412n | RES 422 | Endodontics Technology-2 | 1 | 2 | 2 | 45 |
| PRS 411n | PRS 421n | Clinical Fixed Prosthodontics-2 | 1 | 4 | 3 | 75 |
| PRS 412n | PRS 422n | Clinical Removable Prosthodontics-2 | 1 | 4 | 3 | 75 |
| POD 361n | POD 421n | Orthodontics-2 | 1 | 2 | 2 | 45 |
| SGS 411n | SGS 421n | General Medicine-2 | 2 | 0 | 2 | 30 |
| SGS 412n | SGS 422n | General Surgery-2 | 2 | 0 | 2 | 30 |
| OMD 411n | OMD 421n | Oral Medicine, Diagnosis & Radiology-2 | 2 | 2 | 3 | 60 |
| OSA 411n | OSA 421n | Oral Surgery & Anaesthesia -2 | 2 | 2 | 3 | 60 |
| RES 421n | RES 531a | Clinical Operative Dentistry-3 | 1 | 4 | 3 | 75 |
| PRS 421n | PRS 531n | Clinical Fixed Prosthodontics-3 | 1 | 4 | 3 | 75 |
| PRS 422n | PRS 532n | Clinical Removable Prosthodontics-3 | 1 | 4 | 3 | 75 |
| RES 411n | RES 532n | Clinical Endodontics-1 | 2 | 2 | 3 | 60 |
| RES 421n | POD 532n | Paedodontics-1 | 1 | 2 | 2 | 45 |
| OMD 421n, HPT 411n | OMD 531n | Oral Medicine & Periodontology-3 | 3 | 2 | 4 | 75 |
| OSA 421n, HPT 411n | OSA 531n | Oral Surgery & Anaesthesia -3 | 2 | 2 | 3 | 60 |
| RES 531a | RES 541n | Clinical Operative Dentistry-4 | 1 | 4 | 3 | 75 |
| PRS 531n | PRS 541n | Clinical Fixed Prosthodontics-4 | 1 | 4 | 3 | 75 |
| PRS 532a | PRS 542n | Clinical Removable Prosthodontics-4 | 1 | 4 | 3 | 75 |
| RES 532n | RES 542n | Clinical Endodontics-2 | 1 | 2 | 2 | 60 |
| POD 532n | POD 542n | Paedodontics-2 | 1 | 2 | 2 | 45 |
| OMD 531n | OMD 541n | Oral Medicine & Periodontology -4 | 2 | 2 | 3 | 60 |
| OSA 531n | OSA 541n | Oral Surgery & Anaesthesia -4 | 3 | 2 | 4 | 75 |
| | | **Total** | **48** | **78** | **87** | **1905** |

**Totals**

| | Lctrs | Prct | CH | Cntct Hrs |
|---|---|---|---|---|
| **Preclinical Stage** | **65** | **92** | **111** | **2370** |
| **Clinical Stage** | **48** | **78** | **87** | **1905** |
| **Total** | **113** | **170** | **198** | **4275** |

## Preclinical Subjects, Examinations and Marks

| Code | Course Name | Qzz/ | Mdtrm | Prctcl | Oral | Wrttn | Total |
|---|---|---|---|---|---|---|---|
| SGS 111 | Inorganic Chemistry | 10 | 10 | 30 | - | 50 | **100** |
| SGS 112n | Physical Chemistry | 20 | 20 | - | - | 60 | **100** |
| SGS 113 | Physics | 10 | 10 | 30 | - | 50 | **100** |
| SGS 114n | Zoology | 10 | 10 | 30 | - | 50 | **100** |
| SGS 115n | Botany | 10 | 10 | 30 | - | 50 | **100** |
| SGS 116n | Statistics | 20 | 20 | - | - | 60 | **100** |
| HPT 111n | Descriptive Dental Anatomy-1 | 10 | 20 | 20 | - | 50 | **100** |
| SGS 121 | Organic Chemistry | 10 | 10 | 30 | - | 50 | **100** |
| PRS 121n | Dental Materials-1 | 10 | 20 | 20 | - | 50 | **100** |
| SGS 122n | General Histology-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 123n | Medical Microbiology-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 124n | Principles of Genetics | 20 | 20 | - | - | 60 | **100** |
| HPT 121n | Descriptive Dental Anatomy-2 | 10 | 20 | 20 | - | 50 | **100** |
| DEL 121n | Dental Ethics and Legal Aspects | 20 | 20 | - | - | 60 | **100** |
| PRS 231n | Dental Materials-2 | 10 | 20 | 20 | - | 50 | **100** |
| SGS 232n | General Histology-2 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 233n | Medical Microbiology-2 | 10 | 10 | 20 | 10 | 50 | **100** |
| HPT 231n | Oral Biology-1 | 10 | 20 | 20 | - | 50 | **100** |
| SGS 234n | General Anatomy-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 235n | Human Physiology-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 236n | Biochemistry-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| RES 241n | Operative Dentistry Technology-1 | 10 | 20 | 30 | - | 40 | **100** |
| PRS 241n | Applied Dental Materials-3 | 10 | 20 | 20 | - | 50 | **100** |
| PRS 242n | Removable Prosthetics Technology-1 | 10 | 20 | 30 | - | 40 | **100** |
| HPT 241n | Oral Biology-2 | 10 | 20 | 20 | - | 50 | **100** |
| SGS 242n | Pharmacology-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 244n | General Anatomy-2 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 245n | Human Physiology-2 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 246n | Biochemistry-2 | 10 | 10 | 20 | 10 | 50 | **100** |
| RES 351n | Operative Dentistry Technology-2 | 10 | 20 | 30 | - | 40 | **100** |
| PRS 351n | Fixed Prosthetics Technology-1 | 10 | 20 | 30 | - | 40 | **100** |
| PRS 352n | Removable Prosthetics Technology-2 | 10 | 20 | 30 | - | 40 | **100** |
| SGS 351n | General Patholohy-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| SGS 352n | Pharmacology-2 | 10 | 10 | 20 | 10 | 50 | **100** |
| OMD 351n | Dental Radiology-1 | 10 | 10 | 20 | 10 | 50 | **100** |
| RES 361n | Operative Dentistry Technology-3 | 10 | 20 | 30 | - | 40 | **100** |
| PRS 361n | Fixed Prosthetics Technology-2 | 10 | 20 | 30 | - | 40 | **100** |
| PRS 362n | Removable Prosthetics Technology-3 | 10 | 20 | 30 | - | 40 | **100** |
| SGS 361n | General Patholohy-2 | 10 | 10 | 20 | 10 | 50 | **100** |
| HPT 361n | Oral Pathology-1 | 10 | 20 | 20 | 10 | 40 | **100** |
| POD 361n | Orthodontics-1 | 10 | 10 | 30 | 10 | 40 | **100** |
| OMD 361n | Dental Radiology-2 | 10 | 10 | 20 | 20 | 40 | **100** |

## Clinical Subjects, Examinations and Marks

| Code | Course Name | Qzz | Mdtrm | Clncl | Oral | Wrttn | Total |
|---|---|---|---|---|---|---|---|
| RES 411n | Clinical Operative Dentistry-1 | 20 | 10 | 30 | 10 | 30 | **100** |
| RES 412 | Endodontics Technology-1 | 20 | 20 | 30 | - | 30 | **100** |
| PRS 411n | Clinical Fixed Prosthodontics-1 | 20 | 10 | 30 | 10 | 30 | **100** |
| PRS 412n | Clinical Removable Prosthodontics-1 | 20 | 10 | 30 | 10 | 30 | **100** |
| HPT 411n | Oral Pathology-2 | 10 | 20 | 20 | 10 | 40 | **100** |
| SGS 411n | General Medicine-1 | 10 | 10 | 10 | 15 | 40+15 | **100** |
| SGS 412n | General Surgery-1 | 10 | 10 | 10 | 15 | 40+15 | **100** |
| OMD 411n | Oral Medicine, Diagnosis & Radiology-1 | 20 | 10 | 20 | 10 | 40 | **100** |
| OSA 411n | Oral Surgery & Anaesthesia-1 | 10 | 10 | 30 | 10 | 40 | **100** |
| RES 421n | Clinical Operative Dentistry-2 | 20 | 10 | 30 | 10 | 30 | **100** |
| RES 422 | Endodontics Technology-1 | 20 | 20 | 30 | - | 30 | **100** |
| PRS 421n | Clinical Fixed Prosthodontics-2 | 20 | 10 | 30 | 10 | 30 | **100** |
| PRS 422n | Clinical Removable Prosthodontics-2 | 20 | 10 | 30 | 10 | 30 | **100** |
| POD 421n | Orthodontics-2 | 10 | 10 | 30 | 10 | 40 | **100** |
| SGS 421n | General Medicine-2 | 10 | 10 | 10 | 15 | 40+15 | **100** |
| SGS 422n | General Surgery-2 | 10 | 10 | 10 | 15 | 40+15 | **100** |
| OMD 421n | Oral Medicine, Diagnosis & Radiology-2 | 20 | 10 | 20 | 10 | 40 | **100** |
| OSA 421n | Oral Surgery & Anaesthesia -2 | 10 | 10 | 30 | 10 | 40 | **100** |
| RES 531a | Clinical Operative Dentistry-3 | 10 | 10 | 30 | 10 | 40 | **100** |
| PRS 531n | Clinical Fixed Prosthodontics-3 | 20 | 10 | 30 | 10 | 30 | **100** |
| PRS 532a | Clinical Removable Prosthodontics-3 | 10 | 10 | 30 | 10 | 40 | **100** |
| RES 532n | Clinical Endodontics-1 | 10 | 10 | 30 | 10 | 40 | **100** |
| POD 532n | Paedodontics-1 | 20 | 10 | 20 | 10 | 40 | **100** |
| OMD 531n | Oral Medicine & Periodontology-3 | 10 | 20 | 20 | 10 | 40 | **100** |
| OSA 531n | Oral Surgery & Anaesthesia -3 | 10 | 10 | 30 | 10 | 40 | **100** |
| RES 541n | Clinical Operative Dentistry-4 | 20 | 10 | 30 | 10 | 30 | **100** |
| PRS 541n | Clinical Fixed Prosthodontics-4 | 20 | 10 | 30 | 10 | 30 | **100** |
| PRS 542n | Clinical Removable Prosthodontics-4 | 20 | 10 | 30 | 10 | 30 | **100** |
| RES 542n | Clinical Endodontics-2 | 20 | 10 | 30 | 10 | 30 | **100** |
| POD 542n | Paedodontics-2 | 20 | 10 | 20 | 10 | 40 | **100** |
| OMD 541n | Oral Medicine & Periodontology -4 | 10 | 20 | 20 | 10 | 40 | **100** |
| OSA 541n | Oral Surgery & Anaesthesia -4 | 10 | 10 | 30 | 10 | 40 | **100** |

**Abbreviations used in column titles**:

| | |
|---|---|
| Qzz | Quizzes & Course Work |
| Mdtrm | Midterm |
| Prctcl | Practical |
| Clncl | Clinical |
| Wrttn | Written |

## 20. The Faculty of Dentistry Grading Scheme

| Letter Grade | Marks | GPA | Grade Description |
|---|---|---|---|
| A | ≥ 90% | 4 | Excellent |
| A- | < 90% - ≥ 85% | 3.67 | |
| B+ | < 85% - ≥ 80% | 3.33 | V. Good |
| B | < 80% - ≥ 75% | 3 | |
| B- | < 75% - ≥ 70% | 2.67 | Good |
| C+ | < 70% - ≥ 65% | 2.33 | |
| C | < 65% - ≥ 60% | 2 | Pass |
| F | < 60% | 0 | Fail |
| University requirements and elective courses | | | |
| C- | < 60 - ≥ 56% | 1.67 | Pass |
| D+ | < 56 - ≥ 53% | 1.33 | |
| D | < 53 - ≥ 50% | 1 | |
| F | < 50% | 0 | Fail |

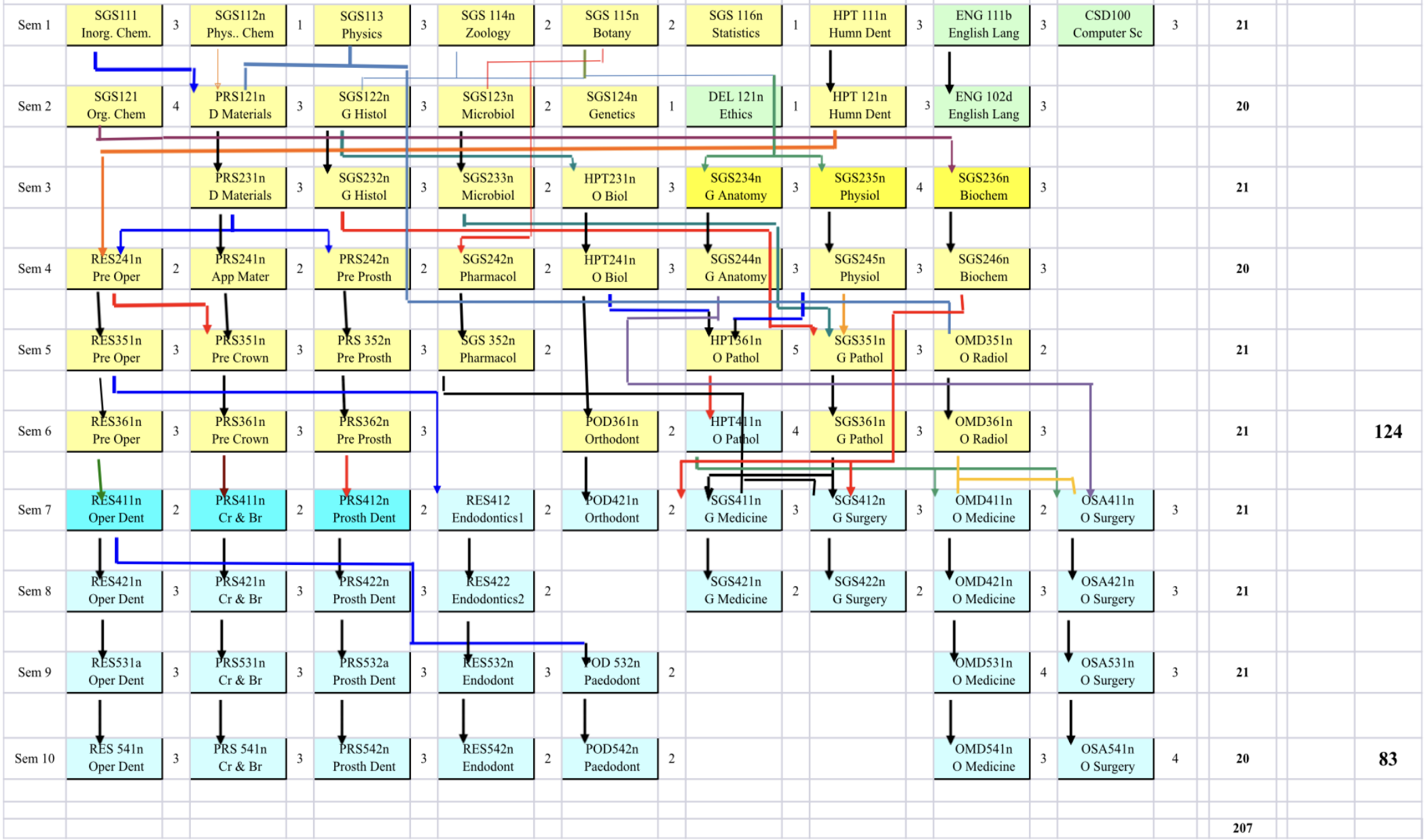
| | | |
|---|---|---|
| Achieved less than 60% of the Marks | F | 0 |
| Deprived from attending the Exam | F1 | 0 |
| Did not attend the Exam | F2 | 0 |
| Less than 30% in the Written Exam | F3 | 0 |

## 21. GUIDE TO THE RULES AND REGULATIONS FOR REGISTRATION

1. All new students, even transferred students, have to take the **English Language placement examination**.
2. English Language courses; and computer Science courses (University Requirements) **have to take priority** in registration for all students until they pass all required courses in these two subjects.
3. Students have to register strictly **according to the curriculum map** in **early levels** before they can register in **higher levels**, i.e. semester one courses before semester two and so on.
4. Students may not register in level three courses until they have passed all level one courses, they may not register in level four courses until they have passed all level two courses and so on. (Curriculum map is published on the notice board).
5. Students may not register in any courses until they have **passed the prerequisite courses** according to the curriculum map.
6. Students whose cummilative GPA is **less than 1** can only register a total of **12 credit hours** (English Language and computer Science courses included).
7. Students whose cummilative GPA is between **1 and 2** can register no more than **15 CH**, English and Computer Science courses are included and have to **take priority in registration** until the student has passed these two subjects.
8. Students whose cummilative GPA is greater than or equal **2** can take the **normal load**.
9. Students whose cummilative GPA is over 3.67 on their graduating semester can take one

(**See following curriculum map**)

## Progression and Prerequisites



## 22. Course Specification

Preclinical Stage; First Semester

Course Outline

**Course Code**: SGS 111

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Inorganic Chemistry

**Department:** Department of Chemistry, MSA

**Course Coordinator**: Dr Ahmad Fahmy

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: None

| 2- Objective of Course |
|---|
| This course provides an introduction to the basic principles and concepts which explain the behavior of the matter, atomic, structure, chemical bonding, preparation of solution, corrosion of metals, and structure of polymeric materials. |

| 3- Intended Learning Outcomes | | |
|---|---|---|
| i. | Knowledge & Understanding | - Understand the basic ideas of the quantum mechanics theory for explaining the atomic structure.<br>- Understand the relation between the electronic configuration of an atom to its reactivity and its position in the periodic table. |
| ii. | Intellectual Skills | - differentiate between the various types of chemical bonding.-<br>- Use the dimensional analysis in calculations that is involving conversion from one set of units to another |
| iii. | Practical & Professional Skills | - Use the physical and chemical properties to identify an unknown compound (salts).<br>- Prepare a solution of known concentration<br>- Be able to perform experiments in the laboratory safely and learn how to collect data, write results and make conclusion based on these results. |
| iv. | General & Transferable Skills | - Understand the safety regulations in chemical laboratory |

| 4- Course Content |
|---|
| - Chapter1: units of measurements<br>- Chapter2: atomic structure and periodic table.<br>- Chapter3: historical structure of hydrogen atom (Bore Theory)<br>- Chapter4: chemical bonding<br>- Chaptee5: Lewis structure and VSEPR model.<br>- Chapter6: Valance bond theory<br>- Chapter7: Solution<br>- Chapter8: Corrosion<br>- Chapter9: Polymer |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures PowerPoint, handout, lectures (e-learning)<br>- Labs |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Extra hours. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Evaluation of achievements of all the ILOs and objectives, by quizzes for continuous in-course assessment.<br>- Three-hour final written exam to assess students' core theoretical knowledge.<br>- Practical lab exam |
| ii. Assessment Schedule | Through working day |

| | | |
|---|---|---|
| iii. | Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 10%<br>Practical Exam 30%<br>End of Semester Written Exam 50%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | Lecture notes, and handout |
| ii. Reference Textbooks | |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | |

Preclinical Stage; First Semester

Course Outline

**Course Code**: SGS 112n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Physical Chemistry

**Department:** Department of Chemistry, MSA

**Course Coordinator**: Dr Ahmad Fahmy

**Level**: 1 **Credit Hours**: 1

**Prerequisites**: None

| 2- Objective of Course |
|---|
| The course is designed to provide the student with the basic knowledge of chemistry including:-<br>- The states of matter,<br>- Types of gases and solutions and their behavior,<br>- Chemical bonding in addition to the different forces between molecules.<br>- Chemical reactions and the factors affecting the reaction rate. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Understand the difference between the ideal gas and real gas behavior's.<br>- Understand the relation between the electronic configuration of an atom to its reactivity and its position in the periodic table and some physical properties for the matter and gases as well as solutions.<br>- Understand, why some reactions are fast, while others are slow, through their reaction rate. |
| ii. Intellectual Skills | - Differentiate between elements and compounds<br>- between the ideal and non-ideal solutions. Differentiate between the different types of forces involved between the different molecules.<br>- Explain the difference |
| iii. Practical & Professional Skills | - There is no practical section in this course |
| iv. General & Transferable Skills | - Understanding the relation between some physical parameters for gases and solving a problems including gas and solution properties. |

| 4- Course Content |
|---|
| - Chapter1: States of Matter<br>- Chapter 2: Gas Properties<br>- Chapter 3: Forces Between Molecules<br>- Chapter 4: Properties of Solutions.<br>- Chapter 5: Chemical Kinetics. |

| 5- Learning & Teaching Strategies |
|---|
| Lectures PowerPoint, handout, lectures (e-learning) |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Extra hours. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Evaluation of achievements of all the ILOs by quizs for continuous in-course assessment.<br>- Three-hour final written exam to assess students' core theoretical knowledge. |
| ii. Assessment Schedule | Through working day |
| iii. Assessment Pattern | In Course Quizzes and cli 20%<br>Mid-term Exam 20%<br>End of Semester Written Exam 60%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | Lecture notes, and handout |
| ii. Reference Textbooks | |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | |

Preclinical Stage; First Semester

Course Outline

**Course Code**: SGS 113

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Physics

**Department:** Department of Physics, Faculty of Engineering, MSA

**Course Coordinator**: Professor Abdel Nasser Abul Fotouh

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: None

| | |
|---|---|
| 2- Objective of Course: | This course is designed to give first semester students the basics of electricity, fluid mechanics, magnetism, waves, sound and light, and physics of radiation. Special emphasis will be placed on physics in relation to dentistry. A course of biophysics comprising effects of ionizing radiation on living cells and tissues as well as types of lasers and their effects and applications is also included. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding 1 | - Understand the basics of physics.<br>- Understand the basics of physics in relation to dentistry. |
| ii. Intellectual Skills: | |
| iii. Practical & Professional Skills: | - Ability to use the physics lab.<br>- Ability to conduct simple physics experiments. |
| iv. General & Transferable Skills: | |
| 4- Course Content: | - Basic principles of Physics<br>- Electricity<br>- Fluid mechanics<br>- Magnetism<br>- Waves<br>- Sound and light<br>- Physics of Radiation<br>- Light curing<br>- Laser |
| 5- Learning & Teaching Strategies: | Teaching / Learning Strategies:<br>- Lectures to explain underlying principles.<br>- Lab to apply those principles practically. |

| | |
|---|---|
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment | |
| i. Assessment Schemes : | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their ability to perform physics experiments.<br>- Three hours final unseen written exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | - Quizzes: throughout the semester.<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- |
| iii. Assessment Pattern: | In Course Tests 10%<br>Midterm Exam 10%<br>Practical Exam 30%<br>End of Semester Written Exam 50%<br>**Total** **100%** |
| 8- List of References: | |
| i. Handouts & Lecture Notes | None |
| ii. Reference Textbooks | - Desmond M Burns 1975, Physics for Biology and Pre-Medical Students by Addison-Wesley Publishers<br>- Rodney M. J. Cotterill 2002, Biophysics : An Introduction by John Wiley & Sons |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | **Software Requirements**<br><br>**Useful Websites** |

Preclinical Stage; First Semester

Course Outline

**Course Code**: SGS 114n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Zoology

**Department:** Department of Zoology, Faculty of Science, Cairo University

**Course Coordinator**: Dr Ahmed Aref

**Level**: 1 **Credit Hours**: 2

**Prerequisites**: None

| 2- Objective of Course |
|---|
| This course aims to introduces the dental student the basic concepts of cellular biology. The course examines how cells are structured, how cellular activity is regulated and how cells achieve homeostasis and interact with each other in multicellular systems, how new cells are formed and die, and how normal cells can transformed to cancer cells. This course structured to develop critical thinking skills as well as other knowledge acquisition.<br>The practical part serves in providing the student with the basics needed in handling and preparing specimens, how to use microscopy and how to interpret their results. Also, it is meant to familiarize him with internal environment of an organism while providing him with basics of dissection and anatomy in addition of developing his tools handling skills. |

| 3- Intended Learning Outcome | |
|---|---|
| i. Knowledge & Understanding | By the end of this course the student will be able to:<br>- Define the structure and physiology of major organelles and subcellular structures in typical eukaryotic cells.<br>- Relate structures of the plasma membrane of eukaryotic cells to their functions in signal transduction and reacting to the environment, and how errors in this process will lead to various diseases.<br>- identify fundamentals of cytoskeleton dynamics<br>- identify cell cycle and how it is regulated through the checkpoints |
| ii. Intellectual Skills | - describe Cell death including apoptosis and necrosis and their mechanisms<br>- identify basics of cancer biology including causes of cancer, properties of cancer cells, how deregulation of the cell cycle, escaping normal apoptotic mechanisms will lead to cancer, differences between benign and malignant tumors. |

| | | |
|---|---|---|
| iii. | Practical & Professional Skills | - use biology lab and conduct dissection to develop tactile sensation |
| iv. | General & Transferable Skills | - Encourage good representation and self-determination.<br>- Enhance team work and cooperation. |

4- Course Content

- Microscopes and cells-The Cell Theory (Types, structure and function of microscopes. Steps of sample preparation for LM, Steps of sample preparation for EM, Cell theory and Cellular organization)
- The Cell membrane (Biochemical structure of cell membrane, Functions of cell membrane, Mechanisms of transport across cell membranes)
- Cell Signaling (Intercellular communication explaining how cells communicate and coordinate, Signal transduction, Receptors structure and function, Regulation of receptors function)
- The cytoplasm -The cytoskeleton (Components of the Cytoplasm, Cytoskeleton structure and function, Cytoplasmic filaments, Microtubules, Examples for organelles made out of cytoplasmic filaments and microtubules)
- The Endoplasmic reticulum-The Ribosomes (Rough endoplasmic reticulum structure and function, Smooth endoplasmic reticulum structure and function, Ribosomes types and structure, protein synthesis, Protein misfolding disorders)
- Golgi apparatus-The Lysosomes (Structure and function of Golgi, Structure and function of lysosomes, lysosomal disorders)
- The mitochondria-The nucleus (Structure and function of mitochondria, The nucleus structure ,N/C ratio, The components of the nucleus (Nucleoplasm, Chromatin and nucleolus)
- Chromosomes, DNA and RNA (Chromosome functions shape and structure, Chromosome types, Chromosome numbers and Karyotyping, DNA and RNA structure)
- Cell cycle (Phases of cell cycle, Types of cell division, Mitotic division and its stages, Cell cycle control and check points )
- Cell aging-cell death (Basics and characteristics of cell aging, Cell death by necrosis morphological changes and mechanism, Cell death by apoptosis morphological changes and mechanism, importance of apoptosis)
- Introduction to cancer biology (Definition of cancer, Benign vs. malignant, Basic properties of cancer cells, Causes of cancer, Cancer classification)

5- Learning & Teaching Strategies

Power point presentations, Black board classic explanations, Discussions, students interaction and Laboratory for practical classes.

6- Learning & Teaching Strategies for Students under Probation

- Learning & Teaching Strategies for Students under Probation
- Offering extra hours for them , extra quizzes and personal assistance

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - hours final exam to assess the theoretical core,<br>- hour mid -term exam and<br>- written quizzes done 2 times for continuous evaluation,<br>- lab practical exam. |
| ii. Assessment Schedule | - Mid-term exam after the fifth lecture<br>- Final exam at the end of the course. |
| iii. Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 10%<br>Clinical Exam 30%<br>End of Semester Written Exam 50%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | MSA lecture notes |
| ii. Reference Textbooks | - Karp G. (2007): Cell and Molecular Biology Concepts and Experiments, fifth edition, Wiley, NJ.<br>- Murray RK.Granner DK., Rodwell VW. (2006): Harpers illustrated Biochemistry, twenty-seventh international edition, Lange medical publications, Singapore. |
| iii. Suggested Reading Reference | |
| iv. ...Useful websites,…..etc. | wikipedia.org/wiki/Wikipedia |

Preclinical Stage; First Semester

Course Outline

**Course Code**: SGS 115n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Botany

**Department:** Department of Botany, Faculty of Science, Cairo University

**Course Coordinator**: Dr Mahmoud Samy Hamoud

**Level**: 1 **Credit Hours**: 2

**Prerequisites**: None

| 2- Objective of Course |
|---|
| This course includes morphology, physiology, anatomy, microscopic structure of plant cell, and functions of its various integral parts. As well as a systematic study of different viruses, bacteria and fungi. The practical course includes microscopic studies regarding the internal structural of plants, bacterial and fungal specimens, and conducting several physiological experiments as well to elucidate some processes taking place in plants. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | This course intends to help first level Dentistry student to:<br>- Understand the basics of plant biology.<br>- Describe the basic plant cell components and their functions.<br>- Identify some viral, fungal, bacterial diseases and antibiotics.<br>- Recognize the basics of several physiological processes. |
| ii. Intellectual Skills | - Analysis skills.<br>- Brain storming skills.<br>- Troubleshooting and problem solving skills. |
| iii. Practical & Professional Skills | - Use microscopes and examine microscopic specimens.<br>- Conduct scientific experiments.<br>- Understand the concept of a biology lab and its regulations. |
| iv. General & Transferable Skills | - Think scientifically.<br>- Solve problem.<br>- Learn about lab safety regulations.<br>- Achieve sterile appropriate lab conditions while working. |

4- Course Content

- Morphology:
  Morphology of a typical seed plant.
  Dicot seeds (*Vicia faba & Phaseolus vulgaris*).
  Monocot seed (*Zea mays*).
- Anatomy:
  Microscope.
  Plant cell structure.
  Living components and non- living components of the cell.
- Systematic botany:
  viruses
  Bacteria (morphology, cell wall structure, staining, bacterial diseases).
  Fungi (structure, classification and fungal diseases).
  Introduction to antibiotics.
- Plant physiology:
  Colloids.
  Osmosis.
  Enzymes.
  Respiration.

5- Learning & Teaching Strategies

- Lectures to explain the underlying principles.
- Labs to apply these principles practically.

6- Learning & Teaching Strategies for Students under Probation

Providing extra classes, extra revision, and personal assistance.

7- Student Assessment

| | |
|---|---|
| i. Assessment Schemes : | - Weekly written quizzes for continuous assessment.<br>- Midterm exam.<br>- Practical exam (to test the student's ability to identify certain plant structures, different forms of bacteria and fungi, as well as conducting different physiological experiments).<br>- Three hour final exam assess the student's theoretical knowledge. |

| | | |
|---|---|---|
| ii. | Assessment Schedule: | - Quizzes: weekly throughout the semester at the end of each chapter.<br>- Midterm exam<br>- Practical exam<br>- Final written exam<br>- Final exam: end of term |
| iii. | Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 10%<br>Clinical Exam 30%<br>End of Semester Written Exam 50%<br>Total 100% |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Note | - Introductory Botany notes.<br>- Practical Botany notes. |
| ii. | Reference Textbooks | - Plant Biology by Linda E. Graham, Jim M. Graham, Lee W. Wilcox. |
| iii. | Suggested Reading Reference | - Student study guide for Campbell's biology (The Benjamin/Cummings series in the life sciences). |
| iv. | Useful websites,…..etc. | - www.sciencedirect.com |

Preclinical Stage; First Semester

Course Outline

**Course Code**: SGS 116n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Mathematics and Statistics

**Department:** Department of Physics, Faculty of Engineering, MSA

**Course Coordinator**: Dr Mohamed El Saeid

**Level**: 1 **Credit Hours**: 1

**Prerequisites**: None

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| | |
|---|---|
| 2- Objective of Course: | This course is designed to introduce students to some basic mathematical concepts such as differentiation and integration, and to enhance their ability to treat biological problems as well as their ability to present, analyze and interpret data using tables and graphs. Also, the objective of the course is to expose the students to elements of probability and probability distributions, linear regression and correlation, analysis of variance, design of statistical experiments, and statistical quality control. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | - Understand graphs and how to find their equations.<br>- Deal with integration in solving biological and dentistry problems.<br>- Apply statistical techniques in biological and dentistry situations. |
| ii. Intellectual Skills: | |
| iii. Practical & Professional Skills: | - Ability to read scientific papers.<br>- Ability to comprehend epidemiological studies.<br>- Ability to apply mathematical and statistical expressions for application problems. |
| iv. General & Transferable Skills: | |

| | |
|---|---|
| 4- Course Content: | - Review of basic essential concepts such as real numbers, Cartesian coordinates in a plane, circles, straight lines, parabolas, trigonometric functions, and exponential and logarithmic functions.<br>- Differentiation, derivatives of functions, rules of differentiation, rates of change, analysis of functions (curve sketching), and derivatives of trigonometric and exponential functions. Integration, indefinite and definite integrals.<br>- Introduction to statistics, probability, random variables and probability distributions.<br>- Mathematical expectation, mean of a random variable, variance (standard deviation)<br>- Discrete probability distribution, normal distribution. |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles. |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes: | Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>Three hours final exam to test their theoretical core knowledge. |
| ii. Assessment Schedule | |
| iii. Assessment Pattern: | In Course Quizzes 20%<br>Mid-term Exam 20%<br>End of Semester Written Exam 60%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | None |

| | |
|---|---|
| ii. Reference Textbooks | - Author:George B. Thomas, Ross L. Finney1998, Calculus and Analytical Geometry, 9th ed. Publisher :Addison Wesley Longman<br>- Author: R. Walpole, R. Myers, and S. Myers1998, Probability and Statistics, for Engineers and Scientists, 6th ed. Publisher:Prentice Hall<br>- Author :H. Anton, I. Bivens, and S. Davis 2002, Calculus 7th ed. Publisher John Wiley & Sons, |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | Software Requirements<br><br>Useful Websites |

Preclinical Stage; First Semester

Course Outline

**Course Code**: HPT 111n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Descriptive Dental Anatomy and Physiology

**Department:** Histopathology Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Dr.Tarek El Esawy

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: None

| 2- Objective of Course |
|---|
| This course is designed to provide the dental student with the necessary knowledge to define introductory dental terminology. Recognize the functions of the human teeth and utilize the correct names and universal code numbers of each permanent and deciduous tooth. The course also provides the student with the general and specific features of permanent anterior teeth and premolars. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | Upon completing this course, students will be able to:<br>- Clearly define the basic dental terminology, the names, numbers and types of teeth and dentition by arch, quadrant, anterior/posterior.<br>- Reveal and use the different types of tooth numbering system(s) used in different international dental clinics.<br>- Describe the macro and micro anatomic features of the human teeth and the different human dentition periods.<br>- Describe the anatomical features of the different types of the human permanent anterior teeth and premolars.<br>- Discuss the relation between geometric outlines of the teeth surfaces and their significance<br>- Recognize the criteria of the human mandibles at different ages. |
| ii. Intellectual Skills | - Identify, compare and contrast between the human permanent teeth.<br>- Figure out the relation of form to function of the human dentition.<br>- Decide when and where can use the tooth numbering system(s). |

| | | |
|---|---|---|
| iii. | Practical & Professional Skills | - Draw and carve the human permanent teeth.<br>- Develop and improve the manual dexterity and carving skills of the student enabling him to perform most of waxing-up tasks in succeeding years. |
| iv. | General & Transferable Skills | - Encourage good representation and self-determination.<br>- Transfer confidence to promote solutions to the scientific issues that impact the health of the public.<br>- Improve the student's awareness to not neglect any minute details that may be of great importance in treatment of a patient.<br>- Enhance team work and cooperation. |

## 4- Course Content

- Introduction for the dental terminology (permanent and deciduous teeth and the oral tissues).
- Numbering system of teeth (permanent and deciduous teeth).
- Macro and microanatomy of teeth.
- Functions of teeth.
- Surface anatomy of teeth and nomenclature (Division into thirds, line and point angles).
- Anatomical features of the crown (Elevations and depressions).
- Surface anatomy of permanent teeth, (Anterior teeth, Premolars) and their The pulp cavities.
- Geometrical outline of the crown.
- Mandible at different ages.

## 5- Learning & Teaching Strategies

- Lectures to explain underlying principles.
- Lab to apply the drawing and carving principles practically.
- Laboratory requirements will be formally scheduled.

## 6- Learning & Teaching Strategies for Students under Probation

Provide extra classes, more revision, and Personal Assistance

## 7- Student Assessment

| | | |
|---|---|---|
| i. | Assessment Schemes | - MCQs, Matching, T&F, Short assay, Drawings, spotting exams for continuous in-course assessment.<br>- Practical lab exam to test their manual dexterity and carving abilities.<br>- Oral exam to assess their communication and understanding skills.<br>- Written exam to assess students' core theoretical knowledge.<br>- Research and presentation to assess their personality and allow the students to participate in the process of learning and discovery (to enhance the quality of research). |
| ii. | Assessment Schedule | - Quizzes: 3 throughout the semester.<br>- Midterm exam<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term |
| iii. | Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 20%<br>Practical Exam 20%<br>End of Semester Written Exam 50%<br>Total 100% |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | Handouts that covers the whole curriculum of the course. |
| ii. | Reference Textbooks | Wheeler's Dental Anatomy, Physiology and Occlusion. Stanley J Nelson 9th ed. 2009 |
| iii. | Suggested Reading Reference | Woelfel s Dental Anatomy: Its Relevance to Dentistry, John Goucher 7th ed. 2007 |
| iv. | Useful websites,…..etc. | |

Preclinical Stage; First Semester

Course Outline

**Course Code**: ENG 111b

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: English Language

**Department:** Faculty of Languages, MSA

**Course Coordinator**: Professor Aziza Hafez

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: None

| 2- Objective of Course |
|---|
| The aim of the course is to enable students to write a fully developed five-paragraph academic essay with different rhetorical modes while being able to edit their writing to improve their writing skills. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | the end of this course, students should be able to<br>- write a 5 paragraph academic essay<br>- depict and correct different writing errors<br>- write an academic summary |
| ii. Intellectual Skills | By the end of this course, students should be able to<br>- distinguish between different types of essays<br>- analyze and correct writing errors |
| iii. Practical & Professional Skills | By the end of this course, students should be able to<br>- produce ideas to write on any given topic<br>- produce a well- developed academic essay<br>- assess their writing |
| iv. General & Transferable Skills | By the end of this course, students should be able to<br>- Use technology to study their lessons, search for knowledge and present their work.<br>- Communicate in English language. |

| 4- Course Content |
|---|

| | |
|---|---|
| - Structure of the Traditional Essay | Chapter 1 |
| - First and Second Steps in Writing an Essay | Chapter 2 and 3 |
| - Introductions, Conclusions and titles of the essay | Chapter 4 |
| - Handbook of sentence skills: Fragments | Chapter 24 |
| - Handbook of sentence skills: Run-on sentences | Chapter 25 |
| - Four Bases for Revising Essays | Chapter 6 |
| - Handbook of sentence skills: Subject-verb agreement | Chapter 26 |
| - Handbook of sentence skills: Pronoun Agreement and Reference | Chapter 27 |
| - Process Essay | Chapter 11 |
| - Writing a summary | Chapter 18 |
| - Handbook of sentence skills: Misplaced and Dangling Modifiers | Chapter 28 and 29 |
| - Classification Essay | Chapter 15 |
| - Cause and Effect Essay | Chapter 12 |

| 5- Learning & Teaching Strategies |
|---|
| - lectures<br>- discussion sessions<br>- applying information to written work |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Teacher-student conferences<br>- Extra hours |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Assignments to assess understanding and intellectual skills (a1, a2,a3,b1,b2)<br>- Quiz one to assess some intellectual skills (b1,b2)<br>- Mid-term Exam to assess understanding and intellectual skills (a1,a2,a3,b1,b2,c1,c2)<br>- Quiz two to assess intellectual and professional skills (b1,b2,c1,c2) |
| ii. Assessment Schedule | - Assessment 1 assignments Weeks (2,3,4,5,7,8,9,10,11)<br>- Assessment 2 Quiz One Week Six<br>- Assessment 3Mid-Term Exam Week Seven<br>- Assessment 4 Quiz Two Week Twelve<br>- Assessment 5 Final Exam Week 13 |

| | | |
|---|---|---|
| iii. | Assessment Pattern | Mid-term examination 20 %<br>Final-term examination 40%<br>Quizzes 10 %<br>Assignments 25 %<br>Class Activities and discussion 5 %<br>Total 100% |

| | | |
|---|---|---|
| 8- | List of References | |
| i. | Handouts & Lecture Notes | Handouts contain various critical essays and editing exercises |
| ii. | Reference Textbooks | College Writing Skills with Readings – 8th edition – John Langan – McGraw Hill International Edition – ISBN: 978-0-07-122158-0 |
| iii. | Suggested Reading Reference | - Elements of Language 4th edition – Holt and Rienhart<br>- Writing Academic English 4th edition, Oshima A., Hogue, A. Longman 2006<br>- Ready to Write. Blanchard, K., Root, Christine. Longman 2002 |
| iv. | Useful websites,…..etc. | www.edhelper.com<br>www.gradesaver.com<br>www.Ebscohost.com |

Preclinical Stage; First Semester

Course Outline

**Course Code**: CSD 100

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Computer Science

**Department:** Faculty of Computer Science, MSA

**Course Coordinator**: Professor Ismail H. Abdel-Fattah

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: None

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| | |
|---|---|
| 2- Objective of Course: | This course is designed to introduce the student to the basic skills and to familiarize him/her with the efficient use of computers, including devices and widely used applications. Familiarity with microcomputer platform with emphasis on Windows environment is a must. Use of the Internet and navigation capabilities with practical practice on how to search for information through the internet is explored. Training on popular computer application packages, namely Microsoft Office including word processor, spreadsheet, presentation, graphics and database is carried out. The course also serves as an introduction to computer-related terminology and concepts. |
| 3- Intended Learning Outcomes : | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Understand computer-related terminology and concepts.<br>- Investigate the internal components of a microcomputer system.<br>- Investigate different types of peripheral devices and secondary storage devices, and computer networks.<br>- Understand common software concepts. |
| ii. Intellectual Skills: | |
| iii. Practical & Professional Skills: | - Ability to search the net efficiently and use different software packages for presentation and office skills.<br>- Ability to use computers in different applications. |
| iv. General & Transferable Skills: | |

| | |
|---|---|
| 4- Course Content | Syllabus**:**<br>- A brief overview of the information society, networking, computer essentials, microcomputers to supercomputers, capabilities and uses, a computer system at work.<br>- Inside computers: Details about data storage, encoding system, analyzing a computer system, describing the processor (distinguishing characteristics) inside the PC (system board – buses – cards)<br>- Common software concepts, purposes and objectives of an operating system, understanding the relationship between computer and programming languages, distinguishing between several different types of programming languages and visual programming, distinguishing between different platforms.<br>- Storing and retrieving information, secondary storage files, sequential and direct access, magnetic disks, magnetic tapes and other optical laser disks.<br>- Input/Output devices, traditional input devices, source-data automation, output devices and terminals.<br>- Computer networks, a brief overview of data communications hardware, data highways, network topologies and local area network. |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Computer lab sessions. |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams.<br>- Lab test to assess their skills in different computer applications.<br>- Project to test their abilities in producing an integrated computer programme.<br>- Three hours final exam to test their core knowledge about computers and their uses. |
| ii. Assessment Schedule: | Final Term Exam |
| iii. Assessment Pattern: | In Course Tests and Quizzes 40%<br>Mid-Semester Exam 20%<br>End of Semester Written Exam 40%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | None |

| | |
|---|---|
| ii. Reference Textbooks | - J. Glenn Brookshear 2004,Computer Science: An Overview, 8th ed.by Addison Wesley<br>- Ruth Maran 2000,Computers Simplified, 5th ed. by Wiley<br>- Larry Long; Nancy Long. 1997, Computers, 5th ed by Prentice Hall |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | Software Requirements<br><br>Useful Websites |

Preclinical Stage; Second Semester

Course Outline

**Course Code**: SGS 121

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Organic Chemistry

**Department:** Department of Chemistry, MSA

**Course Coordinator**: Professor Hanaa Mostafa Rihan

**Level**: 1 **Credit Hours**: 4

**Prerequisites**: None

| 2- Objective of Course |
|---|
| The course introduces dental students to the fundamentals of organic chemistry, the use of organic compounds in medicine, dentistry and polymers. It prepares students to study, understand, advanced courses in biochemistry, dental material and pharmacology. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | Upon completion of the course, students will be able to:<br>- Name and identify different classes of organic compounds.<br>- Understand the uses of these compounds in dentistry and the relationship between structure and function of every class of organic compounds. |
| ii. Intellectual Skills | - Explain mechanisms of some important chemical reactions.<br>- Solve read map questions |
| iii. Practical & Professional Skills | - Preparation of aspirin and oil of winter green and some esters (both preparation were done by groups of students during labs.<br>- Identify qualitatively every class of organic compounds based on experimental results.<br>- Perform experiments in the laboratory safely and learn how to collect data, write results and make conclusion based on these results. |
| iv. General & Transferable Skills | - Understand the safety regulations in chemical laboratory.<br>- Appreciate the importance of organic chemistry in the modern biology and biochemical sciences. |

| 4- Course Content |
|---|
| - Review of topics in physical and inorganic chemistry that is important to understand organic chemistry, such as acids, bases, electronegativity, hydrogen bonding, covalent and polar covalent bonding and polarity.<br>- Alkanes, alkenes, cycloalkanes and alkynes.<br>- Aromatic compounds and aromaticity.<br>- Stereochemistry (structural geometrical and optical)<br>- Alcohols, thiols and phenols.<br>- Ethers, oxiranes.<br>- Aldehydes and ketones.<br>- Organic acids and derivatives.<br>- Introduction to carbohydrates.<br>- Introduction to lipids. |

| 5- Learning & Teaching Strategies |
|---|
| Use of models, Lectures, labs, self-test exams |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| The department gives more extra hours for those they need help. |

| 7- Student Assessment | | |
|---|---|---|
| i. | Assessment Schemes | Lab quizzes, theoretical quizzes (two quizzes /semester) , midterm and pop quizzes.<br>Three-hour final written exam to assess students' core theoretical knowledge. |
| ii. | Assessment Schedule | |
| iii. | Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 10%<br>Practical Exam 30%<br>End of Semester Written Exam 50%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | Self-test exercise& text book for the course |
| ii. Reference Textbooks | - Hart, Crain and Hart" organic chemistry a short course Ninth Edition" Hounghten - Hifflin Company Boston (1995). ISBN:0-395-70835-9<br>- Bailey, Jr. and Bailey" organic chemistry A Brief Survey Fifth Edition" Prentice Hall. Inter (1998) ISBN:0-534-35215-4 |
| iii. Suggested Reading Reference | - McMurry " Fundamentals Of Organic Chemistry fourth Edition" brocks/ Cole Company (1998)<br>ISBN: 0-534-35215-4 |
| iv. Useful websites,…..etc. | http://scholar.google.com.eg/scholar?start=10&q=+books++fundamental+organic+chemistry&hl=ar&as_sdt=0,5&as_vis=1 |

Preclinical Stage; Second Semester

Course Outline

**Course Code**: PRS 121n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Basic Dental Materials

**Department:** Department of Dental Materials, MSA

**Course Coordinator**: Professor Dr. Dina Mostafa

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: SGS 111, SGS 112n, SGS 113

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| | |
|---|---|
| 2- Course Aim | - The chemical, physical and biological properties of dental materials as related to their applications in different branches of dentistry.<br>- Types of materials available, their selection and manipulation, and the recognition of the effects of proper and improper manipulation on both the intermediate and the final products.<br>- The properties of dental materials relative to clinical restorative and prosthetic dentistry. (same as no. 1)<br>- Proper selection and manipulation of dental materials based on their properties and clinical performance. (same as no. 2) |
| 3- Intended Learning Outcomes | |
| i. Knowledge & Understanding: | - Understand the physical, mechanical and biological properties of dental materials.<br>- Identify the different structure of metals, ceramics and polymers.<br>- Understand of the basic properties of metals, alloys, polymers and ceramics.<br>- Define and recognize the different types of adhesion in dentistry. |
| ii. Intellectual Skills: | - Compare and contrast between basic dental materials.<br>- Relate between the properties and their dental implication.<br>- Discuss in groups the different basic materials and their importance in the dental field. |
| iii. Practical & Professional Skills: | - Select the appropriate dental material for a specific task.<br>- Identify the different dental materials and restorations. |
| iv. General & Transferable Skills: | - Encourage self-confidence.<br>- Implement team work habits. |

| | |
|---|---|
| 4- Course Content: | - Introduction<br>- Structure of matter<br>- Physical properties related to dental materials.<br>- Mechanical properties related to dental materials<br>- Principles of adhesion<br>- Concepts of polymers<br>- Metallurgy<br>- Tarnish and Corrosion |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Lab to apply those principles practically. |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their practical skills and manual dexterity.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours' final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | - Quizzes during the course of the term<br>- Exam at the midterm<br>- Practical exam before the final exam<br>- Final exam at the end of the term<br>- Oral exam at the end of the term |
| iii. Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 20%<br>Clinical Exam 20%<br>End of Semester Written Exam 50%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | Basic knowledge in dental materials |
| ii. Reference Textbooks | - Kenneth J. Annusavice 2012, Annusavice Phillip's Science of dental materials, 12th edition by Saunders<br>- Ronald L. Sakaguchi. John M. Power, 2011 Graig's Restorative dental materials by C.V. Mosby |

| | |
|---|---|
| iii. Suggested Reading Reference | - Marcia Gladwin, Michael D. Bagby 2012, Clinical Aspects of Dental Materials, 3rd ed.<br>- William J. Jobrien 2014, Dental Materials and their Selection, 4th ed.<br>- Robert G., Craig, John M. Powers, John C. Wataha 2012, Dental Materials, Properties and Manipulation, 10th ed. |
| iv. Useful websites,…..etc. | http://e-learning.msa.edu.eg |

Preclinical Stage; Second Semester

Course Outline

**Course Code**: SGS 122n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Histology

**Department:** General Histology Department

**Course Coordinator**: Professor Safinaz Salah El Din

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: SGS 114

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|---|---|
| 2- Objective of Course | The main objective of this course is to define and understand the functional structure of cells and the basic tissues of the human body and its clinical significance and application., and to inform the students about the different histological tools and techniques |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | I. Understanding (by the end of the semester the student should be able to understand:<br>- How the body is organized.<br>- the ultrastructure of the cell<br>- The general characters and classifications of epithelial tissue.<br>- The general characters and classifications of connective tissue.<br>- That cartilage, bone and blood are special type of connective tissue.<br>- the clinical significance of each element of the blood<br>- the main difference between different types of muscle<br>- the concept of the neuron as the structural and functional unit of nervous tissue<br>II. Knowledge (by the end of the semester the student should gain the following knowledge)<br>- Know major types of microscopes and stains<br>- Know the main functional structure of the different components of the cell<br>- Know the main functions and sites for each type of epithelium.<br>- Know the main functional structure and sites for each type of connective tissue<br>- Know the main functional structure and sites for each type of cartilage and bones<br>- Know the different counts of blood elements<br>- Know the functional structure of skeletal muscles<br>- Know the histological structure and types of neurons |

| | |
|---|---|
| ii. Intellectual Skills: | Skills (by the end of the semester the students should learn the following skills):<br>- Learn skills of using light microscope<br>- Learn skills of identifying and drawing the cell components at LM & EM levels<br>- Learn skills of identifying each type of epithelium at LM levels, and Learn skills of drawing colored diagrams of each type of epithelium at LM level<br>- learn skills of identifying section in umbilical cord (mucous C.T.) and adipose connective tissue, and Learn skills of drawing colored diagram of adipose connective tissues<br>- learn skills of identifying sections in hyaline and elastic cartilage at LM level and learn skills of drawing colored diagram of hyaline cartilage at LM<br>- Learn skills of identifying sections in compact bone and spongy at LM level and Learn skills of drawing colored diagrams in sections of compact bone at LM level<br>- Learn skills of identifying leucocytes in blood film.<br>- Learn skills of identifying sections in skeletal muscles, Learn skills of drawing colored diagrams in sections of skeletal muscles<br>- Learn skills of identifying sections in nerve trunk, and Learn skills of drawing colored diagrams of sections in nerve trunk. |
| iii. Practical & Professional Skills: | Skills (by the end of the semester the students should learn the following skills):<br>- Learn skills of using light microscope<br>- Learn skills of identifying and drawing the cell components at LM & EM levels<br>- Learn skills of identifying each type of epithelium at LM levels, and Learn skills of drawing colored diagrams of each type of epithelium at LM level<br>- learn skills of identifying section in umbilical cord (mucous C.T.) and adipose connective tissue, and Learn skills of drawing colored diagram of adipose connective tissues<br>- learn skills of identifying sections in hyaline and elastic cartilage at LM level and learn skills of drawing colored diagram of hyaline cartilage at LM<br>- Learn skills of identifying sections in compact bone and spongy at LM level and Learn skills of drawing colored diagrams in sections of compact bone at LM level<br>- Learn skills of identifying leucocytes in blood film.<br>- Learn skills of identifying sections in skeletal muscles, Learn skills of drawing colored diagrams in sections of skeletal muscles<br>- Learn skills of identifying sections in nerve trunk, and Learn skills of drawing colored diagrams of sections in nerve trunk |
| iv. General & Transferable Skills: | |
| 4- Course Content: | - Introduction and basics of Micro techniques<br>- The human Cell |

| | |
|---|---|
| | - Epithelial Tissue<br>- Connective tissue (including, Connective tissue proper, Cartilage, Bone and The Blood)<br>- Muscular Tissue<br>- Nervous Tissue |
| 5- Learning & Teaching Strategies: | **Teaching/Learning Strategies**<br>There are effective teaching and learning, informed by a shared, strategic view of learning and the selection of appropriate teaching methods; and due attention is paid to the encouragement of independent learning.<br>**Teaching and learning opportunities:**<br>**Lecture room**<br>Seats for 50 – 80 students (not more!), well illumination and ventilation, Black board (Classic), Data show facilities and PC connected to the internet, audio-visual system<br>**Methods of teaching**<br>Power point presentations, Animations, PDF files, Black board classic explanations<br>Discussions, seminars critical reviewing, interaction, Students search and presentations and exhibition<br>**Laboratory for practical classes**,<br>Benches with electric supply for 20-30 students (not more), 30 student – research binocular microscopes, 4 Multi-nocular demonstration microscopes for teaching and demonstration. Video screen or TV system for explanation to many students. 30 complete set of histology sections slides, and EM photographs.<br>**Methods of teaching**<br>Microscopic examination, Drawing of colored diagrams.<br>Discussions, seminars critical reviewing, interaction,<br>Students search and presentations and exhibition |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment | |
| i. Assessment Scheme | "There is an appropriate range of assessment methods that enables the students to demonstrate the attainment of intended learning outcomes."<br>"The students are well-informed on the criteria by which they are assessed and given appropriate, structured feedback that supports their continuing learning."<br>Continuous assessments quizzes and Mid Term Examination and Final examination for<br>Evaluation of achievements of all the ILOs and objectives, MCQs, Matching, T&F, Short assay, Drawings, spotting |

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|---|---|
| ii. Assessment Schedule | Learning Unit Contact Hours<br>Per week:<br>Lectures 2 hours<br>Lab 2 hours<br>Total class contact hours per semester 30<br>Total practical contact hours per semester 30<br>Total study hours per semester 60<br>Total Credit hours 3 |
| iii. Assessment Pattern | In course tests and quizzes 10%<br>Midterm exam 10%<br>Practical exam 20%<br>Oral exam 10%<br>End of semester written exam 50%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | Basics of functional and clinical Histology for Dental students, Ayman Ghallab (MSA book) |
| ii. Reference Textbooks | - Young, B. and Heath, J.W. (2000): Wheater's Functional Histology. A Text and Colour Atlas. Fourth edition. Churchill Livingstone. London<br>- Ghallab, A.M. (2004): Introduction to Functional and Clinical Histology. Text and Atlas. Part I And Part II. Fifth edition, El-Meleagy Press, I.S.B.N. 977-00-9296-7, Academic Bookshop, Dokki. Giza, Egypt. |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | **Recommended Web sites:**<br>http://www.meddean.luc.edu/lumen/MedEd/Histo/frames/histo_frames.htmlhttp://cal.vet.upenn.edu/histo/, http://dmoz.org/Science/Biology/Histology/, http://www.bartleby.com/107/, http://www.histology-world.com/, http://www.histology-world.com/links/linkc.htm, |

Preclinical Stage; Second Semester

Course Outline

**Course Code**: SGS 123n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Medical Microbiology

**Department:** Microbiology Department, Faculty of Pharmacy, MSA

**Course Coordinator**: Professor Zeinab Abdel Khalek

**Level**: 1 **Credit Hours**: 2

**Prerequisites**: SGS 115

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|---|---|
| 2- Objective of Course: | The course enables the student to understand how micro-organisms live and infect humans, and how humans respond to these infections in order to preserve health. The first part of the course presents basic microbial structure, function and genetics and principles of chemotherapy and drug resistance. The second part presents mammalian host defences and the molecular basis of immunity. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge and Understanding: | - Describe and name micro-organisms, especially those of the oral cavity.<br>- Understand the mechanism of infectious disease transmission.<br>- Understand the defence mechanism against infectious micro-organisms. |
| ii. Intellectual skills | |
| iii. Practical and Professional Skills: | - Identify microbes of the oral cavity.<br>- Practice sterilisation procedures.<br>- Choose the proper antimicrobial agents for infectious diseases. |
| iv. General and Transferable Skills: | |
| 4- Syllabus: | - Basic microbial structure.<br>- Microbial genetics.<br>- Drug resistance.<br>- Human defence mechanisms. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Lab to apply those principles practically. |
| 6- Learning & Teaching Strategies for Students under Probation | Provide extra classes, more revision, and Personal Assistance |

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| 7- Student Assessment: | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their ability to identify different human tissues and cell types.<br>- Oral exam to assess their communication skills and analytical abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Pattern: | In Course Tests and Quizzes: 10%<br>Midterm Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50%<br>**Total** **100%** |
| 8- List of References: | |
| i. Handouts & Lecture Notes | None |
| ii. Reference Text: | - Philip Marsh, Michael V Martin 1999, Oral Microbiology, 4th ed by Butterworth-Heinemann<br>- Lakshman P. Samaranayake 2002, Essential Microbiology for Dentistry by Churchill Livingstone |
| iii. Supplementary Readings: | |
| iv. Useful websites,…..etc. | Software Requirements<br><br>Useful Websites |

Preclinical Stage; Second Semester
Course Outline

**Course Code**: SGS 124n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Principles of Genetics

**Department:** Botany Department, Faculty of Science, Cairo University.

**Course Coordinator**: Dr Ahmed Aref

**Level**: 1 **Credit Hours**: 1

**Prerequisites**: None

| 2- Objective of Course |
|---|
| The field of genetics is currently being revolutionized and has been brought to the forefront of biology. Opportunities provided by the human genome project to understand the genetic aspects of disease and to generate novel approaches to prevent, diagnose, and manage diseases have created new imperatives for basic science and clinical education in dentistry. The course aims to provide students with a strong basic knowledge of two major areas of genetics: molecular genetics and cytogenetic, this course helps students appreciate the recent advances in the field of molecular diagnosis of human disease and the biotechnological revolution. Also, It provides them with the basic knowledge needed in understanding genetically based syndromes. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | By the end of this course the student will be able to:<br>- Demonstrate the patterns of inheritance in humans including Mendelian and non-Mendelian modes of inheritance.<br>- Describe the structure, function, types and replication of DNA as the genetic material.<br>- Describe gene structure, expression and regulation and how dysregulation can cause diseases.<br>- identify cancer genetics |
| ii. Intellectual Skills | - distinguished the clinical applications of modern genetic techniques (e.g. PCR , karyotyping ) |
| iii. Practical & Professional Skills | - Describe the chromosomal basis of inheritance and how alterations in chromosome number or structure may arise during meiosis will lead to genetic diseases.<br>- Identify different types of mutations and how it will lead to diseases. |
| iv. General & Transferable Skills | - Describe the potential uses of human genome project data.<br>- Aware of major ethical issues in genetics. |

| 4- Course Content |
|---|
| - Mendelian inheritance includes exceptions to Mendel laws:Co-dominance and incomplete dominance,<br>- cell division and reproduction, meiosis ,<br>- human chromosomes, DNA and RNA structure and types, DNA replication,<br>- the genetic code, Gene expression and regulation, mutations and chromosomal basis of diseases ,<br>- diagnostic techniques used in genetics,<br>- stem cells and their clinical applications,<br>- Human genome project and Cancer genetics. |

| 5- Learning & Teaching Strategies |
|---|
| Power point presentations, Black board classic explanations, Discussions, students interaction discussions. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Offering extra hours for them , extra quizzes and personal assistance |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - hours final exam to assess the theoretical core,<br>- 1 hour mid -term exam<br>- Written quizzes done 3 times for continuous evaluation. |
| ii. Assessment Schedule | - Mid-term exam after the fifth lecture<br>- Final exam at the end of the course |
| iii. Assessment Pattern | In Course Quizzes 20%<br>Mid-term Exam 20%<br>End of Semester Written Exam 60%<br>Total 100% |

| 8- References | |
|---|---|
| i. Handouts & Lecture Notes | MSA lecture notes |

| | |
|---|---|
| ii. Reference Textbooks | - Jorde L., Carey J., Bamshad M., White R ( 2007): Medical Genetics , third edition , Mosby.<br>- Karp G. (2007): Cell and Molecular Biology Concepts and Experiments, fifth edition, Wiley.<br>- Turnpenny P, Ellard S.(2007): Emery's Elements of medical genetics 13th edition. Churchill Livingstone, |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | wikipedia.org/wiki/Wikipedia |

Preclinical Stage; Second Semester

# Course Outline

**Course Code**: HPT 121n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Descriptive Dental Anatomy and Physiology

**Department:** Histopathology Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Dr. Tarek El Esawy

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: HPT 111n

## 2- Objective of Course

This course is designed to provide the dental student with the necessary knowledge to describe the anatomical features of human permanent molars, differentiate between deciduous and permanent teeth. This includes the accurate dental terminology used when discussing the general and specific features of the deciduous teeth. The course will also provide the dental student with the basic knowledge about centric occlusion and its relationship to the different mandibular movements.

## 3- Intended Learning Outcomes

| | |
|---|---|
| i. Knowledge & Understanding | Upon completing this course, students will be able to:<br>- Describe the anatomical features of the different types of the human permanent molars<br>- Describe and illustrate the basic anatomical features of the human deciduous teeth.<br>- Differentiate between the human deciduous and permanent teeth.<br>- Develop an increased awareness of the tooth form and its clinical importance to protect the periodontium.<br>- Estimate the age of a person according to basic knowledge of human teeth chronology and mandibular changes during aging.<br>- Describe the normal centric occlusion and its relation to the different mandibular movements. |
| ii. Intellectual Skills | - Identify and differentiate between the human deciduous teeth.<br>- Compare and differentiate between the human permanent and deciduous teeth.<br>- Distinguish and reveal the relation of form and teeth arrangement to function of the human dentitions. |
| iii. Practical & Professional Skills | Improve the acquired manual skills of the students enabling him to perform most of waxing up tasks in succeeding years |

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|---|---|---|
| iv. | General & Transferable Skills | - Encourage good representation and self-determination.<br>- Transfer confidence to promote solutions to the scientific issues that impact the health of the public.<br>- Improve the student's awareness to not neglect any minute details that may be of great importance in treatment of a patient.<br>- Enhance team work and cooperation. |

| 4- Course Content |
|---|
| - Permanent molars<br>- Differences between deciduous and permanent teeth.<br>- Description of the anterior deciduous teeth.<br>- Description of the posterior deciduous teeth.<br>- Physiologic tooth form protecting the periodontium.<br>- Teeth at different ages.<br>- Dental arch formation and compensatory curves of the dental arches.<br>- Occlusion of permanent teeth (Facial and lingual relations of each tooth in one arch to its antagonists in the opposing arch in centric occlusion).<br>- Human masticatory cycles. |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures to explain underlying principles.<br>- Lab to apply the drawing and carving principles practically.<br>- Laboratory requirements will be formally scheduled. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Provide extra classes, more revision, and Personal Assistance |

| 7- Student Assessment | | |
|---|---|---|
| i. | Assessment Schemes | - MCQs, Matching, T&F, Short assay, Drawings, spotting exams for continuous in-course assessment.<br>- Practical lab exam to test their manual dexterity and carving abilities.<br>- Oral exam to assess their communication and understanding skills.<br>- Written exam to assess students' core theoretical knowledge.<br>- Research and presentation to assess their personality and allow the students to participate in the process of learning and discovery (to enhance the quality of research). |

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|---|---|---|
| ii. | Assessment Schedule | - Quizzes: 3 throughout the semester .<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term |
| iii. | Assessment Pattern | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 20%<br>Clinical Exam 20%<br>End of Semester Written Exam 50%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | Handouts that cover the whole curriculum of the course will be distributed at the beginning of the semester. |
| ii. Reference Textbooks | Wheeler's Dental Anatomy, Physiology and Occlusion. Stanley J Nelson 9th ed. 2009 |
| iii. Suggested Reading Reference | Woelfel s Dental Anatomy: Its Relevance to Dentistry, John Goucher 7th ed. 2007 |
| iv. Useful websites,…..etc. | |

Preclinical Stage; Second Semester

Course Outline

**Course Code**: DEL 121n
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: Dental Ethics and Legal Aspects
**Department:** Faculty of Dentistry, MSA
**Course Coordinator**: Professor Mohamed Anwar
**Level**: 1 **Credit Hours**: 1
**Prerequisites**: None

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|---|---|
| 2- Objective of Course: | The course provides the dental student with an introduction to the basic knowledge of theories of ethics, various models of decision making and major contemporary health care issues and dilemmas facing dental practitioners. Legal aspects of health care and State Dental Act Regulations will be studied. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | - Have a basic understanding about ethics and how they apply to dental practice.<br>- Understand the legal aspects of practicing dentistry.<br>- Understand the practical and ethical considerations that should be taken into account when seeking patients' consent.<br>- Be competent at maintaining full, accurate clinical records.<br>- Have knowledge of responsibilities of consent, duty of care and confidentiality.<br>- Have knowledge of patients' rights.<br>- Be fully cognizant with the obligation to practice in the best interests of the patient at all times.<br>- Have knowledge of the regulatory functions of the Egyptian Dental Syndicate.<br>- Understand the legal and ethical obligations of dentists registered with the Egyptian Dental Syndicate. |
| ii. Intellectual Skills: | |
| iii. Practical & Professional Skills: | - Ability to apply ethical principles in daily dental practice.<br>- Ability to communicate with legal authorities and personnel. |
| iv. General & Transferable Skills : | |

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|---|---|
| 4- Course Content: | - Introduction to the theories of ethics.<br>- Decision making.<br>- Major contemporary health care issues.<br>- Legal aspects of dentistry.<br>- State Dental Act Regulations.<br>- Syndicate Regulations of Practice of Dentistry in Egypt.<br>- State Act Regulating Dental Laboratories.<br>- State Act Regulating Dental Internship. |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles. |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes: | Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>Oral exam to test their communication skills and understanding of the subject matter.<br>Two hours final exam to assess their theoretical knowledge. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course Tests and Quizzes 20%<br>Mid Term Exam 20%<br>End of Semester Written Exam 60%<br>**Total** **100%** |
| 8- List of References: | |
| i. Handouts & Lecture Notes | None |
| ii. Reference Textbooks | - David T. Ozar, David J. Sokol 2002, Dental Ethics at Chairside: Professional Principles and Practical Applications Georgetown University Press<br>- State Dental Act 1973, Law No 13 for 1973 Regarding Medical Professions Syndicates Egyptian Dental Syndicate<br>- Syndicate Regulations of Practice of Dentistry in Egypt 1969, Rules and Regulations for Practicing Dentistry in Egypt. Egyptian Dental Syndicate |
| iii. Suggested Reading Reference | |

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| iv. Useful websites,…..etc. | Software Requirements<br><br>Useful Websites |

Preclinical Stage; Second Semester

Course Outline

**Course Code**: ENG 102d

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: English Language

**Department:** Faculty of Languages, MSA

**Course Coordinator**: Professor Aziza Hafez

**Level**: 1 **Credit Hours**: 3

**Prerequisites**: ENG 111b

| 2- Objective of Course |
|---|
| The main aim of this module is to develop the skills necessary to support academic reading and writing to enable students to engage in their chosen degree programme. This module builds on skills learners acquire in ENG101Module |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | By the end of this course, students should be able to<br>- paraphrase, summarize and analyses and synthesize texts from a variety sources to incorporate in their writings<br>- Memorise appropriate vocabulary to ensure academic register and style<br>- Select on-line material for writing an essay<br>- Interpret data used for writing essays<br>- draw an outline and prepare a draft for an academic essay |
| ii. Intellectual Skills | By the end of this course, students should be able to<br>- Apply note taking skills from a variety sources<br>- Choose topics for writing an extended essay<br>- Prepare and discuss research findings.<br>- Classify data used for writing<br>- use grammar effectively to produce appropriate academic writing<br>- Compare and contrast similarities and differences in concepts |
| iii. Practical & Professional Skills | By the end of this course, students should be able to<br>- Develop reading and writing skills<br>- Develop critical thinking skills using a variety of sources<br>- Produce formal academic essays following conventions of academic writing<br>- Analyze research findings and classify data |

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| | - Criticize author's point of view<br>- Consider Solutions for Problems and discuss limitations of previous solutions |
| iv. General & Transferable Skills | By the end of this course, students should be able to<br>- Evaluating On-line sources<br>- Collecting data through diverse resources<br>- Incorporate data in an academic essay<br>- Read a variety of texts<br>- Use referencing styles to document sources<br>- Prepare a Power point presentation |

4- Course Content

- Introduction to the course
  1. Course objectives
  2. Classroom policy
  3. Grading scheme and coursework
- Diagnostic writing
- Generic feedback on diagnostic writing
- Revision of essay structure
- Reading skills
- Inference-Evidence (PPT + Exercises)
- Reading 1: Boys will be boys + exercises
- Reading 1: Boys will be boys
- Exercise on Inference-Evidence
- Writing Process
- Avoiding plagiarism
  a. Definition
  b. Reasons
  c. How to avoid plagiarism: Summarizing, Paraphrasing and Quoting; in-text citation
- Introduction to Assignment#1: Review of Articles
  a. Avoiding plagiarism
  b. How to avoid plagiarism
- In-text citation and exercises
- Note-taking
- Integration of sources (PPT)
- Discussion of the Reading (2)
- Midterm Exam Trail
- Generic Feedback on midterm trail
- Feedback on Assignment 1
- Problem-solution essay
- Task sheet of the term paper
- Narrowing down a topic
- Evaluation of Sources
- Orientation to on-line search engines (EbscoHost, Google Scholar)
- Sample Problem solving essay to be discussed in class.
- Full Citation

- Introducing the APA manual
- Feedback on sources
- Persuasive Techniques
- Turnitin Orientation
- Presentation Skills
- Final Exam Trail
- Feedback on Test 2
- Feedback on first draft of problem-solution essay
- Oral Presentation
- Revision

| 5- Learning & Teaching Strategies |
|---|
| - Lectures<br>- discussion sessions<br>- information collection from different sources<br>- research assignment |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Extra tutorials<br>- Exercises that Address students' different needs especially grammatical and sentence structure recurrent errors |

| 7- Student Assessment | |
|---|---|
| i. Student Assessment | - Assignments to assess understanding and intellectual skills<br>- Mid-term Exam to assess understanding and intellectual skills<br>- Research and presentation to assess intellectual, general and<br>- transferable skills<br>- Final-Exam (comprehensive) to assess intellectual and professional skills |
| ii. Assessment Schedule | - Assessment 1 Writing assignment One. Weeks (5)<br>- Assessment 2 Mid-Term Exam Week (8)<br>- Assessment 3 Term Paper Week (10)<br>- Assessment 4 research presentation Week |

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| iii. | Assessment Pattern | Writing Assessment 1 10%<br>Term Paper 20%<br>Oral Presentation 10%<br>Mid Term20%<br>Final Exam 40%<br>Total 100% |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | Handouts and other supplementary material |
| ii. | Reference Textbooks | Gardner, Peter S. *New Directions: Reading, Writing and Critical Thinking*. (2nded.). Cambridge: Cambridge University Press, 2005 |
| iii. | Suggested Reading Reference | Blass, L., Friesen, H. & Block, K. (2008). *Creating meaning: advanced reading and writing*. Oxford: Oxford University Press |
| iv. | Useful websites,…..etc. | www. Ebscohost.com |

Preclinical Stage; Third Semester

# Course Outline

**Course Code**: PRS 231n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Properties of Dental Materials

**Department:** Department of Dental Materials, MSA

**Course Coordinator**: Professor Dr.Randa El Sellawy

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: PRS 121

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| 2- Course Aim | This course covers:<br>- The application of the basic knowledge of the different structural, physical, mechanical, and biological properties on the contemporary laboratory dental materials.<br>- The laboratory procedures for different dental materials. |
| 3- Intended learning outcomes | |
| i. Knowledge and Understanding: | - Understand the physical, mechanical and biological properties of laboratory dental materials.<br>- Describe and explore the principles of proper selection of dental materials.<br>- Understand the proper manipulation of different laboratory dental materials.<br>- Explore the basis of laboratory materials and procedures.<br>- Identify the properties of modern laboratory dental materials to select and use the appropriate materials for the treatment of different laboratory cases. |
| ii. Intellectual Skills | - Solve problems related to the use of laboratory dental materials.<br>- Distinguish the different defects that may occur in the laboratory dental materials.<br>- Compare between the technique sensitivity of dental materials |
| iii. 3-Practical and Professional Skills: | - Ability to select the appropriate laboratory dental material for a specific task<br>- Enhance the manual dexterity in mixing and manipulating laboratory dental materials. |
| iv. General and Transferable Skills: | - Improve awareness of teamwork<br>- Build confidence and encourage critical thinking<br>- Encourage good representation and self determination |

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| 4- Syllabus: | - Model and Die Materials<br>- Investment Materials<br>- Impression Materials<br>- Casting Technology<br>- Joining of Metals<br>- Wrought Dental wires<br>- Dental Casting Alloys |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Labs to apply those principles practically. |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their practical skills and manual dexterity.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours' final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | - Quizzes during the course of the term<br>- Exam at the midterm<br>- Practical exam before the final exam<br>- Final exam at the end of the term<br>- Oral exam at the end of the term |
| iii. Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 20%<br>End of Semester Written Exam 50%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | None |

| | |
|---|---|
| ii. Reference Textbooks | - Kenneth J. Annusavice 2012, Annusavice Phillip's Science of dental materials, 12th eddition by Saunders<br>- Ronald L. Sakaguchi. John M. Power 2011, Graig's Restorative dental materials by C.V. Mosby |
| iii. Suggested Reading Reference | - Marcia Gladwin, Michael D. Bagby 2012,Clinical Aspects of Dental Materials, 3rd ed. by Lippincott Williams & Wilkins<br>- William J. Jobrien 2014, Dental Materials and their Selection, 4th ed. by Quintessence Publishing<br>- Robert G., Craig, John M. Powers, John C. Wataha 2012,Dental Materials, Properties and Manipulation, 10th ed. by C.V. Mosby |
| iv. Useful websites,…..etc. | http://e-learning.msa.edu.eg |

Preclinical Stage; Third Semester

# Course Outline

**Course Code**: SGS 232n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Histology

**Department:** General Histology Department, Faculty of Medicine, Cairo Univ.

**Course Coordinator**: Professor Safinaz Salah El Din

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: SGS 122

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| 2- Objective of Course | Histology is the study of the normal detailed structure of the body as a result of microscopic examination. Dental students must master the subject of Histology because only by doing so they will be able to understand how different tissues function. It is important to emphasize that what they are learning in Histology will have significant applications to their later clinical work.<br>So, the main objective of this course is to define and understand the functional structure of some organs and system the human body and its clinical significance and application. |
| 3- Intended Learning Outcomes | |
| i. Knowledge & Understanding | by the end of each semester the student should be able to:<br>- Understand the general structure of blood vessels.<br>- Understand the general structure of skin.<br>- Identify the epithelial lining and covering of the mouth<br>- Discuss general distribution of salivary gland and its function.<br>- Understand the difference between pancreas and salivary glands<br>- Understand the general architecture of liver and pituitary gland<br>- Understand the histological structure of suprarenal and thyroid glands<br>- Understand the different types of cells of the reticuloendothelial system.<br>- Discuss the functional structure of lip , tongue., pancreas , hepatocytes and pituitary gland |
| ii. Intellectual Skills | (by the end of the semester the students should be able to<br>- Differentiate between sections of blood vessels<br>- Differentiate between sections in lymph node, spleen and tonsils.<br>- Differentiate between sections in thick and thin skin.<br>- Appreciate how widely distributed is the reticuloendothelial system.<br>- Estimate the general similarity and differences between different lymphatic organs<br>- identify the concept of the endocrine secretions |

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| iii. Practical & Professional Skills | - Identifying and drawing sections in aorta, artery and vein.<br>- Identifying and drawing sections in lymphatic organs<br>- Enumerate RES cells<br>- Identifying and drawing sections in thick skin.<br>- Drawing colored diagrams of lip and tongue and different types of papillae<br>- Drawing sections in salivary glands,<br>- identifying s of drawing sections in, pancreas<br>- identifying s of drawing sections in, liver<br>- identifying and drawing of Pituitary gland<br>- identifying and drawing sections in thyroid and parathyroid glands |
| iv. General & Transferable Skills: | |
| 4- Course Content | Syllabus<br>- Vascular system<br>- Lymphatic system<br>- Reticuloendothelial system<br>- Skin<br>- Digestive system I (Oral Cavity)<br>- Digestive system II (Glands, Salivary, Pancreas, Liver)<br>- Endocrine Glands (Pituitary, Suprarenal, Thyroid, Parathyroid) |
| 5- Learning & Teaching Strategies: | - Teaching/Learning Strategies<br>There are effective teaching and learning, informed by a shared, strategic view of learning and the selection of appropriate teaching methods; and due attention is paid to the encouragement of independent learning.<br>- Teaching and learning opportunities:<br>- Lecture room<br>Seats for 50 – 80 students (not more!), well illumination and ventilation, Black board (Classic), Data show facilities and PC connected to the internet, audio-visual system<br>- Methods of teaching<br>Power point presentations, Animations, PDF files, Black board classic explanations<br>Discussions, seminars critical reviewing, interaction, Students search and presentations and exhibition<br>Laboratory for practical classes,<br>Benches with electric supply for 20-30 students (not more), 30 student – research binocular microscopes, 4 Multi-nocular demonstration microscopes for teaching and demonstration. Video screen or TV system for explanation to many students. 30 complete set of histology sections slides, and EM photographs.<br>- Methods of teaching<br>Microscopic examination, Drawing of colored diagrams. Discussions, seminars critical reviewing, interaction, Students search and presentations and exhibition |
| 6- Learning & Teaching Strategies for | |

| | |
|---|---|
| Students under Probation: | |
| 7- Student Assessment | |
| i. Assessment Scheme | - "There is an appropriate range of assessment methods that enables the students to demonstrate the attainment of intended learning outcomes."<br>- "The students are well-informed on the criteria by which they are assessed and given appropriate, structured feedback that supports their continuing learning."<br>- Continuous assessments quizzes and Mid Term Examination and Final examination for<br>- Evaluation of achievements of all the ILOs and objectives, MCQs, Matching, T&F, Short assay, Drawings, spotting |
| ii. Assessment Schedule: | Learning Unit Contact Hours Per week:<br>- Lectures 2 hours<br>- Lab 2 hours<br>- Total class contact hours per semester 30<br>- Total practical contact hours per semester 30<br>- Total study hours per semester 60<br>- Total Credit hours 3 |
| iii. Assessment Pattern: | In course tests and quizzes 10%<br>Midterm exam 10%<br>Practical exam 20%<br>Oral exam 10%<br>End of semester written exam 50%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | Basics of functional and clinical Histology for Dental students, Ayman Ghallab (MSA book) |
| ii. Reference Textbooks | Young, B. and Heath, J.W. (2000): Wheater's Functional Histology. A Text and Colour Atlas. Fourth edition. Churchill Livingstone. London<br>Ghallab, A.M. (2004): Introduction to Functional and Clinical Histology. Text and Atlas. Part II And Part II. Fifth edition, El-Meleagy Press, I.S.B.N. 977-00-9296-7, Academic Bookshop, Dokki. Giza, Egypt. |
| iii. Suggested Reading Reference | |

| | | |
|---|---|---|
| iv. | Useful websites,…..etc. | Recommended Web sites:<br><br>http://www.meddean.luc.edu/lumen/MedEd/Histo/frames/histo_frames.html,<br>http://cal.vet.upenn.edu/histo/,<br>http://dmoz.org/Science/Biology/Histology/,<br>http://www.bartleby.com/107/, http://www.histology-world.com/,<br>http://www.histology-world.com/links/linkc.htm, |

Preclinical Stage; Third Semester

Course Outline

**Course Code**: SGS 233n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Medical Microbiology

**Department:** Microbiology Department, Faculty of Pharmacy, MSA

**Course Coordinator**: Professor Zeinab Abdel Khalek

**Level**: 2 **Credit Hours**: 2

**Prerequisites**: SGS 123

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|---|---|
| 2- Objective of Course: | The course enables the student to understand how micro-organisms live and infect humans, and how humans respond to these infections in order to preserve health. This course presents basic microbial structure, function and genetics and principles of chemotherapy and drug resistance. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge and Understanding: | - Describe and name micro-organisms, especially those of the oral cavity.<br>- Understand the mechanism of infectious disease transmission.<br>- Understand the defence mechanism against infectious micro-organisms.<br>- Understand the basics of immunity and its relation to diseases of the oral cavity. |
| ii. Intellectual skills | |
| iii. Practical and Professional Skills: | - Ability to identify microbes of the oral cavity.<br>- Ability to practice sterilisation procedures.<br>- Choose the proper antimicrobial agents for infectious diseases. |
| iv. General and Transferable Skills: | |
| 4- Syllabus | - Basic microbial structure.<br>- Microbial genetics.<br>- Drug resistance.<br>- Human defence mechanisms. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Lab to apply those principles practically. |
| 6- Learning & Teaching Strategies for | Provide extra classes, more revision, and Personal Assistance |

| | |
|---|---|
| Students under Probation | |
| 7- Student Assessment: | |
| i. 1-Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their ability to identify various micro-organisms.<br>- Oral exam to assess their communication skills and understanding of the subject matter.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | |
| iii. Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50%<br>**Total** **100%** |
| 8- List of References: | |
| i. Handouts & Lecture Notes | None |
| ii. Reference Textbooks | Reference Text:<br>- Philip Marsh, Michael V Martin 1999, Oral Microbiology, 4th ed by Butterworth-Heinemann<br>- Lakshman P. Samaranayake 2002, Essential Microbiology for Dentistry by Churchill Livingstone |
| iii. Suggested Reading Reference | Supplementary Readings |
| iv. Useful websites,…..etc. | Software Requirements<br><br>Useful Websites: |

Preclinical Stage; Third Semester

Course Outline

**Course Code**: HPT 231n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Biology, Oral Histology and Embryology

**Department:** Department of Histopathology, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Dr.Tarek El Esawy

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: SGS 122n

| 2- Objective of Course |
|---|
| This course is designed to provide the dental student with current, basic knowledge of the development, structure and function of the tooth and para tooth soft and hard tissues. The mechanisms of organic matrix formation and mineralization of hard dental tissues. The age changes of hard and soft dental and Para dental tissues. Integrate the histological structures of the tooth hard and soft tissues with their genesis and development. Also to correlate these histological structures with their clinical applications. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | Upon completing this course, students will be able to:<br>- Understand the importance of the developmental process and the structural specialization of the cells and tissues during tooth development.<br>- Identify and describe the histological structures of the tooth and para tooth hard and soft tissues.<br>- Understand the mechanism of both matrix formation and mineralization of tooth hard tissues.<br>- Know the age changes that occur in the dental tissues and the basic mechanisms to repair and regenerate. |
| ii. Intellectual Skills | - Identify and compare between the different methods of histological section.<br>- Identify and differentiate between the different histological structures of the dental and Para dental tissues.<br>- Figure out the relationship of the histological structure of the dental and Para dental tissues to their functions.<br>- Critically evaluate the relation between the histological structure of the tooth hard tissue and their genesis. |
| iii. Practical & Professional Skills | - Able to use the light microscope.<br>- Draw a histological diagram for what he did identify under the microscope. |

| | | |
|---|---|---|
| iv. | General & Transferable Skills | - Encourage good representation and self-determination.<br>- Transfer confidence to promote solutions to the scientific issues that impact the health of the public.<br>- Improve the student's awareness to not neglect any minute details that may be of great importance in treatment of a patient.<br>- Enhance team work and cooperation. |

| 4- Course Content |
|---|
| - Tooth development.<br>- Enamel histology and development (genesis).<br>- Dentin histology and development (genesis).<br>- Cementum histology and development (genesis).<br>- Pulp histology and functions.<br>- Periodontal ligament histology and physiology.<br>- Age changes of dental and Para dental tissues.<br>- Bone and alveolar process structure and physiology. |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures to explain underlying principles.<br>- Lab to apply the use of the light microscope and drawing's principles practically.<br>- Laboratory requirements will be formally scheduled. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Provide extra classes, more revision, and Personal Assistance |

| 7- Student Assessment | | |
|---|---|---|
| i. | Assessment Schemes | - MCQs, Matching, T&F, Short assay, Drawings, spotting exams for continuous in-course assessment.<br>- Practical lab exam to test their manual dexterity and carving abilities.<br>- Oral exam to assess their communication and understanding skills.<br>- Written exam to assess students' core theoretical knowledge.<br>- Research and presentation to assess their personality and allow the students to participate in the process of learning and discovery (to enhance the quality of research). |

| | | |
|---|---|---|
| ii. | Assessment Schedule | - Quizzes: 3 throughout the semester.<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term |
| iii. | Assessment Pattern | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 20%<br>Clinical Exam 20%<br>End of Semester Written Exam 50%<br>Total 100% |

| | | |
|---|---|---|
| 8- | List of References | |
| i. | Handouts & Lecture Notes | Handouts that covers the whole curriculum of the course will be distributed at the beginning of the semester. |
| ii. | Reference Textbooks | Ten Cate's: Oral Histology, Development, Structure and Function. A.R. Ten Cate 8th ed. 2013 |
| iii. | Suggested Reading Reference | - Anatomy of Orofacial Structures. Richard Brand, Donald E. Isselhard, Elain Stain.7 th ed . 2013<br>- Essentials of Oral Histology and Embryology: a Clinical Approach.James K. Avery 3 rd ed. 2006 |
| iv. | Useful websites,…..etc. | |

Preclinical Stage; Third Semester

# Course Outline

**Course Code**: SGS 234n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Anatomy

**Department:** Anatomy Department

**Course Coordinator**: Professor Soheir Hanafy Ahmad

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: SGS 114n

## 2- Objective of Course

This course planned to provide comprehensive knowledge about the basic structure of the human body and its clinical significance that provides a strong foundation for future studies. It deals with human morphology in a systematic approach that starts with the cellular level of organization followed by tissue, organ and system levels.

## 3- Intended Learning Outcomes

| | | |
|---|---|---|
| i. | Knowledge & Understanding | - Understand a clear idea about the different disciplines of anatomy, the anatomical terms of positions and movements and the different tissues of the body.<br>- Understand and describe the structure and functions of the different systems of the human body with reference to the clinical significance of each. |
| ii. | Intellectual Skills | - Identify different body structures, different systems and organs of the human body.<br>- Enhance the manual and surgical skills of the student.<br>- Encourage the student of the processes of self-learning. |
| iii. | Practical & Professional Skills | - Teaching the student how to deal with the human body.<br>- Correlation between structure and function of different organs and systems of the body. |
| iv. | General & Transferable Skills | - Understanding and integration between anatomy and different subjects learned. |

| 4- Course Content |
|---|
| - Anatomical position planes and anatomical terminology<br>- Skin, superficial and deep fascia, characteristics and functions<br>- Bones: functions, classification, structure, blood supply and development<br>- Skeleton: different bones of appendicular and axial skeletons<br>- Joints: articular system with examples. Study of important joints of the body<br>- Muscular tissue and system. Study of important muscles of the trunk and limbs<br>- Nervous system; central, peripheral and Autonomic nervous system and Special senses<br>- Cardiovascular and lymphatic systems<br>- Respiratory system<br>- Digestive system<br>- Urinary and genital systems<br>- Glandular system and hormonal balance<br>- Nervous system |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures to explain underlying principles.<br>- Practical sessions in the Dissecting room to visualize those principles. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - The Department offer extra time and special effort for those students to ensure complete understanding the subject. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Quiz Exam (MCQ Exam; One best answer)<br>- Practical Exam (20 stations)<br>- Mid Term Exam (written Exam; long and short essay questions)<br>Oral Exam<br>- Final Exam (written Exam; long and short essay questions) |
| ii. Assessment Schedule | - Quiz Exam: 6th week<br>- Practical Exam: 12th week<br>- Mid Term Exam: 7th Week<br>- Oral Exam: After the final exam |

| | | | |
|---|---|---|---|
| iii. | Assessment Pattern | In Course Quizzes<br>Mid-term Exam<br>Practical Exam<br>Oral Exam<br>End of Semester Written Exam<br><br>Total | 10%<br>10%<br>20%<br>10%<br>50%<br><br>100% |

| | | |
|---|---|---|
| 8- | List of References | |
| i. | Handouts & Lecture Notes | |
| ii. | Reference Textbooks | - Martin E. Atkinson Latest Edition Anatomy for dental students by C.V. Mosby<br>- Johannes W. Rohen Chihiro Yokochi, Elke Lutjen-Drecoll Latest Edition Color Atlas of Anatomy: A Photographic Study of the Human Body Lippincott by Williams & Wilkins<br>- Richard. L. Drake; Wayne Vogl; Adam W.M. Mitchell Latest Edition Gray's Anatomy for Students by Churchill Livingstone<br>- Frank H. Netter Latest Edition Head and Neck Anatomy for Dentistry Lippincott by Williams & Wilkins |
| iii. | Suggested Reading Reference | - Richard Brand, Donald E. Isselhard, Elaine Satin Latest Ed. Anatomy of Orofacial Structures<br>- Richard S. Snell Latest Ed. Clinical anatomy |
| iv. | Useful websites,…..etc.... | |

Preclinical Stage; Third Semester

Course Outline

**Course Code**: SGS 235n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Physiology

**Department:** Physiology Department

**Course Coordinator**: Professor Maher Naguib

**Level**: 2 **Credit Hours**: 4

**Prerequisites**: SGS 114n

| 2- Objective of Course |
|---|
| This course focuses on introducing the student to the basics of how the human body functions. Emphasis will be placed on understanding physiological principles. Each body system is reviewed with reference to function and its role in the balanced mechanisms that control homeostasis. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | Upon completing this course, students will be able to:<br>- Understand the basic physiological functions of the human body.<br>- Have a deep understanding of the different human body systems and how they interact.<br>- Appreciate the relationship of physiological phenomena with the oral cavity. |
| ii. Intellectual Skills | |
| iii. Practical & Professional Skills | - Ability to conduct simple physiology experiments.<br>- Ability to apply this knowledge to simple clinical procedures such as recording blood pressure, recognizing normal heart sounds and reading a normal ECG. |
| iv. General & Transferable Skills | Encourage good representation and self-determination.<br>- Transfer confidence to promote solutions to the scientific issues that impact the health of the public.<br>- Enhance team work and cooperation. |

| 4- Course Content |
|---|
| - Body Fluids and Blood.<br>- Autonomic nervous system.<br>- Kidney<br>- Endocrines.<br>- Cardiovascular system. |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures to explain underlying principles.<br>- Lab to apply the drawing and carving principles practically.<br>- Laboratory requirements will be formally scheduled. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Provide extra classes, more revision, and Personal Assistance |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | <u>Assessment Scheme:</u><br>- MCQs, Matching, T&F, Short assay, Drawings, spotting exams for continuous in-course assessment.<br>- Practical lab exam to test their abilities in performing simple physiology experiments.<br>- Oral exam to assess their understanding of the functioning of the human body, their communication skills and problem-solving abilities.<br>- Written exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Quizzes: 3 throughout the semester.<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term |

| | | | |
|---|---|---|---|
| iii. | Assessment Pattern | In Course Quizzes | 10% |
| | | Mid-term Exam | 10% |
| | | Practical Exam | 20% |
| | | Oral Exam | 10% |
| | | End of Semester Written Exam | 50% |
| | | Total 100% | |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | Handouts that covers the whole curriculum of the course. |
| ii. | Reference Textbooks | - Arthur C. Guyton, John E. Hall, W. F. Ganong, 2005, Textbook of Medical Physiology, 11th Ed. W.B. Saunders<br>- Hema Pispati 2003, Concise Textbook of Physiology for Dental Students OUP India<br>- William F Ganong 2001, Review of Medical Physiology McGraw Hill sion, and Personal Assistance |
| iii. | Suggested Reading Reference | |
| iv. | Useful websites,…..etc. | |

Preclinical Stage; Third Semester

# Course Outline

**Course Code**: SGS 236n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Biochemistry

**Department:** Biochemistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Mohamed Farouk

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: SGS 121

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| 2- Objective of Course: | This course records an outline of the molecular mechanisms fundamental to the life processes. It defines the way in which reactions take place at the cellular level thus underlining the background against which the changes due to disease can be viewed. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | At the end of the semester the student should be able to:<br>- recognize the concepts of pH and buffering and types of solutions.<br>- define the basic structures of the major biochemical components, to understand the way in which their structure is related to function.<br>- The proteins of the extracellular matrix.<br>- understand the relationship between membrane structure and function, membrane transport.<br>- recognize the concepts of enzyme catalysis. |
| ii. Intellectual Skills: | The student will be able to:<br>- Interpret the observations of chemical tests to identify unknown sugar or protein solutions.<br>- Point out the significance of determination of serum levels of glucose and total proteins |
| iii. Practical & Professional Skills: | - Perform some basic chemical tests to identify unknown sugar or protein solutions. |
| iv. General & Transferable Skills: | By the end of the course the students will be able to<br>- work effectively in a group in lab,<br>- practice the basic biochemical tests<br>- be motivated for self-learning. |

| | |
|---|---|
| 4- Course Content | Syllabus:<br>- Properties of solutions<br>- Principles of biomedical importance:<br>o Acid base balance<br>o Physiological buffers<br>- Carbohydrate chemistry:<br>o Classification & Structure<br>o Monosaccharides: Cyclisation<br>- Glycoside formation<br>o Reducing property<br>o Derivatives<br>o Importance of some monosaccharides<br>- -Disaccharides<br>- Polysaccharides: Homopolysaccharides & Heteropolysaccharides<br>- Lipid chemistry<br>- Protein chemistry<br>- Collagen<br>- Hemoglobin<br>- Cell membrane<br>- Enzymes |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Lab to apply those principles practically. |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their practical skills and manual dexterity.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | - Quizzes: 3 throughout the semester.<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term |

| | |
|---|---|
| iii. Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50%<br><br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | Chemistry of Biomolecules |
| ii. Suggested Reading Reference | Reference Text:<br>- Pamela C Champe, Richard A Harvey, Denise R Ferrier 2013 Lippincott`s Illustrated Reviews: Biochemistry 6th ed. Lippincott Williams & Wilkins ( LWW; Sixth, North American Ed., May 24, 2013)<br>- Robert Murray, David Bender, Kathleen M. Botham, Peter J. Kennelly, Victor Rodwell, P. Anthony Weil2012 Harper's Illustrated Biochemistry 29th ed McGraw-Hill Medical |
| iii. Suggested Reading Reference | Supplementary Readings:<br>- David L.Nelson, Michael M. Cox 2012, Lehninger Principles of Biochemistry 6th ed. By W.H. Freeman & |
| iv. Useful websites,…..etc. | http://e-learning.msa.edu.esg |

Preclinical Stage; Fourth Semester

Course Outline

**Course Code**: RES 241n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Preclinical Conservative and Esthetic dentistry

**Department:** Clinical Conservative and Esthetic dentistry

**Course Coordinator**: Professor Faten Kamel

**Level**: 2 **Credit Hours**: 2

**Prerequisites**: HPT 121n; PRS 231n

| 2- Objective of Course |
|---|
| Upon completing this course, students will be able to:<br>- Understand the meaning, scope and objective of operative dentistry.<br>- Apply the mechanical and biological principles of cavity preparation.<br>- Identify the different carious and non carious lesions.<br>- Identify and memorize the hand and rotary cutting instruments |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Define the meaning, scope and objective of operative dentistry.<br>- Identify the carious and non carious lesions.<br>- Memorize the different classification of caries.<br>- Distinguish the prepared cavity nomenclature<br>- Memorize the principles of cavity preparation<br>- Describe the hand and rotary cutting instruments. |
| ii. Intellectual Skills | - Compare between carious and non carious lesions. |
| iii. Practical & Professional Skills | - Differentiate between the different carious lesions.<br>- Prepare simple class I on gypsum and plastic teeth using rotary cutting instruments<br>- Prepare compound class I on gypsum and plastic teeth using rotary cutting instruments<br>- Identify the hand and rotary instruments used in operative dentistry. |
| iv. General & Transferable Skills | - The student operate in artificial teeth under supervision and evaluation of the department lecturer and teaching assistant |

| 4- Course Content |
|---|
| - Definition, scope and objective of operative dentistry.<br>- Cavity classification and nomenclature.<br>- Carious and non carious lesions.<br>- Instrument and instrumentation.<br>- Principles of cavity preparation. |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures and tutorials<br>- Lab sessions with life demonstration and videos of all the practical steps.<br>- Brainstorming methods, group discussion, photographs and readings. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Knowing their deficiencies and working on it by communicating with their families giving them extra hours and quizzes, putting them under supervision and monitoring his/ her advance |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes and exams.<br>- Practical Lab exam to test their manual dexterity and skills in cavity preparation and filling.<br>- Oral discussion and exams to assess their communication skills and problem-solving abilities. |
| ii. Assessment Schedule | - Quizzes and oral discussion are held in the lab and lecture<br>- 1 hour Miderm and 3 hours final written exam, oral and practical exams |
| iii. Assessment Pattern | In Course Quizzes 10%<br>Mid-term Exam 20%<br>Practical Exam 30%<br>End of Semester Written Exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | MSA University book and lecture power point presentation. |

| | | |
|---|---|---|
| ii. | Reference Textbooks | - Sturdevant's Art and Science of Operative Dentistry, Roberson TM, Heymann HO & Swift EJ, sixth edition,. Mosby Inc.<br>- Fundamentals of Operative Dentistry, a Contemporary approach. Summit JB, Robbins JW & Schwartz RS, fourth edition. Quintessence Publishing Co, Inc.<br>- Dental Caries: The Disease and its Clinical Management 3rd Edition |
| iii. | Suggested Reading Reference | Essentials of operative dentistry, latest edition<br>Textbook of Operative Dentistry, latest edition |
| iv. | Useful websites,…..etc. | Ebscohost, journal of operative dentistry |

Preclinical Stage; Fourth Semester

Course Outline

**Course Code**: PRS 241n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Applied Dental Materials

**Department:** Department of Dental Materials, MSA

**Course Coordinator**: Professor Dr. Dina Mostafa

**Level**: 2 **Credit Hours**: 2

**Prerequisites**: PRS 231n

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|---|---|
| 2- Course Aim | This course covers:<br>- The application of the different structural, physical, mechanical, and biological properties on the contemporary restorative dental materials.<br>- The manipulation of the different restorative dental materials.<br>- The clinical aspects of the different restorative dental materials. |
| 3- Intended learning outcomes | |
| i. Knowledge and Understanding: | - Understand the physical, mechanical and biological properties of restorative dental materials.<br>- Describe and explore the principles of proper selection of restorative dental materials.<br>- Understand the proper manipulation of different restorative dental materials.<br>- Explore the basis of restorative materials and procedures.<br>- Identify the properties of modern restorative dental materials to select and use the appropriate materials for the treatment of different restorative cases. |
| ii. Intellectual skills: | - Choose the proper restorative dental material based on each clinical situation.<br>- Evaluate the properties of the different restorative dental materials to justify its use. |
| iii. Practical and Professional Skills | - Enhance the manual dexterity in mixing and manipulating restorative dental materials. |
| iv. General and Transferable Skills: | - Encourage self-confidence.<br>- Implement team work habits. |
| 4- Syllabus | - Dental Amalgam<br>- Non-metallic Denture base<br>- Dental Cements<br>- Direct anterior restorative Materials<br>- Ceramics |

| | |
|---|---|
| 5- Teaching / Learning Strategies | - Teaching / Learning Strategies:<br>- Lectures to explain underlying principle<br>- Labs to apply those principles practically. |
| 6- Probation Teaching / Learning Strategies | - Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their practical skills and manual dexterity.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours' final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Quizzes during the course of the term<br>- Exam at the midterm<br>- Practical exam before the final exam<br>- Final exam at the end of the term<br>- Oral exam at the end of the term |
| iii. Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 20%<br>End of Semester Written Exam 50%<br>Total 100% |
| 8- List of Reference: | |
| i. Handouts & Lecture Notes | None |
| ii. Reference Textbooks | - Kenneth J. Annusavice 2012 Annusavice Phillip's Science of dental materials, 12th eddition Saunders<br>- Ronald L. Sakaguchi. John M. Power 2011 Graig's Restorative dental materials C.V. Mosby |
| iii. Suggested Reading Reference | - Marcia Gladwin, Michael D. Bagby 2012 Clinical Aspects of Dental Materials, 3rd ed. by Lippincott Williams & Wilkins<br>- William J. Jobrien 2014, Dental Materials and their Selection, 4th ed. By Quintessence Publishing |
| iv. Useful websites,…..etc. | http://e-learning.msa.edu.eg |

Preclinical Stage; Fourth Semester

Course Outline

**Course Code**: PRS 242n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Removable Prosthodontics Technology

**Department:** Prosthodontics Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Essam Adel Aziz

**Level**: 2 **Credit Hours**: 2

**Prerequisites**: PRS 231n

| 2- Objective of Course |
|---|
| Demonstrate sound knowledge of the biological and technical aspects of complete dentures and their integration with the clinical procedures which will be taught in the succeeding clinical prosthodontic courses.<br>To be familiar with and have general knowledge about steps of complete denture.<br>Identify the different materials, instruments and devices involved in the construction of complete dentures as well as their uses. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Name clinical and laboratory steps of complete denture.<br>- List the different types of articulators and their uses.<br>- Recognize the use of face bows for mounting casts. |
| ii. Intellectual Skills | - Evaluate different materials used in lab work.<br>- Distinguish different extra oral and intra oral landmarks on a completely edentulous cast.<br>- Compare different types of articulators and face bows. |
| iii. Practical & Professional Skills | - Manipulate the mixing of different materials used in pouring the impression.<br>- Put into practice the construction of special trays used in completely edentulous cases.<br>- Put into practice the construction of occlusion blocks. |
| iv. General & Transferable Skills | |

| 4- Course Content |
|---|
| Introduction.<br>- Anatomy and physiology related to complete denture.<br>- Impression trays and types of impression.<br>- Boxing the impression.<br>- Occlusion blocks.<br>- Mandibular movements and anatomy of the TMJ.<br>- Articulators and face bows.<br>- Jaw relation record.<br>- Selection of artificial teeth.<br>- Arrangement of artificial teeth. |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures<br>- Presentations<br>- Case discussions |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Extra lecture and sessions. |

| 7- Student Assessment | | |
|---|---|---|
| i. Assessment Schemes | - Quizzes<br>- Written exam<br>- Oral exam<br>- Practical exam | |
| ii. Assessment Schedule | - Mid-term exam : mid-year<br>- Final exam : at the end of the semester<br>- Oral exam : around the final exam<br>- Quizzes : 4th and 8th week. | |
| iii. Assessment Pattern | In Course Tests and Quizzes | 10% |
| | Midterm Exam | 20% |
| | Practical Exam | 30% |
| | End of Semester Written Exam | 40% |
| | **Total** | **100%** |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | |
| ii. Reference Textbooks | - Department's Book |
| iii. Suggested Reading Reference | - Winkler, S.: Essentials of Complete Denture Prosthodontics 2008 |
| iv. Useful websites,…..etc. | |

Preclinical Stage; Fourth Semester

Course Outline

**Course Code**: SGS 242n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Pharmacology

**Department:** Pharmacology Department, Faculty of Pharmacy, MSA

**Course Coordinator**: Professor Amani El Brairy

**Level**: 2 **Credit Hours**: 2

**Prerequisites**: SGS 115n, SGS 235n

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| | |
|---|---|
| 2- Objectives: | - To provide the basic knowledge about commonly used groups of drugs affecting different body systems and their implications in therapy of disease and health promotion especially the analgesics, local anesthetics and drugs affecting bleeding.<br>- To enable students to understand the safe use of drugs as regards adverse effects, contraindications and drug interactions. |
| 3- Intended Learning Outcomes | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Discuss the pharmacokinetic, dynamic and therapeutic action of different groups of drugs affecting body systems.<br>- Recognize the rational and general guidelines of the use of drugs in special population such as pediatrics, pregnancy and lactation and in case of liver and kidney impairment.<br>- Discuss the use of life saving drugs. |
| ii. Intellectual Skills: | - Analyze the effect of drugs on biological tissues.<br>- Identify the commonly used dosage forms of the drugs found in the market.<br>- Perform different techniques of drug administration on special models. |
| iii. Practical and Professional Skills: | - Identify the mechanism of drug action on scientific bases.<br>- Predict drug responses at all levels of biological organization.<br>- Choose the proper drug/s for the proper clinical situation. |
| iv. General and Transferable Skills: | - Use current I.T. for appropriate drug database to reach information about a specific medication. |

| | |
|---|---|
| | - Appreciate the importance of life-long self-learning and show a strong commitment to it.<br>- Respect ethics related to laboratory work.<br>- Communicate properly with his/her teachers, colleagues and laboratory workers. |

| | |
|---|---|
| 4- Syllabus: | - General Pharmacology<br>- autonomic Nervous System<br>- Blood<br>- Skeletal muscle<br>- Central Nervous System<br>- General Anesthesia<br>- Local Anesthesia. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Lab to apply those principles practically. |
| 6- Learning & Teaching Strategies for Students under Probation | |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Quiz: Short assay<br>T & F(Give reasons(<br>M.C.Q. Assess Knowledge & Understanding<br>ILOs 1,2,3,7,8 & 9<br>Continuous feedback.<br>- Written Exams: Short assay<br>T & F(Give reasons(<br>Explain Assess Knowledge & Understanding<br>ILOs 1,2,3,6,7,8 & 9<br>- Practical Exams ILOs 4,5,6,12 &13<br>- Oral Exam ILOS 1,2,3,6,7,8,11&13<br>- Assignment ILOs 1,10&11 |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50% |

| | |
|---|---|
| | *Total* *100%* |
| 8- List **of** Reference | |
| i. Handouts & Lecture Notes | None |
| ii. Reference Text: | - The Pharmacological Basis of Therapeutics ,Goodman, Louis<br>- Basic and Clinical Pharmacology ,G. Katzun |
| iii. Supplementary Readings: | |
| iv. Useful Websites | Software Requirement<br>*www.medbioworld.com.cgi* |

Preclinical Stage; Fourth Semester

Course Outline

**Course Code**: HPT 241n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Biology, Oral Histology and Embryology

**Department:** Department of Histopathology, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Dr. Tarek El Esawy

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: HPT 231n

| 2- Objective of Course |
|---|
| This course is designed to provide the dental student with current, basic knowledge of the oral and Para oral tissues histology and physiology. The course will deal with the physiological events that happen in the oral cavity as; salivation, eruption and shedding and their clinical considerations. Also the course will give the basic knowledge about human embryology with special reference to the oral and Para oral tissues and organs development. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | Upon completing this course, students will be able to:<br>- Classify the oral mucous membrane according to functions and describe the histological structures of the different zones of the oral mucous membrane..<br>- Classify the salivary glands according to location, type of secretion and size and describe the histological structures of the different types of them.<br>- Understand the composition and functions of saliva.<br>- Detect and describe the different phases of tooth eruption histologically and clinically.<br>- Describe the process of shedding for deciduous teeth and their clinical significance.<br>- Describe the normal anatomy and histology of the maxillary sinus and their clinical significance.<br>- Describe the normal anatomy and histology of the TMJ.<br>- Understand the normal development of the oral and para-oral structures. |

| | |
|---|---|
| ii. Intellectual Skills | - Identify and compare the different histological structures of the oral mucous membrane.<br>- Identify and compare the different histological structures of the salivary glands.<br>- Critically evaluate the relationship of the histological structure of the oral and Para oral tissues to their functions.<br>- Identify the importance of the developmental process and the structural specialization of the cells and tissues during oral and Para oral tissues and organs development. |
| iii. Practical & Professional Skills | - Use the light microscope.<br>- Draw a histological diagram for what he did identify under the microscope. |
| iv. General & Transferable Skills | - Encourage good representation and self-determination.<br>- Transfer confidence to promote solutions to the scientific issues that impact the health of the public.<br>- Improve the student's awareness to not neglect any minute details that may be of great importance in treatment of a patient.<br>- Enhance team work and cooperation. |

## 4- Course Content

- Oral mucous membrane.
- Dentogingival junction.
- Salivary glands and saliva.
- Tooth eruption.
- Shedding of deciduous teeth.
- Anatomy and histology of maxillary sinus.
- Anatomy, histology and movements of the tempromandibular joint.
- Embryology (germ layers & branchial arches).
- Development of face and nasal cavity.
- Development of palate, tongue and salivary glands.
- Facial malformation.
- Development and growth of the mandible and maxilla.

## 5- Learning & Teaching Strategies

- Lectures to explain underlying principles.
- Lab to apply the use of the light microscope and drawing's principles practically.
- Laboratory requirements will be formally scheduled.

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Provide extra classes, more revision, and Personal Assistance |

| 7- Student Assessment | | |
|---|---|---|
| i. Assessment Schemes | - MCQs, Matching, T&F, Short assay, Drawings, spotting exams for continuous in-course assessment.<br>- Practical lab exam to test their manual dexterity and carving abilities.<br>- Oral exam to assess their communication and understanding skills.<br>- Written exam to assess students' core theoretical knowledge.<br>- Research and presentation to assess their personality and allow the students to participate in the process of learning and discovery (to enhance the quality of research). | |
| ii. Assessment Schedule | - Quizzes: 3 throughout the semester.<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term | |
| iii. Assessment Pattern | In Course Tests and Quizzes | 10% |
| | Midterm Exam | 20% |
| | Practical Exam | 20% |
| | End of Semester Written Exam | 50% |
| | **Total** | **100%** |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | Handouts that covers the whole curriculum of the course will be distributed at the beginning of the semester. |
| ii. Reference Textbooks | Ten Cate's: Oral Histology, Development, Structure and Function. A.R. Ten Cate 8th ed. 2013 |

| | | |
|---|---|---|
| iii. | Suggested Reading Reference | - Anatomy of Orofacial Structures. Richard Brand, Donald E. Isselhard, Elain Stain.7 th ed . 2013<br>- Essentials of Oral Histology and Embryology: a Clinical Approach.James K. Avery 3 rd ed. 2006 |
| iv. | Useful websites,…..etc. | |

Preclinical Stage; Fourth Semester

# Course Outline

**Course Code**: SGS 244n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Head and Neck Anatomy

**Department:** Anatomy Department, MSA University

**Course Coordinator**: Professor Soheir Hanafy Ahmad

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: SGS 234n

## 2- Objective of Course

This course is planned to provide a comprehensive study of the regional anatomy of the head and neck.

## 3- Intended Learning Outcomes

| | | |
|---|---|---|
| i. | Knowledge & Understanding | - Define and understand the different regions of Head and Neck<br>- Correlate between structure and function. |
| ii. | Intellectual Skills | - Recall, relate and interpret the anatomical knowledge with other subjects for complete understanding the clinical problems and how to manage it. |
| iii. | Practical & Professional Skills | - identify different body structures.<br>- identify different skull structures.<br>- Enhance the manual and anatomical skills of the student. |
| iv. | General & Transferable Skills | - Design management of treatment strategies of any clinical problem during practice. |

| 4- Course Content |
|---|
| - Bones of the skull, mandible and cervical vertebrae<br>- Scalp and face, Parotid region and facial nerve<br>- Infratemporal and pterygopalatine fossae, with study of T.M.J<br>- Cranial cavity and dural venous sinuses<br>- Posterior triangle of the neck with cervical and brachial plexuses<br>- Submandibular region and salivary glands<br>- Anterior triangle of the neck and its subdivisions<br>- Deep dissection of the neck thyroid gland and lower four cranial nerves<br>- Oral cavity, pharynx, larynx, and nose<br>- Arteries and veins of head and neck and Lymphatic drainage of the head and neck<br>- Nervous system and account of cranial nerves |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures to explain underlying principles.<br>- Dissecting room to visualize those principles. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| The Department offer extra time and special effort for those students to ensure complete understanding the subject. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Quiz Exam (MCQ Exam; One best answer)<br>- Practical Exam (20 stations)<br>- Mid Term Exam (written Exam; long and short essay questions) Oral Exam<br>- Final Exam (written Exam; long and short essay questions) |
| ii. Assessment Schedule | - Quiz Exam: 6th week<br>- Practical Exam: 12th week<br>- Mid Term Exam: 7th Week<br>- Oral Exam: After the final exam |

| | | |
|---|---|---|
| iii. Assessment Pattern | In Course Tests and Quizzes | 10% |
| | Midterm Exam | 10% |
| | Practical Exam | 20% |
| | Oral Exam | 10% |
| | End of Semester Written Exam | 50% |
| | **Total** | **100%** |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | Anatomy Books, MSA<br>- General Anatomy<br>- Head and Neck<br>- Questions and Answers |
| ii. Reference Textbooks | - Grays Anatomy for Students -Richard, L. Drake; Wayne Vogl; Adam W.M. Mitchell, Latest Edition Churchill Livingstone.<br>- Clinical anatomy Richard S, Snel, Latest Edition, Lippincott Williams & Wilkins.<br>- Keith Moore and Arthur F. Dalle, Latest Edition Clinically oriented anatomy Lippincott Williams & Wilkins.<br>- Color Atlas of Anatomy: A Photographic Study of the Human Body, Johannes W. Rohen, Chihiro Yokochi, Elke Lutjen-Drecoll, Latest Ed., Lippincott Williams & Wilkins |
| iii. Suggested Reading Reference | |
| i. Useful websites,…..etc. | |

Preclinical Stage; Fourth Semester

Course Outline

**Course Code**: SGS 245n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Physiology

**Department:** Physiology Department, MSA University

**Course Coordinator**: Professor Maher Naguib

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: SGS 235n

| 2- Objective of Course |
|---|
| This course focuses on introducing the student to the basics of how the human body functions. Emphasis will be placed on understanding physiological principles. Each body system is reviewed with reference to function and its role in the balanced mechanisms that control homeostasis. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | Upon completing this course, students will be able to:<br>- Understand the basic physiological functions of the human body.<br>- Have a deep understanding of the different human body systems and how they interact.<br>- Appreciate the relationship of physiological phenomena with the oral cavity. |
| ii. Intellectual Skills | |
| iii. Practical & Professional Skills | - Ability to conduct simple physiology experiments.<br>- Ability to apply this knowledge to simple clinical procedures such as recording blood pressure, recognizing normal heart sounds and reading a normal ECG. |
| iv. General & Transferable Skills | - Encourage good representation and self-determination.<br>- Transfer confidence to promote solutions to the scientific issues that impact the health of the public.<br>- Enhance team work and cooperation. |

| 4- Learning & Teaching Strategies |
|---|
| - Lectures to explain underlying principles.<br>- Lab to apply the drawing and carving principles practically.<br>- Laboratory requirements will be formally scheduled. |

| 5- Learning & Teaching Strategies for Students under Probation |
|---|
| - Provide extra classes, more revision, and Personal Assistance |

| 6- Student Assessment | |
|---|---|
| i. Assessment Schemes | <u>Assessment Scheme:</u><br><br>- MCQs, Matching, T&F, Short assay, Drawings, spotting exams for continuous in-course assessment.<br>- Practical lab exam to test their abilities in performing simple physiology experiments.<br>- Oral exam to assess their understanding of the functioning of the human body, their communication skills and problem-solving abilities.<br>- Written exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Quizzes: 3 throughout the semester.<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term |
| iii. Assessment Pattern | In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50%<br>**Total** **100%** |

| 7- List of References | | |
|---|---|---|
| i. | Handouts & Lecture TeNotes | Handouts that covers the whole curriculum of the course. |
| ii. | Reference txtbooks | - Arthur C. Guyton, John E. Hall, W. F. Ganong, 2005 Textbook of Medical Physiology, 11th Ed. W.B. Saunders<br>- Hema Pispati 2003 Concise Textbook of Physiology for Dental Students OUP India<br>- William F Ganong 2001 Review of Medical Physiology McGraw Hill |
| iii. | Suggested Reading Reference | |
| iv. | Useful websites,….etc. | |

Preclinical Stage; Fourth Semester

# Course Outline

**Course Code**: SGS 246n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Biochemistry

**Department:** Biochemistry Department, MSA University

**Course Coordinator**: Professor Mohamed Farouk

**Level**: 2 **Credit Hours**: 3

**Prerequisites**: SGS 236n

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| | |
|---|---|
| 2- Objective of Course: | This course records an outline of the molecular mechanisms fundamental to the life processes. It defines the way in which reactions take place at the cellular level thus underlining the background against which the changes due to disease can be viewed.<br>This can be used as a tool for diagnosis of disease and follow-up of treatment. Thus the student will be able to recognize the pathological phenomena, make interpretation of clinical and laboratory findings and arrange for proper management. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | The student will be able to:<br>- Recognize basic bioenergetics.<br>- Recognize the nature of intermediate metabolism and the fundamental relationships between the metabolic pathways.<br>- Define the control mechanisms operating to govern these pathways.<br>- Understand the related metabolic disorders and their clinical relevance on biochemical and clinical basis.<br>- Recognize The structure and intermediate metabolism of hemoglobin.<br>- Understand the nucleic acid intermediate metabolism.<br>- Identify the role of micronutrients (vitamins, minerals), their biochemical, clinical and laboratory importance and deficiency manifestations of each. |
| ii. Intellectual Skills: | The student will be able to<br>- Interpret a urine report.<br>- recognize the normal and abnormal levels of different biochemical markers<br>- interpret their significance to disease<br>- differentiate between different stages and types of the disease |

| | |
|---|---|
| | - set a plan for management of the disease. |
| iii. Practical & Professional Skills: | By the end of the course, students should be able to:<br>- Identify the physical and chemical characters of normal urine under different physiological conditions.<br>- Perform chemical tests to detect abnormal constituents of urine. |
| iv. General & Transferable Skills: | By the end of the course the students will be able to<br>- work effectively in a group in lab<br>- Use the sources of biomedical information to remain oriented with advances in knowledge and practice.<br>- Be motivated for self-learning. |
| 4- Course Content | - Bioenergetics<br>- Carbohydrate metabolism<br>o Glycolysis<br>o Krebs' cycle<br>- Carbohydrate metabolism:<br>o HMP shunt<br>o Gluccuronic acid pathway<br><br>- Glycogen metabolism:<br>- Glycogenesis<br>- Glycogenolysis<br>- Gluconeogenesis<br>- Regulation of blood glucose Hyperglycemia<br>- Hypoglycemia<br>- Glucosuria<br>- Insulin and Diabetes Mellitus<br>- Lipid metabolism<br>- Protein metabolism<br>- Nucleoprotein metab<br>- Hemoprotein metab<br>- Vitamins<br>- Minerals<br>- Saliva<br>- Plasma enzymes<br>- Urine report |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Lab to apply those principles practically. |
| 6- Learning & Teaching Strategies for Students under Probation: | Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment : | |
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their practical skills and manual dexterity. |

| | |
|---|---|
| | - Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Quizzes: 3 throughout the semester.<br>- Midterm exam:<br>- Practical exam: the week before final written exam<br>- Final written exam: end of term<br>- Oral exam: end of term |
| iii. Assessment Schedule | **Assessment Pattern:**<br>In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50%<br>**Total 100%** |
| 8- List of References: | |
| i. Handouts & Lecture Notes | Bioenergetics and Metabolism |
| ii. Reference Textbooks | Reference Text:<br>- Pamela C Champe, Richard A Harvey, Denise R Ferrier 2013 Lippincott`s Illustrated Reviews: Biochemistry 6th ed. Lippincott Williams & Wilkins ( LWW; Sixth, North American Ed., May 24, 2013)<br>- Robert Murray, David Bender, Kathleen M. Botham, Peter J. Kennelly, Victor Rodwell, P. Anthony Weil 2012 Harper's Illustrated Biochemistry 29th ed McGraw-Hill Medical |
| iii. Suggested Reading Reference | Supplementary Readings:<br>- David L.Nelson, Michael M. Cox 2012 Lehninger Principles of Biochemistry 6th ed. W.H. Freeman & |
| iv. Useful websites,…..etc. | http://e-learning.msa.edu.eg |

Preclinical Stage; Fifth Semester

Course Outline

**Course Code** : RES 351n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Preclinical Conservative and Esthetic dentistry

**Department:** Clinical Conservative and Esthetic dentistry

**Course Coordinator**: Professor Faten Kamel

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: RES 241n, PRS 241n

| 2- Objective of Course |
|---|
| Upon completing this course, students will be able to:<br>- Define the carious lesion, apply the mechanical and biological principles of cavity preparation for amalgam, and resin composite and cast gold.<br>- Understand tooth form and occlusion in relation to operative dentistry. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Define dental caries and describe the difference between acute and chronic decay<br>- Identify the cavity preparation for amalgam.<br>- Identify the cavity preparation for resin composite.<br>- Identify the cavity preparation for cast gold.<br>- State the tooth form and occlusion in relation to operative dentistry. |
| ii. Intellectual Skills | - Distinguish dental caries and compare between acute and chronic decay.<br>- Illustrate and compare the cavity preparation for amalgam, resin composite, cast gold.<br>- Distinguish the tooth form and occlusion in relation to operative dentistry. |
| iii. Practical & Professional Skills | - Prepare simple and compound class I on plastic teeth using rotary cutting instruments.<br>- Prepare simple and compound class II on plastic teeth using rotary cutting instruments.<br>- Prepare simple and compound class III on plastic teeth using rotary cutting instruments.<br>- Prepare simple and compound class V on plastic teeth using rotary cutting instruments. |

| | | |
|---|---|---|
| iv. | General & Transferable Skills | - Operate in dummy head to simulate the oral cavity under the supervision and evaluation of the department lecturer and teaching assistant |

| 4- Course Content |
|---|
| - Understand the dental cariology<br>- Apply the mechanical and biological principles of cavity preparation for amalgam, resin composite and cast gold.<br>- Understand tooth form and occlusion in relation to operative dentistry. |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures and tutorials<br>- Lab sessions with life demonstration and videos of all the practical steps.<br>- Brain storming, methods, group discussion, photographs, readings, role play, student lead seminars, case discussion, problem solving. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Knowing their deficiencies and working on it by communicating with their families, giving them extra hours and quizzes, putting them under supervision and monitoring his/ her advance. |

| 7- Student Assessment | | |
|---|---|---|
| i. | Assessment Schemes | - Written quizzes and exams.<br>- Practical Lab exam to test their manual dexterity and skills in cavity preparation and filling.<br>- Oral discussion and exams to assess their communication skills and problem-solving abilities. |
| ii. | Assessment Schedule | - Quizzes and oral discussion are held in the lab and lecture<br>- 1 hour Midterm and 3 hours final written exam, oral and practical exams |

| | | | |
|---|---|---|---|
| iii. | Assessment Pattern | In Course Tests and Quizzes | 10% |
| | | Midterm Exam | 20% |
| | | Practical Exam | 30% |
| | | End of Semester Written Exam | 40% |
| | | **Total** | **100%** |

| 8- List of References: | | |
|---|---|---|
| i. | Handouts & Lecture Notes | MSA University book and lecture power point presentation |
| ii. | Reference Textbooks | - Fundamentals of Operative Dentistry, A Contemporary Approach, 4TH edition.<br>- Sturdevant's Art & Science of Operative Dentistry, 6th edition<br>- Dental Caries: The Disease and its Clinical Management 3rd Edition |
| iii. | Suggested Reading Reference | - Essentials of operative dentistry, latest edition<br>- Textbook of operative dentistry, latest edition |
| iv. | Useful websites,…..etc. | Ebscohost, journal of operative dentistry |

Preclinical Stage; Fifth Semester

Course Outline

**Course Code**: PRS 351n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Fixed Prosthodontics Technology

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Nadia Fahmy

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: RES241n,PRS 241n

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| | |
|---|---|
| 2- Aims: | The preclinical lecture and laboratory course is concerned with beginning to appreciate and recognize the principles and techniques of tooth preparation for Fixed Prosthodontics. It also acquaints and trains the student in the laboratory work and techniques required in the field of Fixed Prosthodontics. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge and Understanding: | - Upon completing this course, students will be able to:<br>- Develop an understanding of the basic principles of fixed prosthodontics.<br>- Recognize and understand the basic principles of preparation and laboratory techniques of cast metal fixed Prosthodontics |
| ii. Intellectual Skills: | - Ability to prepare teeth for crown and bridge work.<br>- Ability to prepare different finish lines of crown preparations.<br>- Enhanced manual dexterity and carving ability |
| iii. Practical and Professional Skills: | - Reflection upon the laboratory steps of preparation and fabrication of metal crown. |
| iv. General and Transferable Skills: | - Use information technologies to enrich his practical experience.<br>- Recognize the basic concepts of practice management. |
| 4- Content | Syllabus:<br>- Terminology and classification.<br>- Instruments and sterilization.<br>- Principles of tooth reduction.<br>- Finish lines.<br>- Full metal crown preparation.<br>- Alloys.<br>- Casting. |

| | |
|---|---|
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Pre-clinical Lab sessions. |
| 6- Learning & Teaching Strategies for Students under Probation | Provide extra classes, more revision and personal assistance. |
| 7- Student Assessment: | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Practical Lab exam to test their manual dexterity and skills in tooth preparation for crowns and in different crown and bridge laboratory procedures.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | |
| iii. Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 30%<br>End of Semester Written Exam 40%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | Lecture notes prepared by staff members. |
| ii. Reference Textbooks | Reference Text:<br>- Fundamentals of fixed prosthodontics, 3rd ed. Sumiya Hobo, Lowell D. Whitsett, Richard Jacobi, Susan E. Brackett, Herbert T. Shillingburg Jr<br>- Fundamentals of Fixed Prosthodontics Herbert T. Shillingburg |
| iii. Suggested Reading Reference | - Fixed Prosthodontics –Principles and Clinics.H.W.Anselm Wiskott.Quintessence Publishing 2011.<br>- The Science and Art of Porcelain Laminate Veneer.Galip Gurel.Quintessence Publishing 2003. |
| iv. Useful websites,…..etc. | Software Requirements<br>- .<br><br>Useful Websites<br>- Ebscohost |

Preclinical Stage; Fifth Semester

Course Outline

**Course Code**: PRS 352n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Removable Prosthodontics Technology

**Department:** Prosthodontics Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Essam Adel Aziz

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: PRS 242

| 2- Objective of course |
|---|
| Apply all the laboratory procedures related to the construction of complete dentures.<br>Identify the different materials, instruments and devices involved in the construction of complete dentures as well as their uses. |

| 3- Intended Learning Outcomes | | |
|---|---|---|
| i. | Knowledge and understanding | - Define impression, post dam, relief, occlusion, jaw relation of complete denture.<br>- Identify Position of teeth (setting) in complete denture. |
| ii. | Intellectual skills | - Recognize differences between natural and artificial teeth.<br>- List different jaw relation techniques. |
| iii. | Practical and professional skills | - Construction of occlusion block.<br>- Mounting on articulators.<br>- Arrange teeth in proper position. |
| iv. | General and transferable skills | - Name the steps of complete denture construction |

| 4- Course Content |
|---|
| - Impression of complete denture, post dam, jaw relation, occlusion.<br>- Retention and stability.<br>- Reline rebasing and Repair |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures<br>- Presentations<br>- Case discussions |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Extra lecture and sessions. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Quizzes<br>- Written exam<br>- Oral exam<br>- Practical exam |
| ii. Assessment Schedule | - Mid-term exam : mid-year<br>- Final exam : at the end of the semester<br>- Oral exam : around the final exam<br>- Quizzes: 4th and 8th week. |
| iii. Assessment Pattern | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 30%<br>End of Semester Written Exam 40%<br>**Total** **100%** |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | |
| ii. Reference Textbooks | - Department's Book |
| iii. Suggested Reading Reference | - Winkler, S.: Essentials of Complete Denture Prosthodontics 2008 |
| iv. Useful websites,…..etc. | |

Preclinical Stage; Fifth Semester

Course Outline

**Course Code**: SGS 352n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Pharmacology

**Department:** Pharmacology Department, Faculty of Pharmacy, MSA

**Course Coordinator**: Professor Amani El Brairy

**Level**: 3 **Credit Hours**: 2

**Prerequisites**: SGS 242n

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| 2- Objectives: | - To provide the basic knowledge about commonly used groups of drugs affecting different body systems and their implications in therapy of disease and health promotion with special interest of the antimicrobial and locally acting drugs used in dental practice.<br>- To enable students to understand the safe use of drugs as regards adverse effects, contraindications and drug interactions.<br>- To help students to choose the drugs appropriately and write prescriptions correctly. |
| 3- Intended Learning Outcomes | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Discuss the pharmacokinetic, dynamic and therapeutic action of different groups of drugs affecting body systems.<br>- Recognize the rational and general guidelines of the 3-use of drugs in special population such as pediatrics, pregnancy and lactation and in case of liver and kidney impairment.<br>- Describe the effect of some Diseases and the drugs used for their treatment on dental practice.<br>- Discuss the use of life saving drugs. |
| ii. Intellectual Skills: | - Observe record and analyze the effect of drugs on biological tissues.<br>- Write prescriptions for some dental problems. |
| iii. Practical and Professional Skills: | - Identify the mechanism of drug action on scientific bases.<br>- Predict drug responses at all levels of biological organization.<br>- Choose the proper drug/s for the proper clinical situation. |
| iv. General and Transferable Skills: | - Use current I.T. for appropriate drug database to reach information about a specific medication.<br>- Appreciate the importance of life-long self-learning and show a strong commitment to it.<br>- Respect ethics related to laboratory work.<br>- Communicate properly with his/her teachers, colleagues and laboratory workers. |

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| 4- Syllabus: | - Cardio-Vascular System (Angina, Hypertension & heart failure)<br>- Calcium Metabolism<br>- Hormones ( Anti-diabetics & Corticosteroids)<br>- Chemotherapy<br>- Penicillins, Cephalosporins, Betalactams<br>- Macrolides (Erythromycin, Clarithromycin & Azithromycin)<br>- Lincosamines: (Lincomycin & Clindamycin)<br>- Aminoglycosides<br>- Amphenicols (Chloramphenicol &Thiamphenicol)<br>- Tetracyclines<br>- Co-Trimoxazole<br>- Fluoroquinolones<br>- Rifampicin<br>- Metronidazole<br>- Antifungal Agents<br>- Antiviral Agents<br>- Antimicrobial Combinations<br>- Resistance to Anti-Microbial Drugs<br>- Adverse Reactions To Anti-Microbials<br>- Allergy<br>- Locally Acting Drugs<br>- Obtundants , Mummifying agents, Antiseptics & Disinfectants, Local Antifungal Agents, Demulcents & Astringents.<br>- Ant-Caries<br>- Adverse Effects of Drugs<br>- Drug Abuse<br>- Drug Interactions<br>- Prescription writing |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Lab to apply those principles practically.<br>- Ability to write a prescription. |
| 6- Learning & Teaching Strategies for Students under Probation | |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their ability to perform simple pharmacological tests and experiments.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | |

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| iii. | Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50%<br>Total 100% |
| 8- List of Reference | | |
| i. | Handouts & Lecture Notes | - None |
| ii. | Reference Text: | - The Pharmacological Basis of Therapeutics ,Goodman, Louis<br>- Basic and Clinical Pharmacology ,G. Katzun |
| iii. | Supplementary Readings: | |
| iv. | Software Requirement and Useful Websites | www.medbioworld.com.cgi |

Preclinical Stage; Fifth Semester

Course Outline

**Course Code**: SGS 351n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Pathology

**Department:** Pathology Department, MSA University

**Course Coordinator**: Professor Bahaa Ehab

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: SGS 232n, SGS 244n, SGS 245n

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| 2- Objectives: | - The course introduces students to the concepts of cell injury, the principles of inflammation and repair, fluid derangements, developmental disorders, genetic, environmental and nutritional diseases and common infectious diseases. Emphasis is placed on understanding how changes in the general health of patients may affect the oral and head and neck regions, and how this may relate to the clinical practice of dentistry. |
| 3- Intended Learning Outcomes | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Understand the basic pathogenesis of disease and the mechanisms of inflammation and repair.<br>- Understand the mechanism and pathogenesis of neoplasia.<br>- Understand the basis of genetic and developmental disorders.<br>- Be familiar with the pathological features and dental relevance of common disorders of the major organ systems. |
| ii. Intellectual Skills: | - Ability to identify diseased human tissues.<br>- Ability to use the light microscope to differentiate diseased human tissues. |
| iii. Practical and Professional Skills | |
| iv. General and Transferable Skills: | |

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| 4- Syllabus: | - Concepts of cellular injury.<br>- Inflammation and repair<br>- Circulatory disturbances<br>- Immunity and hypersensitivity<br>- Pulmonary disturbances |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Lab to apply those principles practically. |
| 6- Learning & Teaching Strategies for Students under Probation | |
| 7- Student Assessment | |
| i. Assessment Schemes : | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Lab exam to test their ability to morphologically and histologically identify various diseased organs and tissues.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 50%<br>Total 100% |
| 8- List of Reference | |
| i. Handouts & Lecture Notes | |
| ii. Reference Text: | - Robbins' Basic Pathology, 7th ed.Ramzi S. Cotran, Stanley L. Robbins, Vinay Kumar 2002 |
| iii. Supplementary Readings: | |
| iv. Software Requirement and Useful Websites | |

Preclinical Stage; Fifth Semester

Course Outline

**Course Code**: OMD 351n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Radiology (Fundamentals)

**Department:** Department of Oral Medicine and Periodontology, Oral Radiology and Oral Diagnosis, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Soad Mansour

**Level**: 3 **Credit Hours**: 2

**Prerequisites**: SGS 113

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| 2- Aims: | The course offers the third year dental student (5th Term) lectures & laboratory sessions on the preclinical theoretical & practical radiologic sciences applicable to general dentistry. It will provide students with the basic knowledge of radiation physics, x-ray machine and image production . It will assist the students in mastering intra-oral dental radiography including the techniques, selecting the receptor, processing, mounting, viewing & trouble-shooting common errors. The course will also introduce some clinical aspects of dental radiography as the application of radiation protection protocols & localization techniques. Also, recognition & interpretation of basic radiographic anatomical landmarks in intraoral & panoramic radiographs. Understanding principles of panoramic radiography and it errors. |
| 3- Intended learning Outcomes | |
| i. Knowledge and Understanding : | Upon completing this course, students will be able to:<br>- Describe nature and characteristics of radiation, the physics and electronics of x-ray production, and the interaction of ionizing radiation with matter.<br>- Recognize general function and operation of dental x-ray machines, digital and film image receptors, darkroom procedures and image acquisition and display.<br>- Distinguish factors involved with image formation.<br>- Identify deficiencies in poor quality radiographs and modifications that will result in improved quality.<br>- Choose the appropriate intraoral or panoramic radiographic techniques .<br>- Illustrate basic principles of radiation biology, radiation safety, protection and risk/benefit consideration in dental radiography.<br>- Identify dose reduction strategies, and high yield selection criteria. |
| ii. Intellectual Skills: | - Select the necessary modifications to produce diagnostically acceptable intra-oral radiographic images.<br>- Distinguish different intra-oral techniques and receptor types to |

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| | produced a diagnostically acceptable image.<br>- Applying the aforementioned body of knowledge by critiquing laboratory exercises.<br>- Select corrective measures to improve any deficiency in laboratory exercises |
| iii. Practical and Professional Skills: | - Produce a diagnostically acceptable intraoral radiographic examinations.<br>- Demonstrate application of radiation protection procedures in all laboratory activity steps.<br>- Demonstrate accurate processing of the exposed films.<br>- Practice correct mounting of the resultant images. |
| iv. General and Transferable Skills: | - Explain “Effectively communicating” the examination instructions to patients (colleagues) for training purposes.<br>- Appraise “observing” the patient and assuring him/her while making exposure.<br>- justify appropriate terms for critiquing images and requesting corrective measures.<br>- Compare different radiation dose units and radiation exposure for different imaging modality.<br>- Revise the students' awareness of the dentist's responsibility to minimize the radiation dose to the patient and environment.<br>- Demonstrate good representation and self-determination. |
| 4- Syllabus: | Topics<br>4.1)Radiation Physics & X-ray machine :<br>- Fundamental properties of matter and types of radiation<br>- Basic x-ray machine components, physics of x-ray production and X-ray characteristics<br>4.2)Image characteristics :<br>- Radiographic image characteristics<br>- Factors affecting them<br>4.3)Image receptors :<br>- Dental x-ray film (intra-oral & extra-oral); classification and composition.<br>- Intensifying screen (principle, types and composition)<br>- Cassettes (types and composition)<br>- Digital receptors<br>4.4)Intra-oral radiographic techniques :<br>- Periapical (paralleling & Bisecting)<br>- Bitewing<br>- Occlusal<br>4.5)Processing :<br>- Latent image formation<br>- Methods of processing (manual & automatic)<br>- Basic requirements and equipments of the dark room.<br>4.6)Radiographic I.O. Anatomical landmarks :<br>- Teeth (radiographic anatomy)<br>- Maxillary radiolucent and radiopaque landmarks<br>- Mandibular radiolucent and radiopaque landmarks<br>4.7)Radiographic Pitfalls :<br>- Technical errors<br>- Processing errors<br>- Trouble shooting |

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| | 4.8)Panoramic radiography :<br>- Principle of tomography<br>- Anatomical landmarks<br>- Positional errors during radiography<br>4.9)Radiation hazards and protection :<br>- Biological effects of radiation<br>- Different radiation dose units<br>- Radiation safety and protection<br>4.10)Object localization Techniques :<br>- Principles<br>- Techniques<br>- Clinical implications |
| 5- Teaching / Learning Strategies: | - Interactive Lectures.<br>- Laboratory demonstration and hands-on practice in small groups.<br>- Small group discussion during critiquing of students' requirements.<br>- Instructor verbal feedback during practical work.<br>- Discussion of quizzes, midterm questions and HW. |
| 6- Learning & Teaching Strategies for Students under Probation | - Implement the principle of academic advising protocol.<br>- Personal assistance and feed-back evaluation<br>- Remediation by distributing extra-home works or assignments.<br>- Taking average of best results.<br>- Mock Practical Exam (For All Students) before the final practical exam. |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Continuous assessment: Written quizzes throughout the course in the form of definitions, illustrate, fill-in, give reasons and short accounts questions<br>- On-line homework : work-sheets, quizzes<br>- Course requirements: production of selected diagnostic images (2 periapical and 1 BW) processed, mounted and critiqued (self-assessed and feedback delivered)<br>- Practical exam: For assessment of cognitive, psychomotor and communication skills in ways such as: student's ability to interpret the examination request, select proper image receptor and perform intra-oral radiographs following standardized guidelines.<br>- Oral exam: Assessment of students understanding, communication skills and problem-solving abilities.<br>- One hour midterm written exam and Three hours final written exam to assess students' core theoretical knowledge. |
| ii. Assessment Schedule: | - Contact hours : weekly (1hr-lecture) and (2hrs-lab)<br>Total of 12 weeks (12hrs-lec.) and (24hrs-lab) |
| iii. Assessment Pattern | In course tests & quizzes 10%<br>Midterm exam 10%<br>Clinical exam 20%<br>Oral exam 10%<br>End of semester written exam 50% |

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| | *Total* *100%* |
| 8- List of References | |
| i. Handouts & Lecture Notes | - Hand-outs<br>- PPT for practical exercises in the following topics are available to assist students' learning<br>o Intra-oral radiographic landmarks<br>o radiographic pitfalls<br>o localization sheets.<br>- Work sheets. |
| ii. Reference Text: | - White, S.C. and Pharoah, M.J., Oral Radiology, Principles and interpretation, 6th ed. 2009. |
| iii. Supplementary Readings: | - Eric Whaites. Essentials of dental radiography and radiology, 4th edition. Churchill Livingstone, 2007.<br>- RINN manual (intraoral radiography with Rinn XCP/BAI instruments). |
| iv. Useful links: | - Anatomical Landmarks in Dental Radiology (ACTA) http://www.iadmfr.org/officers/downloads/ALDR%20English.zip<br>- Normal Anatomy of Intraoral Projections (UNC) http://www.dentistry.unc.edu/NRA/PA_anat/Normal_PA_Anatomy.html<br>- The Buccal Object Rule: http://www.unc.edu/~jbl/BuccalObjectRule.html<br>- Panoramic Radiographic Anatomy (UNC): http://www.dentistry.unc.edu/NRA/PanAnatomy/PanAnat.html<br>- Anatomical Landmarks in Panoramic Radiography (ACTA): http://145.18.252.186/studieweb/cooshockwave/pan3/pano3.html http://iadmfr.org/officers/downloads/Panorama%20Landmarks.zip<br>- Radiographic differential diagnosis of bony lesions: (UCLA) http://www.orad.org<br>- Guidelines on Radiology Standards for Primary Dental Care: Report by the Royal College of Radiologists and the National Radiological Protection Board, NRPB (http://www.hpa.org.uk/radiation/publications/documents_of_nrpb/abstracts/absd5-3.htm) : Volume 5, No. 3 (synopsis)<br>- Guidance notes for dental practitioners on the safe use of x-ray equipment. HSE (http://www.hse.gov.uk/radiation/ionising/rpa/rpa21.htm), 2002. |

Preclinical Stage; Sixth Semester

Course Outline

**Course Code**:RES 361n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Preclinical Conservative and Esthetic dentistry

**Department:** Conservative and Esthetic dentistry

**Course Coordinator**: Professor Faten Kamel

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: RES 351n

| 2- Objective of Course |
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| Upon completing this course, students will be able to:<br>- Know the different chair positions for operation.<br>- Understand the indication, contraindication and clinical application of amalgam, resin composite, glass ionomer and indirect ceramic restorations.<br>- Identify different types of dental matrices.<br>- They should work in a simulator and operate all teeth inside the dummy head with the suitable chair position. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Memorize the different chair position rules.<br>- Describe and identify the different types of matrices.<br>- Memorize the indications, contraindications and application of amalgam restoration.<br>- Memorize the indications, contraindications and application of resin composite restorations.<br>- Memorize the indications, contraindications and application of glass ionomer restorations.<br>- Memorize the indications, contraindications and application of indirect ceramic restorations. |
| ii. Intellectual Skills | - Operate inside the dummy head with the appropriate chair position.<br>- Compare between the different types of matrices.<br>- Differentiate between the properties and uses of the different types of restorations.<br>- Differentiate between the properties and uses of the different types of cavity liner and base. |
| iii. Practical & Professional Skills | - Revise all types of cavity preparations to be done inside the dummy head.<br>- Apply amalgam restorations in these preparations.<br>- Apply resin composite restorations in these preparations. |

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| | - Apply cavity liner and base in deep cavities.<br>- Prepare cavities for indirect ceramic restorations |
| iv. General & Transferable Skills | - Operate in the dummy head to simulate the oral cavity under supervision and evaluation of the department lecturer and teaching assistant |

| 4- Course Content |
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| - Chair position, amalgam, resin composite, glass ionomer and indirect aesthetic restoration, dental matrices. |

| 5- Learning & Teaching Strategies |
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| **Teaching / Learning Strategies:**<br>- Lectures and tutorials<br>- Lab sessions with life demonstration and videos of all the practical steps.<br>- Brain storming, methods, group discussion, photographs, readings, role play, student lead seminars, case discussion, problem solving. |

| 6- Learning & Teaching Strategies for Students under Probation |
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| Knowing their deficiencies and working on it by communicating with their families, giving them extra hours and quizzes, putting them under supervision and monitoring his/ her advance. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes and exams.<br>- Practical Lab exam to test their manual dexterity and skills in cavity preparation and filling.<br>- Oral discussion and exams to assess their communication skills and problem-solving abilities. |
| ii. Assessment Schedule | - Quizzes and oral discussion are held in the lab and lecture<br>- 1 hour Miderm and 3 hours final written exam, oral and practical exams |

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| iii. | Assessment Pattern | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 30%<br>End of Semester Written Exam 40%<br>Total 100% |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | MSA University book and lecture power point presentation |
| ii. | Reference Textbooks | - Fundamentals of Operative Dentistry, A Contemporary Approach, 4TH edition.<br>- Sturdevant's Art & Science of Operative Dentistry, 6th edition |
| iii. | Suggested Reading Reference | - Essentials of operative dentistry, latest edition<br>- Textbook of operative dentistry, latest edition |
| iv. | Useful websites,…..etc. | Ebscohost, journal of operative dentistry |

Preclinical Stage; Sixth Semester

Course Outline

**Course Code**: PRS 361n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Fixed Prosthodontics Technology

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Nadia Fahmy

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: PRS 351n

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| 2- Aims: | The preclinical lecture and laboratory course is concerned with beginning to appreciate and recognize the principles and techniques of tooth preparation for Fixed Prosthodontics. It also acquaints and trains the student in the laboratory work and techniques required in the field of Fixed Prosthodontics. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Develop an understanding of the basic principles of ceramic and veneered crown preparation and construction.<br>- Recognize and understand the basic principles of impression materials and techniques |
| ii. Intellectual Skills: | - Reflection upon the principles of ceramic crown preparation<br>- Techniques of ceramic crown fabrication. |
| iii. Practical and Professional Skills: | - Ability to prepare teeth for ceramic and veneered crown and bridge work.<br>- Ability to manipulate different impression materials.<br>- Enhanced manual dexterity and carving ability.<br>- |
| iv. General and Transferable Skills: | - Use information technologies to enrich his practical experience.<br>- Recognize the basic concepts of practice management. |
| 4- Content | Syllabus:<br>- All Ceramic Crown, Preparation.<br>- All Ceramic Crown, Construction<br>- Veneered Metal Crown, Preparation.<br>- Impression Materials and Techniques.<br>- Working Cast and Dies.<br>- Occlusion and Bite Registration |

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| 5- | Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Pre-clinical Lab sessions. |
| 6- | Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and Personal Assistance |
| 7- | Student Assessment | |
| i. | Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Practical Lab exam to test their manual dexterity and skills in tooth preparation for crowns and in different crown and bridge laboratory procedures.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. | Assessment Schedule | - 12 home assignments.<br>- six 10-min. quizzes.<br>- two 1.5-hr. tests.<br>- 1-hr. Mid term exam.<br>- 3-hr. Final exam. |
| iii. | Assessment Pattern: | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 20%<br>Clinical Exam 30%<br>End of Semester Written Exam 40%<br>Total 100% |
| 8- | List of References: | |
| i. | Handouts & Lecture Notes | Lecture notes prepared by staff member. |
| ii. | Reference Text: | - Sumiya Hobo, Lowell D. Whitsett, Richard Jacobi, Susan E. Brackett, Herbert T. Shillingburg Jr, Fundamentals of fixed prosthodontics, 3rd ed.. 1997 Quintessence Publishing<br>- Herbert T. Shillingburg, Fundamentals of Fixed Prosthodontics1971, Quintessence Pub Co |
| iii. | Supplementary Readings: | - Fixed Prosthodontics –Principles and Clinics.H.W.Anselm Wiskott.<br>- Quintessence Publishing 2011.<br>- The Science and Art of Porcelain Laminate Veneer.Galip Gurel.Quintessence Publishing 2003 |

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| iv. Useful Websites | Software Requirements<br><br>Useful Websites<br>- Ebscohost |

Preclinical Stage; Sixth Semester

Course Outline

**Course Code**: PRS 362n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Removable Prosthodontics Technology

**Department:** Prosthodontics Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Essam Adel Aziz

**Level**: 3 **Credit Hours:** 3

**Prerequisites**: PRS 352n

2- Objective of course

Describe and justify the principles of removable partial prosthodontics.
Apply the basic laboratory procedures related to the construction of the removable partial denture.
Understand the mechanical and biological principles of the components used for removable partial dentures and the laboratory techniques involved in their construction.
Identify the different materials, instruments and devices involved in the construction of removable partial dentures as well as their uses.

3- Intended Learning Outcomes

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| i. | Knowledge & Understanding | - Identify classification of partial edentulous cases.<br>- Recognize different surveying tools.<br>- State different clinical and laboratory steps of RPD construction. |
| ii. | Intellectual Skills | - Schematize different cases according to Kennedy's classification.<br>- Compare different direct retainers.<br>- Compare different types of major connectors. |
| iii. | Practical & Professional Skills | - Apply different types of designs.<br>- Put into practice different rest seats and guiding planes.<br>- Calculate most suitable clasp type. |
| iv. | General & Transferable Skills | |

4- Course Content

- Classification, indications and contraindications of RPD.
- Surveying.
- RPD clinical and laboratory steps.
- RPD components.

| 5- Learning & Teaching Strategies |
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| - Lectures<br>- Presentations<br>- Case discussions |

| 6- Learning & Teaching Strategies for Students under Probation |
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| - Extra lecture and sessions. |

| 7- Student Assessment | | |
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| i. | Assessment Schemes | - Quizzes<br>- Written exam<br>- Oral exam<br>- Practical exam |
| ii. | Assessment Schedule | - Mid-term exam : mid-year<br>- Final exam : at the end of the semester<br>- Oral exam : around the final exam<br>- Quizzes: 4th and 8th week. |
| iii. | Assessment Pattern | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 20%<br>Clinical Exam 30%<br>End of Semester Written Exam 40%<br>Total 100% |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | |
| ii. | Reference Textbooks | Department's Book |
| iii. | Suggested Reading Reference | Rodney, Stewart's Clinical Removable Partial Prosthodontics, Fourth Edition, 2008 |

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| iv. Useful websites,…..etc. | |

Preclinical Stage; Sixth Semester

Course Outline

**Course Code**: HPT 361n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Pathology

**Department:** Department of Histopathology, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Heba Farag

**Level**: 3 **Credit Hours**: 5

**Prerequisites:** HPT 241n, SGS 351n

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| 2- Objective of Course: | This is a course dealing with dental, para-dental lesions and diseases. It deals with the aetiology, incidence, clinical, radiographic and histopathological aspects and prognosis of such lesions. Management of such lesions where relevant will be dealt with also. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Understand the basics of dental and para-dental abnormalities.<br>- Know the classification of dental diseases.<br>- Know the aetiology and pathogenesis of dental diseases.<br>- Know the fate of dental diseases for their prevention and management.<br>- Recognize odontogenic cysts of oral cavity. |
| ii. Intellectual Skills: | Upon completing this course, students will be able to:<br>- Utilize evidence-based pathologic information in solving problems concerned with differential diagnosis of oral and para-oral lesions.<br>- Apply rules for differential diagnosis to reach final diagnosis<br>- Elaborate proper problem solving list according to patient's clinical and radiological findings |
| iii. Practical & Professional Skills: | Upon completing this course, students will be able to:<br>- Use the microscope in identifying dental diseased tissues.<br>- Correlate clinical features and/or radiological appearances with histological findings |
| iv. General & Transferable Skills: | - Plan a differential diagnosis according to the patient's complaints. |

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| 4- Course Content: | - Developmental disturbances of teeth and calcified dental tissues<br>- Regressive changes of the teeth<br>- Developmental disturbances of oral and para-oral tissues<br>- Dental caries<br>- Diseases of the pulp and periapical tissues<br>- Spread of oro-dental infection<br>- Inflammatory bone diseases<br>- Cysts of the jaws, oral and para-oral region. |
| 5- Learning & Teaching Strategies: | - Lectures to establish knowledge and understanding of the proposed curriculum through problem-based learning and student interaction<br>- Laboratory sessions to apply the knowledge gained practically |
| 6- Learning & Teaching Strategies for Students under Probation: | - Provide additional hours, tutorials, more revision, and personal assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Practical exam to assess student's ability to identify and correlate oral and dental abnormalities with their histological appearances when suitable.<br>- Oral exam to assess their communication skills and acquired transferable gained in problem solving.<br>- Three hours final exam to assess their core theoretical knowledge and intellectual skills in problem solving. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 20%<br>Oral Exam 10 %<br>End of Semester Written Exam 40%<br>**Total 100%** |
| 8- List of References: | |
| i. Handouts & Lecture Notes | Lecture hand-outs prepared by staff members. |
| ii. Reference Textbooks | - Robert P. Langlais, Craig S. Miller: Colour Atlas of Common Oral Diseases,2002, Lippincott Williams & Wilkins |

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| iii. | Suggested Reading Reference | - R. A. Cawson, E. W. Odell, Cawson's Essentials of Oral Pathology and Oral Medicine, 7th ed,2002, Churchill Livingstone<br>- Douglas D. Damm, Carl M. Allen, Jerry E. Bouquot, Brad W. Neville, Brad W. Neville, Oral & Maxillofacial Pathology,2001, W. B. Saunders<br>- Joseph A. Regezi, James J. Sciubba, Richard C. K. Jordan, Oral Pathology: Clinical Pathologic Correlations,2002, W. B. Saunders |
| iv. | Useful websites,…..etc. | Useful Websites |

Preclinical Stage; Sixth Semester

Course Outline

**Course Code**: SGS 361n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Pathology

**Department:** Pathology Department, Faculty of Medicine, Cairo University

**Course Coordinator**: Professor Bahaa Ehab

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: SGS 351n

## 2- Objective of Course

The course introduces students to the concepts of growth disorders, neoplasia, and cardiac, pulmonary, and renal disorders. Specific bacterial infections and viral infections are also discussed. Emphasis is placed on understanding how changes in the general health of patients may affect the oral and head and neck regions, and how this may relate to the clinical practice of dentistry.

## 3- Intended Learning Outcomes

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|---|---|
| i. Knowledge & Understanding | - Understand the basic pathogenesis of disease and the mechanisms of inflammation and repair.<br>- Understand the pathogenesis and mechanisms of neoplasia.<br>- Be familiar with the pathological features and dental relevance of common disorders of the major organ systems. |
| ii. Intellectual Skills | - Acquire analytical skills to identify and differentiate gross and microscopic picture of different diseases. |
| iii. Practical & Professional Skills | - Acquire the knowledge and ability to differentiate different pathological lesions. |
| iv. General & Transferable Skills | - Acquire the effect of different pathological diseases of body tissues. |

## 4- Course Content

- Disorders of growth.
- Neoplasia.
- Specific infectious diseases.
- Viral infections.

| 5- Learning & Teaching Strategies |
|---|
| - Lectures to explain underlying principles<br>- Lab to apply those principles practically |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Extra hours<br>- CDs with simple information and images for the curriculum |

| 7- Student Assessment | | |
|---|---|---|
| i. | Assessment Schemes | - Written exams (midterm and final)<br>- Practical exams<br>- assignments |
| ii. | Assessment Schedule | - Quiz every 2 weeks<br>- Midterm Exam<br>- final Exam |
| iii. | Assessment Pattern | In course tests and quizzes 10%<br>Midterm exam 10%<br>Practical exam 20%<br>Oral exam 10%<br>End of semester written exam 50% |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | - Department book |
| ii. | Reference Textbooks | - Rubbins Basic pathology |
| iii. | Suggested Reading Reference | - Rubbins & Cotran pathologic basic of disease<br>- Walter, Hamilton and Israels principles of pathology for dental students |
| iv. | Useful websites,…..etc. | - According to research needs |

Preclinical Stage, Sixth Semester

Course Outline

**Course Code**: POD 361n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Orthodontics-1

**Department:** Department of Paedodontics and Orthodontics

**Course Coordinator**: Professor Wael Attia

**Level**: 3 **Credit Hours**: 2

**Prerequisites**: HPT 241n

| 2- Objective of Course |
|---|
| The course aims to prepare the student to differentiate between the normal occlusion and the malocclusion, link between growth and development study and its clinical applications. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Recognize the growth and development of the face and its effects on orthodontics<br>- Identify the normal occlusion at different age and its deviations lead to malocclusion |
| ii. Intellectual Skills | - Differentiate between the normal occlusion at different ages and the malocclusion<br>- Compare between different types of malocclusion.<br>- Explain various etiological factors of malocclusion |
| iii. Practical & Professional Skills | - Taking an impression for both arches<br>- Pouring 2 sets of casts<br>- trimming the study casts<br>- starting wire exercises<br>- training different types of clasps<br>- Fabricating simple orthodontic appliance(retainer) |
| iv. General & Transferable Skills | - Prepare the student to link between the basic dental science( e.g. oral biology and oral pathology) and<br>- Orthodontic where this is a pre-clinical course |

| 4- Course Content |
|---|

- Growth and development of the face.
- Development of normal occlusion.
- Malocclusion.
- Classifications of malocclusion.
- Etiology of malocclusion.

5- Learning & Teaching Strategies

- Lectures to explain underlying principles.
- Tutorials to help in understanding these principles.
- Lab work to acquire and enhance manual dexterity.
- Clinic to apply the principles related in the theoretical part.

6- Learning & Teaching Strategies for Students under Probation

- Provide extra classes, more revision, and Personal Assistance, guide the student to refer to e-learning where the students will find all lectures and practical training.

7- Student Assessment

| | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Practical exam to test their abilities and dexterity in wire bending and fabricating simple orthodontic appliances.<br>- Oral exam to assess their understanding, communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Written quizzes/tests will be held weekly or twice week in lecture or in practical hours, the students are informed with this system at the start of the course. |
| iii. Assessment Pattern | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 10%<br>Clinical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |

8- List of References

| | |
|---|---|
| i. Handouts & Lecture Notes | - Available as hard copy and soft copy (e-learning) |

| | | |
|---|---|---|
| ii. | Reference Textbooks | - None |
| iii. | Suggested Reading Reference | - Orthodontics<br>Current principles and techniques<br>Graber- Vanarsdall - Vig<br>2012<br>- Contemporary Orthodontics<br>William R. Proffit<br>2007<br>- Handbook of Orthodontics<br>Cabourne - Diabias<br>2010<br>- Current therapy in Orthodontics<br>Nanda – Kapile<br>2010 |
| iv. | Useful websites,…..etc. | |

Preclinical Stage; Sixth Semester

Course Outline

**Course Code**: OMD 361n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Radiology (Techniques)

**Department:** Department of Oral Medicine and Periodontology, Oral Radiology and Oral Diagnosis, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Soad Mansour

**Level**: 3 **Credit Hours**: 3

**Prerequisites**: OMD 351n

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| | |
|---|---|
| 2- Aims: | This course aims at providing junior dental students with the learning opportunities needed to acquire the knowledge, skills, professional behaviors, and attitudes, required to become competent at : generating an appropriate radiographic examination request based on patient's history and clinical presentation, using proper radiographic selection criteria, executing successfully and efficiently<br>the radiographic examination on a patient and formulating a complete radiographic report. Also identifying radiographically different diseases that involve teeth and their supporting structures and applying the fundamental principles of radiographic description of lesions, interpretation and differential diagnosis in writing. This aim is primarily achieved by employing a self-directed problem solving approach, designed to enhance students' critical thinking and decision making abilities when faced with radiographic lesions commonly encountered in general dental practice. |
| 3- Intended Learning Outcomes | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Categorize extra-oral radiographic techniques ; their principles and clinical indications.<br>- Identify appearances of radiographic anatomical landmarks on extra-oral radiographs and alternative modalities based on their radiographic pattern and anatomical locations.<br>- Illustrate the relevant principles of advanced imaging modalities e.g. tomography, CT, CBCT and MRI and their application in radiology of the maxillofacial region.<br>- Interpret radiographic appearances of diseases affecting teeth and their supporting structures (caries & periapical and periodontal diseases)<br>- Explain different jaw bone diseases based on their radiographic pattern and anatomical locations e.g. unilocular multilocular radiolucencies, mixed radiolucent /radio-opaque lesions, radio-opacities, periapical, pericoronal, ground glass, cotton wool, etc…. |

| | |
|---|---|
| | - Recognize different lesions' behavior on radiographs. |
| ii. Intellectual Skills: | - Propose an appropriate radiographic examination request for intraoral structures based on patients history and clinical presentation (symptoms ) using guidelines and radiographic selection criteria and for extra oral and advanced imaging modalities based on techniques` clinical indication<br>- Apply the fundamental principles of radiographic description of lesions affecting teeth and their supporting structures.<br>- Relate the radiographic features to clinical findings and other investigations results.<br>- Interpret images of TMJ, Maxillary sinuses , systemic disorders and teeth and their supporting structures' lesions through radiographic report<br>- Formulate a radiographic report including list of differential diagnosis (not more than 3 lesions).<br>- Distinguish the advanced imaging modalities in terms of physical principles & clinical application in different planes.<br>- Critique the intraoral radiographic images (6 BW, PA). |
| iii. Practical and Professional Skills: | - Executing (perform) successfully and efficiently the oral-intra radiographic examination.<br>- Apply the protection procedures professionally.<br>- Conduct radiographic prescription request including the necessary information<br>- Extend attention to patients during radiographic acquisition procedures.<br>- Formulate radiographic report that includes findings, impression, differential diagnosis and recommendation. |
| iv. General and Transferable Skills: | - Demonstrate ability in gaining access to internet for radiographic interpretation and differential diagnosis. (cases distributed on-line)<br>- Improve the students' awareness of the dentist's responsibility to minimize the radiation dose to the patient and environment.<br>- Encourage good representation and self-determination.<br>- Work in a team. |
| 4- Syllabus: | 4.1) Extra-oral radiography :<br>- Techniques (classification, indications)<br>- Anatomical landmarks<br>4.2) Specialized imaging modalities :<br>- Tomography<br>- CT<br>- CBCT<br>- MRI<br>(basic principles and application in dentistry)<br>4.3) Radiographic prescription guidelines<br>4.4) Radiographic Interpretation :<br>- Principles of radiographic interpretation; describing a lesion<br>- Radiographic interpretation of caries<br>- Radiographic interpretation of periodontal diseases<br>- Radiographic interpretation of periapical diseases<br>- Radiographic interpretation of cystic lesions<br>- Radiographic interpretation of Benign lesions |

| | |
|---|---|
| | - Radiographic interpretation of malignant lesions<br>- Radiographic interpretation of jaw bones infections<br>4.5) Radiographic differential diagnosis :<br>- D Dx of RL lesions<br>- D Dx of Mixed lesion<br>- D Dx of radiopaque lesions |
| 5- Teaching / Learning Strategies: | - Tutorial: Discussion of radiographic samples (small group discussion)<br>- Discussion of Continuous Assessment quizzes & Mid-term exam questions.<br>- Discussion of the HW cases<br>- Practical demonstration.<br>- Feedback evaluation |
| 6- Learning & Teaching Strategies for Students under Probation | - Implement the principle of academic advising protocol.<br>- Personal assistance and feed-back evaluation<br>- Remediation by distributing extra-home works or assignments.<br>- Taking average of best results.<br>- Mock Practical Exam (For All Students) before the final practical exam. |
| 7- Student assessment | |
| i. Assessment Scheme: | - Continuous assessment: Written quizzes throughout the course in the form of definitions, illustrate, fill-in, give reasons and short accounts questions<br>- On-line homework : work-sheets and quizzes<br>- Course requirements: production of selected diagnostic images (4 periapical and 2 BW) processed, mounted and critiqued (self-assessed and feed back delivered)<br>- Practical exam: Assessment of cognitive, psychomotor and communication skills in ways as student's ability to interpret the examination request, select proper image receptor and perform intra-oral radiographs following a standardized guidelines.<br>- Oral exam: Assessment of students' understanding, communication skills and problem-solving abilities.<br>- One hour midterm written exam and Three hours final written exam to assess students' core theoretical knowledge. |
| ii. Assessment Schedule | - Contact hours : weekly (1hr-lecture) and (2hrs-lab)<br>Total of 12 weeks (12hrs-lec.) and (24hrs-lab) |
| iii. Assessment Pattern: | In Course Quizzes and clinical requirements 20%<br>Mid-term Exam 10%<br>Clinical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |
| 8- List of References | |

| | | |
|---|---|---|
| i. | Handouts & Lecture Notes | - Hand-outs for the lectures<br>- PPT for problem-based cases for interpretation |
| ii. | Reference Text: | - Differential Diagnosis of Oral Diseases, Chapter on Bony Lesions by Wood & Goaz. 5th ed. 2006<br>- Oral Radiology: Principle and Interpretation, 6th ed. By White & Pharoah 2009. |
| iii. | Supplementary Readings: | - Langland and Langlais, Principles for dental imaging, 2003. |
| iv. | Useful links: | - Anatomical Landmarks in Dental Radiology (ACTA) http://www.iadmfr.org/officers/downloads/ALDR%20English.zip<br>- Normal Anatomy of Intraoral Projections (UNC) http://www.dentistry.unc.edu/NRA/PA_anat/Normal_PA_Anatomy.html<br>- The Buccal Object Rule: http://www.unc.edu/~jbl/BuccalObjectRule.html<br>- Panoramic Radiographic Anatomy (UNC): http://www.dentistry.unc.edu/NRA/PanAnatomy/PanAnat.html<br>- Anatomical Landmarks in Panoramic Radiography (ACTA): http://145.18.252.186/studieweb/cooshockwave/pan3/pano3.html http://iadmfr.org/officers/downloads/Panorama%20Landmarks.zip<br>- Radiographic differential diagnosis of bony lesions: (UCLA) http://www.orad.org<br>- Guidelines on Radiology Standards for Primary Dental Care: Report by the Royal College of Radiologists and the National Radiological Protection Board, NRPB (http://www.hpa.org.uk/radiation/publications/documents_of_nrpb/abstracts/absd5-3.htm) : Volume 5, No. 3 (synopsis)<br>- Guidance notes for dental practitioners on the safe use of x-ray equipment. HSE (http://www.hse.gov.uk/radiation/ionising/rpa/rpa21.htm), 2002. |

Clinical Stage; First Semester

Course Outline

**Course Code**: RES 411n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Preclinical Conservative and Esthetic dentistry

**Department:** Conservative and Esthetic dentistry

**Course Coordinator**: Professor Dr.Faten Kamel

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: RES361n

| 2- Objective of Course |
|---|
| Upon completing this course, students will be able to:<br>- Study the infection control protocols.<br>- Study and apply the different types of cavity bases and liners.<br>- Study the biological influences of restorative procedures & materials.<br>- Understand the health & occupational hazards of the dental procedures.<br>- Instruction is focused on how to make proper diagnosis and treatment planning, along with the execution of basic restorative dental treatment. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Memorize the infection control protocol.<br>- Identify the different methods of patient examination and diagnosis.<br>- Explain the biological influences of restorative procedures & materials.<br>- List the health & occupational hazards of the dental procedures.<br>- Memorize the different types of cavity liner and base. |
| ii. Intellectual Skills | - Compose a treatment plan suitable for each patient.<br>- Comply the health & occupational hazards of the dental procedures.<br>- Apply the infection control protocols.<br>- Summarize the biological influences of restorative procedures & materials.<br>- Identify the properties and uses of the different types of cavity liner and base. |
| iii. Practical & Professional Skills | - They revise all types of cavity preparations and restorations to be done in extracted teeth inside the dummy head.<br>- Application of the rubber dam on extracted teeth inside the dummy head.<br>- Patient examination, discover the diagnosis and outline the treatment plan.<br>- Apply the infection control protocols.<br>- Apply the different types of cavity liner and base according to their indications. |

| | |
|---|---|
| iv. General & Transferable Skills | - Operate in dummy head to simulate the oral cavity and apply the infection control protocols under the supervision and evaluation of the department lecturer and teaching assistant |

| 4- Course Content |
|---|
| - Patient assessment, diagnosis & treatment planning.<br>- Biological influences of restorative procedures & materials.<br>- Health & occupational hazards of dental procedures.<br>- Infection control<br>- Cavity bases and liners |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures and tutorials<br>- Lab sessions with life demonstration and videos of all the practical steps.<br>- Brain storming, methods, group discussion, photographs, readings, role play, student lead seminars, case discussion, problem solving. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Knowing their deficiencies and working on it by communicating with their families, giving them extra hours and quizzes, putting them under supervision and monitoring his/ her advance. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes and exams.<br>- Practical Lab exam to test their manual dexterity and skills in cavity preparation and filling.<br>- Oral discussion and exams to assess their communication skills and problem-solving abilities. |
| ii. Assessment Schedule | - Quizzes and oral discussion are held in the lab and lecture<br>- 1 hour midterm and 3 hours final written exam, oral and practical exams |

| | | |
|---|---|---|
| iii. | Assessment Pattern | In Course Quizzes and clinical requirements 20%<br>Mid-term Exam 10%<br>Clinical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>Total 100% |

| 8- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | MSA University book and lecture power point presentation |
| ii. | Reference Textbooks | - Fundamentals of Operative Dentistry, A Contemporary Approach, 4TH edition.<br>- Sturdevant's Art & Science of Operative Dentistry, 6th edition |
| iii. | Suggested Reading Reference | - Essentials of operative dentistry, latest edition<br>- Textbook of operative dentistry, latest edition |
| iv. | Useful websites,…..etc. | - Ebscohost, journal of operative dentistry and the Association of Dental Education in Europe (ADEE) |

Clinical Stage; First Semester

Course Outline

**Course Code**: RES 412n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Endodontics Technology

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Dr Elham El Shaboury

**Level**: 4 **Credit Hours**: 2

**Prerequisites**: RES 351n

| 2- Objective of Course |
|---|
| The course is concerned with study and exploration of the different morphology aspects of the human dental pulp. It aims to train the student to perform the technical aspects of root canal treatment based on biological principles. The student should be able at the end of this course to perform access opening of extracted anterior teeth, premolars and molars as well as taking working length, instrumentation and filling of anterior and premolar root canals |

| 3- Intended Learning Outcomes | | |
|---|---|---|
| i. | Knowledge& Understanding | - Describe the internal anatomy of the pulp space for all teeth and its variations.<br>- Recognize and illustrate instruments used in performing root canal treatment<br>- Understand steps of different cleaning and shaping techniques of root canal system and explain how to determine their objectives<br>- Illustrate the mechanical behaviour, manipulation and physical properties of different medicaments and materials used during mechanical preparation of root canal.<br>- Describe different and recent techniques for obturation of root canal system and identify different obturating materials.<br>- Illustrate different errors that may occur during technical steps of root canal treatment and their management |
| ii. | Intellectual Skills | - Correlate the coronal outline form with the knowledge of internal pulpal anatomy<br>- Apply all the principles of proper coronal and radicular cavity preparation<br>- Apply all the principles of proper root canal obturation. |
| iii. | Practical & Professional Skills | - Provide first hand-on endodontic preclinical training and experience utilizing extracted human teeth<br>- Demonstrate on the endodontic components of radiographic interpretation, access preparation, root canal negotiation, tooth length determination, preparation, and obturation of the root canal system |

| | |
|---|---|
| | - Master the technical procedures in root canal therapy on mounted extracted teeth |
| iv. General & Transferable Skills | - Practice the teamwork skill.<br>- Use information technology to improve the education through research work activities |

| 4- Course Content |
|---|
| - Scope of Endodontics<br>- Pulp space morphology and macroscopic anatomy<br>- Access cavity preparation<br>- Basic Instruments and Instrumentation.<br>- Cleaning, shaping and working length determination.<br>- Obturation techniques and materials. |

| 5- Teaching & Learning Strategies for Students under Probation |
|---|
| - Lectures (Teaching aids: Data show, whiteboard, slide projector(<br>- Clinical demonstration |

| 6- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical requirements.<br>- Clinical exam to test their manual dexterity and skills in root canal preparation and filling.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three Hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Weekly quizzes<br>- Mid-term exam<br>- Final written oral and practical exams |

| | | |
|---|---|---|
| iii. Assessment Pattern | In Course Quizzes and clinical requirements | 20% |
| | Mid-term Exam | 20% |
| | Clinical Exam | 30% |
| | End of Semester Written Exam | 30% |
| | Total | 100% |

| 7- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Prof.Dr. / Elham ElShaboury handouts<br>- Book issued by the Department of Endodontics |
| ii. Reference Textbooks | - Pathways of the Pulp, 8th ed.Stephen Cohen; Richard C. Burns 2002<br>- Endodontics: Principles and Practice 6th ed. Mahmoud Torabinejad, Richard E. Walton 2008 |
| iii. Suggested Reading References | - Endodontics, 6th ed.John I. Ingle; Leif K. Backland 2008<br>- Cohen's Pathways of the Pulp Expert Consult, 10th ed. Kenneth M. Hargreaves; Stephen Cohen; Louis H. Berman 2011 |
| iv. Useful websites,…..etc. | - Online Dental Learning onlinedentallearning.com<br>- Journal of Endodontics<br>- International Journal of Endodontics |

Clinical Stage; First Semester

Course Outline

**Course Code**: PRS 411n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Fixed Prosthodontics

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Nadia Fahmy

**Level**: 4 **Credit Hours**: 2

**Prerequisites**: PRS 361n

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|---|---|
| 2- Aims: | The course spans four semesters. The course introduces the student to the clinical application of skills acquired in his previous crown and bridge preclinical training. Instruction is focused on early development of diagnosis and treatment planning skills, along with the execution of basic fixed prosthodontics. The course also allows interaction between the dental student and the professional dental laboratory technician. It also presents more advanced techniques and treatment planning for advanced and complex fixed prosthodontic needs as well as the principles of crown and bridge in implant dentistry. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Review and evaluate the principles necessary to provide patients with fixed prosthodontics.<br>- Critically examine and evaluate the role of abutments, retainers, Pontics and connectors. |
| ii. Intellectual Skills: | - Reflection upon the principles of diagnosing and treatment planning,<br>- Techniques of bridge fabrication. |
| iii. Practical and Professional Skills: | - Ability to fabricate abutments, retainers, Pontics and connectors for fixed partial prosthodontics.<br>- Ability to manipulate different impression materials. |
| iv. General and Transferable Skills: | - Use information technologies to enrich his practical experience.<br>- Recognize the basic concepts of practice management. |

| | |
|---|---|
| 4- Content | - Diagnosis and treatment planning for fixed prosthodontics.<br>- The abutment tooth.<br>- The retainers.<br>- The pontics.<br>- The connectors.<br>- Bridge design. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinic to apply those principles. |
| 6- Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and personal assistance |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to perform various crown and bridge procedures, tooth preparation and impression taking.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - 12 home assignments.<br>- Six 10-min. quizzes.<br>- Two 1.5-hr. tests.<br>- 1-hr. Mid term exam.<br>- 3-hr. Final exam. |
| iii. Assessment Pattern: | In Course Quizzes and clinical requirements 20%<br>Mid-term Exam 10%<br>Clinical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | - Lecture notes prepared by staff members. |

| | |
|---|---|
| ii.Reference Text: | - Edward W. Odell : Clinical Problem Solving in Dentistry, Churchill Livingstone, 2000.<br>- Herbert T. Shillingburg Jr, Sumiya Hobo, Lowell D. Whitsett, Richard Jacobi, Susan E. Brackett: Fundamentals of Fixed Prosthodontics, Quintessence Publishing,1997. |
| iii.Supplementary Readings | - Fixed Prosthodontics –Principles and Clinics .H.W.Anselm Wiskott.<br>- Quintessence Publishing 2011. |
| iv.Useful Websites | Software Requirements<br>- Ebscohost |

Clinical Stage; First Semester

# Course Outline

**Course Code**: PRS 412n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Removable Prosthodontics

**Department:** Prosthodontics Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Essam Adel Aziz

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: PRS 362n

| 2- Objective of course |
|---|
| - The student should be able to implement his knowledge to correlate different diagnostic findings to reach proper diagnose of the patients' problems and suggest the proper treatment plan suitable for each case.<br>- Demonstrate sound knowledge of the biological and technical aspects of complete dentures and their integration with the clinical procedures.<br>- Apply the clinical procedures related to the construction of complete dentures.<br>- To achieve practical goals for treatment of patients on an individual and fundamental basis. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - List steps of diagnosis and treatment planning.<br>- Identify primary impressions and theories and techniques of final impressions.<br>- Recall basic mandibular movements and positions.<br>- Visualize the jaw relationships; significance and techniques of their recording.<br>- State the different types of articulators and their uses.<br>- Recognize the use of face bows for mounting casts. |
| ii. Intellectual Skills | - Describe the try-in and delivery of complete dentures.<br>- Outline the follow-up dentures and treatment of patient's complaints.<br>- Distinguish the factors affecting retention and stability of complete denture.<br>- Analyze factors affecting complete denture esthetics, occlusion and speech. |
| iii. Practical & Professional Skills | - Manipulate the dental materials necessary to fabricate a complete denture<br>- Use various instrument used in fabrication of complete dentures<br>- Making primary and final impressions<br>- Recording vertical, centric, protrusive and lateral jaw relationships. |

| | |
|---|---|
| | - Try-in of complete denture.<br>- Complete denture insertion, follow-up and treatment of patient's complaints.<br>- Intraoral occlusal adjustment to correct occlusal disharmony.<br>- Records for clinical remounting and selective grinding. |
| iv. General & Transferable Skills | |

| 4- Course Content |
|---|
| - Introduction.<br>- Infection control.<br>- Diagnosis and treatment plan.<br>- Impressions.<br>- Anatomy of TMJ & mandibular movements.<br>- Jaw relation record.<br>- Try- in.<br>- Denture insertion.<br>- Patient complains. |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures<br>- Presentations<br>- Case discussions |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Extra lecture and sessions. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Quizzes<br>- Written exam<br>- Oral exam<br>- Practical exam |

| | |
|---|---|
| ii. Assessment Schedule | - Mid-term exam : mid-year<br>- Final exam : at the end of the semester<br>- Oral exam : around the final exam<br>- Quizzes : 4th and 8th week |
| iii. Assessment Pattern | In Course Quizzes and clinical requirements 20%<br>Mid-term Exam 10%<br>Clinical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | |
| ii. Reference Textbooks | Department's Book |
| iii. Suggested Reading Reference | Winkler, S.: Essentials of Complete Denture Prosthodontics 2008 |
| iv. Useful websites,…..etc. | |

Clinical Stage; First Semester

Course Outline

**Course Code**: HPT 411n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Pathology

**Department:** Department of Histopathology, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Heba Farag

**Level**: 4 **Credit Hours**: 4

**Prerequisites:** HPT 361n

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|---|---|
| 2- Objective of Course: | This is a comprehensive course on oral and para-oral lesions. It deals with the aetiology, incidence, clinical, radiographic, histopathological aspects and prognosis of such lesions. It prepares the student for the clinical courses of oral surgery, and oral medicine. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Correlate their basic knowledge of general pathology as regards neoplasia with dental and para-dental abnormalities.<br>- Classify of neoplasia<br>- Know the aetiology and pathogenesis of dental diseases.<br>- Outline the fate of dental diseases for their prevention and management.<br>- Recognize odontogenic neoplasms and differentiate between them. |
| ii. Intellectual Skills: | Upon completing this course, students will be able to:<br>- Utilize evidence-based pathologic information in solving problems concerned with differential diagnosis of oral and para-oral lesions.<br>- Apply rules for differential diagnosis to reach final diagnosis<br>- Elaborate proper problem solving list according to patient's clinical and radiological findings |
| iii. Practical & Professional Skills: | Upon completing this course, students will be able to:<br>- Use the microscope in identifying abnormalities occurring in oral tissues.<br>- Correlate clinical features and/or radiological appearances with histological findings<br>- Build up full documentation necessary for biopsy request<br>- Write a proper biopsy report |

| | |
|---|---|
| iv. General & Transferable Skills: | - Plan a differential diagnosis according to the patient's complaints. |
| 4- Content | - Benign neoplasms of the oral cavity, bone and salivary glands.<br>- Premalignant lesions of the oral cavity.<br>- Malignant neoplasms of the oral cavity, bone and salivary glands.<br>- Odontogenic neoplasms<br>- Bone diseases<br>- Salivary gland diseases<br>- Bacterial, mycotic and viral infections with oral manifestations. |
| 5- Learning & Teaching Strategies: | - Lectures to establish knowledge and understanding of the proposed curriculum through problem-based learning and student interaction<br>- Laboratory sessions to apply the knowledge gained practically |
| 6- Learning & Teaching Strategies for Students under Probation: | - Provide additional hours, tutorials, more revision, and personal assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Practical exam to assess student's ability to identify and correlate oral and dental abnormalities with their histological appearances when suitable.<br>- Oral exam to assess their communication skills and acquired transferable gained in problem solving.<br>- Three hours final exam to assess their core theoretical knowledge and intellectual skills in problem solving. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 20%<br>Clinical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | - Lecture hand-outs prepared by staff members. |

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| ii. Reference Textbooks | - Robert P. Langlais, Craig S. Miller, Craig S. Miller: Color Atlas of Common Oral Diseases, Lippincott Williams & Wilkins, 2002 |
| iii. Suggested Reading Reference | - R. A. Cawson, E. W. Odell: Cawson's Essentials of Oral Pathology and Oral Medicine, Churchill Livingstone,2002.<br>- Douglas D. Damm, Carl M. Allen, Jerry E. Bouquot, Brad W. Neville, Brad W. Neville : Oral & Maxillofacial Pathology, W.B. Saunders,2001.<br>- Joseph A. Regezi, James J. Sciubba, Richard C. K. Jordan :Oral Pathology: Clinical Pathologic Correlations ,W.B. Saunders,2002. |
| iv. Useful websites,…..etc. | Useful Websites |

Clinical Stage; First Semester

Course Outline

**Course Code**: SGS 411n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Medicine

**Department:** General Medicine Department, Faculty of Medicine, Cairo Univ.

**Course Coordinator**: Dr Ahmed Abdel Hakim

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: SGS 352n, SGS 246n, SGS 361n

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| 2- Aims: | The course is aimed at teaching the student the principles of internal medicine as they pertain to provision of dental care. It focuses on the aetiology, clinical manifestations and treatment of diseases including cardiovascular diseases, pulmonary diseases, gastro-intestinal diseases and Blood diseases. |
| 3- Intended Learning Outcomes | |
| i. Knowledge and Understanding | Upon completing this course, students will be able to:<br>- Develop an increasing awareness of the basics of internal medicine.<br>- Develop effective communication skills with patients, their relatives and fellow medical practitioners.<br>- Be familiar with the pathological features and dental relevance of common disorders of the major organ systems. |
| ii. Intellectual Skills: | - Explore and reflect upon the relationship between internal medicine and the practice of dentistry. |
| iii. Practical and Professional Skills: | - Ability to deal with patients suffering from systemic diseases such as cardiac and diabetic patients and communicate with patients affected by general diseases in the dental setting.<br>- Ability to take a proper medical history, especially concerning cardio-respiratory diseases, haemorrhagic disorders, allergy and drug therapy. |
| iv. General and Transferable Skills: | - Have knowledge about diagnosing medical emergencies and delivering suitable emergency drugs using, where appropriate, intravenous techniques. |

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| 4- SYLLABUS | - Diseases of the cardiovascular system.<br>- Diseases of the pulmonary system.<br>- Diseases of the gastro-intestinal system; liver diseases.<br>- Diseases of the blood and blood-forming organs; HIV. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinical rounds. |
| 6- Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and personal assistance |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to physically examine patients and diagnose certain medical conditions of importance to the dentist.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | - Lectures: - 2 hrs<br>- Clinical Round: - 2 hrs |
| iii. Assessment Pattern: | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 10%<br>Clinical Exam 10%<br>Oral Exam 15%<br>End of Semester Written Exam 40+15%<br>Total 100% |
| 8- List of Reference | |
| i. Handouts & Lecture Notes | - Lecture notes prepared by staff members. |
| ii. Reference Text: | - R. W Matthews: Aids to Medicine for Dental Students, Churchill Livingstone, 1973. |

| | |
|---|---|
| iii. Supplementary Readings | - Prasanna Sooriakumaran: Key Topics In Human Diseases for Dental Students, Taylor & Francis Group, 2005.<br>- Crispian Scully, Roderick A. Cawson: Medical Problems in Dentistry, 4th ed,1998. |
| iv. Useful Websites | |

Clinical Stage; First Semester

Course Outline

**Course Code**: SGS 412n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Surgery

**Department:** General Surgery Department, Faculty of Medicine, Cairo Univ.

**Course Coordinator**: Professor Ahmed Farghaly

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: SGS 352n, SGS 246n, SGS 361n

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| 2- Objective of Course: | The course is designed to provide basic understanding of general surgery. It prepares the dental student to know how to deal with general problems such as shock, haemorrhage, infections (specific and non-specific), in order to comprehend the oral surgery course later on in his study. Emphasis is being placed on wound healing, haemostasis, and wound infection. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Have a deep understanding of principles of surgical intervention.<br>- Recognize and evaluate the basis of occurrence of diseases that need to be referred to a specialist.<br>- Ability to observe and interpret physical signs in his clothed patients |
| ii. Intellectual Skills: | - Be competent at carrying out resuscitation techniques and immediate management of cardiac arrest, anaphylactic reaction, upper respiratory obstruction, vasovagal attack, haemorrhage, inhalation or ingestion of foreign bodies, and diabetic coma. |
| iii. Practical & Professional Skills: | - Ability to manage simple wounds.<br>- Ability to manage simple surgical problems in the dental setting.<br>- Ability to administer first aid and cardiopulmonary resuscitation.<br>- Ability to administer intra-muscular, intravenous and subcutaneous injections |
| iv. General & Transferable Skills: | Upon completing this course ,students will be able to :<br>- Be good listeners to the patients' history<br>- Build up a friendly dentist – patient relationship<br>- Manage each patient according to his personality<br>- Outline the treatment plan according to the patient's priorities & to suit his financial capabilities without jeopardizing technical rules. |

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| 4- Course Content: | - Wounds and wound healing.<br>- Haemorrhage, blood transfusion and fluid therapy.<br>- Specific and non-specific infections.<br>- Ulcers, sinuses and fistulae.<br>- Trauma. |
| 5- Learning & Teaching Strategies: | **Teaching / Learning Strategies**<br>- Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinical rounds |
| 6- Learning & Teaching Strategies for Students under Probation: | - Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to physically examine patients and diagnose certain surgical conditions of importance to the dentist.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | - Lectures: - 2 hrs<br>- Clinical Round: - 2 hrs |
| iii. Assessment Pattern: | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 10%<br>Clinical Exam 10%<br>Oral Exam 15%<br>End of Semester Written Exam 40+15%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | - The course leader will distribute handouts at the beginning of the semester that cover the whole curriculum of the course. |

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| ii. Reference Textbooks | - Peter F. Lawrence, Peter F. Lawrence, Richard M. Bell, Merril T. Dayton. Essentials of General Surgery, 3rd ed. Lippincott Williams & Wilkins, 2000.<br>- D. MacLean, P.E. Preece. Lecture Notes on Clinical Medicine and Surgery for Dental Students. Year Book Medical Pub, 1976. |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | |

Clinical Stage; First Semester

Course Outline

**Course Code**: OMD 411n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Medicine, Periodontology, Oral & Radiographic Diagnosis

**Department:** Department of Oral Medicine and Periodontology, Oral Radiology and Oral Diagnosis, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Hakem El Sayed

**Level**: 4 **Credit Hours**: 2

**Prerequisites**: All Preclinical Stage courses

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| 2- Objective of Course: | The course aims at providing students with specific knowledge about :<br>- How to gather information from patients & make deductions<br>- The careful evaluation of patient's chief complaint<br>- Proper understanding of the importance of discovering diagnosed & undiagnosed medical conditions among patients attending the dental clinics<br>- How to perform a physical examination that includes both extra- & intra-oral structures<br>- The ability to recognize disease states & abnormalities in order to reach final diagnosis of oral conditions<br>- How to design a treatment plan based on the obtained diagnosis & patient's needs.<br>- Understanding the value & use of certain lab investigations in dental practice & identifying findings |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course ,students will be able to :<br>- Define different types of oral diagnosis.<br>- Identify different types of questions used during patient interview.<br>- Identify & record patient's complaint<br>- Obtain & record a detailed history of different chief complaints<br>- Recognize different causes of orofacial pain<br>- Obtain & record a detailed dental history<br>- Recognize patients with medical problems<br>- Identify different techniques of clinical examination<br>- Identify normal extraoral features<br>- Recognize abnormal extraoral features<br>- Identify normal intraoral landmarks<br>- Recognize variation from normal<br>- Recognize lymphadenopathy & its causes<br>- Identify findings of lab investigations of importance in dental practice . |

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| ii. Intellectual Skills: | - Use communication skills efficiently to develop a mature, sensitive and caring relationship with their patients.<br>- Identify, prioritize and generate a list of potential patient's clinical problems.<br>- Differentiate between normal and abnormal features that are particularly relevant to dental practice.<br>- Analyze, interpret, and integrate collected diagnostic data to solve clinical problems based on current evidence.<br>- Use intellectual thinking to correlate Laboratory investigations with different systemic diseases<br>- Reason deductively in clinical problem solving. |
| iii. Practical & Professional Skills: | Upon completing this course ,students will be able to :<br>- Extract information out of the patient<br>- Establish a comprehensive patient's history<br>- Extract full information regarding patient's chief complaint<br>- Review the body systems and consult with other health care professionals, when required.<br>- Carry out systematic clinical examination including both extra- & intra-oral structures<br>- Apply the rules of differential diagnosis to reach final diagnosis<br>- Analyze all the available data before running to conclusions<br>- Elaborate a problem list according to the clinical findings<br>- Outline a treatment plan according to the patient's needs<br>- Evaluate the case prognosis ahead of treatment planning<br>- Request and evaluate appropriate investigations.<br>- Functionalize & interpret lab investigation. |
| iv. General & Transferable Skills: | Upon completing this course ,students will be able to :<br>- Be good listeners to the patients' history<br>- Build up a friendly dentist – patient relationship<br>- Manage each patient according to his personality<br>- Outline the treatment plan according to the patient's priorities & to suit his financial capabilities without jeopardizing technical rules. |
| 4- Course Content: | Topics<br>- The diagnostic method<br>- Patient's history<br>- Patient's chief complaint (C/C)<br>- Pain as chief complaint<br>- Dental History- Medical History<br>- Discovering medically complex patients<br>- Methods of clinical examination<br>- Extra-oral examination<br>- Intra-oral examination<br>- Laboratory investigations required in dental practice |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles . These lectures include power point presentations, animations, white board classic explanations, discussions, critical reviewing, |

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| | interaction, students' search and assignments.<br>- Tutorials to help understanding these principles<br>- Clinic to apply those principles with case presentations. |
| 6- Learning & Teaching Strategies for Students under Probation: | - Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Research presentation on any of the studied topics<br>- Clinical exam to test students' ability to diagnose different oral conditions.<br>- Oral exam to assess their understanding , communication skills and problem -solving abilities<br>- Three –hour final written exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In course tests & quizzes 20%<br>Midterm exam 10%<br>Clinical exam 20%<br>Oral exam 10%<br>End of semester written exam 40%<br>Total *100%* |
| 8- List of References: | |
| i. Handouts & Lecture Notes | - The course leader will distribute handouts and a digital copy on CD-ROM at the beginning of the semester. New package of educational tools that cover the whole curriculum of the course will be included in the CD and will be easily accessible using the University website with links to web-based resources. |
| ii. Reference Textbooks | - Scully C. Oral and Maxillofacial Medicine: The Basis of Diagnosis and Treatment. Churchill Livingstone, 2013.<br>- Newland R, Meiller T, Wynn R, Crossley H. Oral Soft Tissue Diseases: A Reference Manual for Diagnosis and Management. Lexi-Comp's, 2010.<br>- Ronald SB. Clinicians Guide to the Diagnosis and Treatment of Chronic Orofacial. American Academy of Oral Medicin, 2009. |

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|---|---|---|
| iii. | Suggested Reading Reference | Supplementary Readings:<br>- Bricker S, Langlais R, Miller C. Oral Diagnosis, Oral Medicine and Treatment Planning. Oxford, 2002.<br>- Laskaris G. Color Atlas of Oral Diseases 3rd Ed. Naklada Slap, Jastrebarsko, 2005.<br>- Langlais RP, Miller CS, Gehrig JS. Color Atlas of Common Oral Diseases, 2009 |
| iv. | Useful websites,…..etc. | Useful Websites<br>- http://www. Journal of Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology.com. |

Clinical Stage; First Semester

Course Outline

**Course Code**: OSA 411a

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Surgery and Anaesthesia

**Department:** Oral Surgery Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Magid Amin Mohamed Ahmed

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: HPT 361n

| 2- Aim of the Course |
|---|
| By the end of this course, students will be able to:<br>- Have basic knowledge about Oral and Maxillofacial Surgery as they relate to the general practitioner of dentistry, also perform different local anaesthetic techniques and begin basic exodontia steps, as well as developping an understanding of aseptic techniques, local anesthetic and exodontia techniques / armentarium, and principles of tooth extraction |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | The student should be able to:<br>- Understand and critically appraise the role of the Oral and Maxillofacial Surgeon<br>- Apprehend the mechanism of action of Local anaesthetic agents as well as different anaesthetic techniques<br>- Have knowledge of principles of sterilization disinfection & asepsis. |
| ii. Intellectual Skills | The student should be able to:<br>- Choose from the different aneasthetic techniques according to each case.<br>- Choose the appropriate indications and contraindications of basic exodontia. |
| iii. Practical & Professional Skills | The student should be able to:<br>- administer local anaesthesia in all areas of the oral cavity and manage potential complications relating to its use.<br>- perform simple tooth extraction. |
| iv. General & Transferable Skills | - The student should be able to:<br>- communicate the written and oral forms<br>- use modern technology<br>- work in a team<br>- solve problems<br>- develop the necessary interpersonal skills to interact at an appropriate professional level with their patients |

| 4- Course Content |
|---|
| - Introduction to OMFS / pain pathway / nerve supply of maxillary & mandibular teeth<br>- Armamentarium/Basic injection techniques<br>- Local anesthetic Maxillary / Mandibular techniques<br>- Anatomical considerations/Basic exodontia<br>- Exodontia / complications<br>- Complications of local anesthesia<br>- Pharmacology of Local anesthesia<br>- Infection control |

| 5- Learning & Teaching Strategies |
|---|
| - power point presentations in lectures and clinics,<br>- case studies {problem based learning}<br>- Practical demonstrations on local anesthetic techniques & simple extraction |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Special classes for revising weak points<br>- more attention<br>- restricted attendance<br>- more revisions |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests for continuous in-course assessment.<br>- Clinical exam to test their ability in diagnosing oral surgical conditions and local anaesthesia and exodontia.<br>- Oral exam to assess their understanding, communication skills and problem-solving abilities.<br>- One hour mid-term exam to assess their core theoretical knowledge.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | |
| iii. Assessment Pattern | In course tests & quizzes 10%<br>Midterm exam 10%<br>Clinical exam 30%<br>Oral exam 10%<br>End of semester written exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Handouts: oral surgery and anesthesia for dental students<br>- E-learning (Course lectures – Outline) |
| ii. Reference Textbooks | - Stanley F. Malamed. Handbook of Local Anesthesia. C.V. Mosby,2012 .<br>- Edward Ellis, James Hupp, Myron Tucker, Larry Peterson. Contemporary Oral and Maxillofacial Surgery. C.V. Mosby, 2002. |
| iii. Suggested Reading Reference | - Monheim's Local Anesthesia and Pain Control in Dental Practice. Mosby 1978<br>- Fonseca, Marciani, Turvey. Oral and maxillofacial Surgery.Saunders Elsevier Inc, 2009. |
| iv. Useful websites,…..etc. | - www.aaoms.org<br>- www.iaoms.org<br>- www.aocmf.aofoundation.org<br>- www.sciencedirect.com<br>- www.pubmed.com |

Clinical Stage; Second Semester

Course Outline

**Course Code**: RES 421n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Clinical Conservative and Esthetic dentistry

**Department:** Conservative and Esthetic dentistry

**Course Coordinator**: Professor Faten Kamel

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: RES 411

| 2- Objective of Course |
|---|
| Upon completing this course, students will be able to:<br>- Know the different methods of pain control and isolation of the operative field.<br>- Understand the causes and management of postoperative pain and hypersensitivity.<br>- Know how to manage deep carious lesions.<br>- Know how to select the suitable restorative material.<br>- Understand the oral environment and the different factors affecting it |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Discuss the importance and the different methods of operative field isolation.<br>- Explain the causes and management of post-operative pain and hypersensitivity.<br>- Discuss the different methods of pain control.<br>- Explain the different methods of deep carious lesions management<br>- Discuss the factors affecting the selection of a suitable restorative material<br>- Memorize the different factors affecting the oral environment. |
| ii. Intellectual Skills | - Distinguish the different methods and the importance of the operative field.<br>- Differentiate and analyze the causes of pain and hypersensitivity<br>- Distinguish the different methods of isolation of the operative field<br>- Distinguish and apply a treatment plan for deep caries.<br>- Explain and distinguish the most suitable restorative material according to oral environmental condition. |
| iii. Practical & Professional Skills | - Apply the most suitable method of isolation of the operative field.<br>- Discover the causes of pain.<br>- Apply the most recent method of pain control.<br>- Prepare and design a suitable treatment for deep |

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| | caries.<br>- Select the suitable restorative material after proper examination of the patient oral environmental conditions. |
| iv. General & Transferable Skills | - The students operate in the dental clinic under the supervision and evaluation of the department supervisor and teaching assistants who follow what he/ she are doing step by step.<br>- Students should develop confidence in themselves by working alone to the patients and feeling the patient satisfaction.<br>- The clever student should create his own patients that he/ she will be responsible of all their dental problems. |

4- Course Content

- Isolation of the operative field.
- Selection of restorative materials
- The oral environment.
- Pain and hypersensitivity.
- Management of deep caries
- Selection of restorative material
- Esthetic considerations in operative dentistry
- Management of deep and non carious lesions

5- Teaching / Learning Strategies:

- Lectures and tutorials
- Lab sessions with life demonstration and videos of all the practical steps.
- Brain storming, methods, group discussion, photographs, readings, role play, student lead seminars, case discussion, problem solving.

6- Learning & Teaching Strategies for Students under Probation

- Knowing their deficiencies and working on it by communicating with their families, giving them extra hours and quizzes, putting them under supervision and monitoring his/ her advance.

7- Student Assessment

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|---|---|
| i. Assessment Schemes | - Written quizzes and exams.<br>- Practical Lab exam to test their manual dexterity and skills in cavity preparation and filling.<br>- Oral discussion and exams to assess their communication skills and problem-solving abilities. |
| ii. Assessment Schedule | - Quizzes and oral discussion are held in the lab and lecture<br>- 1 hour midterm and 3 hours final written exam, oral and practical exams |
| iii. Assessment Pattern | In Course Tests and Quizzes 20%<br>Midterm Exam 10%<br>Practical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>Total 100% |

| 8- 8-List of References | |
|---|---|
| i. Handouts & Lecture Notes | - MSA University book and lecture power point presentation |
| ii. Reference Textbooks | - Fundamentals of Operative Dentistry, A Contemporary Approach, 4TH edition.<br>- Sturdevant's Art & Science of Operative Dentistry, 6th edition |
| iii. Suggested Reading Reference | - Essentials of operative dentistry, latest edition<br>- Textbook of operative dentistry, latest edition |
| iv. Useful websites,…..etc. | - Websites: Ebscohost, journal of operative dentistry and the Association of Dental Education in Europe (ADEE)<br>- Hands on extra courses: infection control. |

Clinical Stage; Second Semester

Course Outline

**Course Code**: RES 422n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Endodontics

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Dr Elham El Shaboury

**Level**: 4 **Credit Hours**: 2

**Prerequisites**: RES 412

| 2- Objective of Course |
|---|
| The course builds on the fundamentals taught in the preclinical course. It presents advanced techniques, case selection and treatment planning for advanced and complex Endodontic needs. |

| 3- Intended Learning Outcomes | | |
|---|---|---|
| i. | Knowledge& Understanding | - At end of this course, student should be able to<br>- Illustrate advantages, techniques, and limitations of radiographs in endodontic diagnosis and treatment.<br>- Illustrate physiological, histological, pathological picture of pulp and periapical tissues and management of their diseases.<br>- Discuss how to perform proper diagnosis using recent diagnostic aids to provide a differential diagnosis and develop a properly sequenced treatment plan.<br>- Identify and select appropriate endodontic emergency treatment method. |
| ii. | Intellectual Skills | - Collect, analyze and interpret data from the medical and dental histories and clinical evaluation to determine their relationship to the patient's endodontic treatment .<br>- Formulate a diagnosis, prognosis, and treatment plan for conditions that require endodontic treatment in support of total oral health of the patient, requesting information/consultation from other healthcare professionals as needed .<br>- Expose, process and point out differential interpretations of lesions and normal anatomic structures through radiographs and/or digital image.<br>- Judge different problems of technical and/or clinical work and apprise different solving probabilities based on sound knowledge.<br>- Manage time effectively and have good personal, teamwork, IT and operational skills in order to contribute to the efficient delivery of healthcare to an optimum quality standard. |

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| iii. | Practical & Professional Skills | - Integrate and link information gained from clinical examination with those gained from radiographic examination to reach a correct diagnosis and treatment plan.<br>- Provide endodontic treatment for cases with mild difficulty.<br>- Diagnose and treat periodontal disease and defects in conjunction with treatment of the specific tooth undergoing Endodontic therapy.<br>- Diagnose and manipulate traumatic injuries of teeth and their supporting structures. |
| iv. | General & Transferable Skills | - Practice the team work skill.<br>- Use information technology to improve the education through research work activities. |

| 4- Course Content |
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| - Treatment plan<br>- Case selection<br>- Pulp and periapical pathosis<br>- Emergency treatment. |

| 5- Teaching & Learning Strategies |
|---|
| - Lectures (Teaching aids: Data show, whiteboard, slide projector)<br>- Clinical demonstration. |

| 6- Student Assessment | | |
|---|---|---|
| i. | Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical requirements.<br>- Clinical exam to test their manual dexterity and skills in root canal preparation and filling.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three Hours final exam to assess their core theoretical knowledge. |
| ii. | Assessment Schedule | - Weekly quizzes<br>- Mid-term exam<br>- Final written oral and practical exams. |

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| iii. | Assessment Pattern | In Course Quizzes and clinical requirements 20%<br>Mid-term Exam 20%<br>Clinical Exam 30%<br>End of Semester Written Exam 30%<br>Total 100% |

| 7- List of References | | |
|---|---|---|
| i. | Handouts & Lecture Notes | - Prof.Dr. / Elham ElShaboury handouts<br>- Book issued by the Department of Endodontics |
| ii. | Reference Textbooks | - Pathways of the Pulp, 8th ed.Stephen Cohen; Richard C. Burns 2002<br>- Endodontics: Principles and Practice 6th ed. Mahmoud Torabinejad, Richard E. Walton 2008 |
| iii. | Suggested Reading References | - Endodontics, 6th ed.John I. Ingle; Leif K. Backland 2008<br>- Cohen's Pathways of the Pulp Expert Consult, 10th ed. Kenneth M. Hargreaves; Stephen Cohen; Louis H. Berman 2011 |
| iv. | Useful websites,…..etc. | - Online Dental Learning onlinedentallearning.com<br>- Journal of Endodontics<br>- International Journal of Endodontics |

Clinical Stage; Second Semester

Course Outline

**Course Code**: PRS 421n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Fixed Prosthodontics

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Nadia Fahmy

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: RES 412

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| 2- Objective of Course: | The course is a continuation of the course given in the previous semester. The course further guides the student to the clinical application of skills acquired in his previous crown and bridge training. |
| 3- Intended Learning Outcomes: | |
| i. 1-Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Understand posts and its clinical applications.<br>- Understand and evaluate the necessity of providing patients with provisional restorations.<br>- Critically evaluate the role of cements and the cementation procedures.<br>- Develop an understanding of tissue dilatation. |
| ii. Intellectual Skills: | - -Reflection upon the principles of clinical procedures as provisional restoration procedures,cementation procedures and tissue dilatations. |
| iii. Practical and Professional Skills: | - Ability to fabricate and place provisional restorations.<br>- Ability to manipulate different cementing materials.<br>- Ability to perform tissue dilatation. |
| iv. General and Transferable Skills: | - Use information technologies to enrich his practical experience.<br>- Recognize the basic concepts of practice management. |
| 4- Content | - Treatment plan.<br>- Bridge design.<br>- Post crown.<br>- Connectors.<br>- Precision attachment.<br>- Cements and cementation procedures.. |

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| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinic to apply those principles. |
| 6- Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to perform various crown and bridge procedures, tooth preparation and impression taking.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - 12 home assignments.<br>- six 10-min. quizzes.<br>- two 1.5-hr. tests.<br>- 1-hr. Midterm exam.<br>- 3-hr. Final exam. |
| iii. Assessment Pattern: | In course tests & quizzes 20%<br>Midterm exam 10%<br>Clinical exam 30%<br>Oral exam 10%<br>End of semester written exam 30%<br>_____<br>*Total* *100%* |
| 8- List of References: | |
| i. Handouts & Lecture Notes | - Lecture notes prepared by staff member. |
| ii. Reference Text: | - Edward W. Odell. Clinical Problem Solving in Dentistry. Churchill Livingstone, 2000.<br>- Herbert T. Shillingburg Jr, Sumiya Hobo, Lowell D. Whitsett, Richard Jacobi, Susan E. Brackett. Fundamentals of Fixed Prosthodontics. Quintessence Publishing, 1997. |
| iii. Supplementary Readings: | - -Fixed Prosthodontics –Principles and Clinics .H.W.Anselm Wiskott.<br>- Quintessence Publishing 2003. |
| iv. Useful websites,…..etc. | - Useful Websites<br>Ebscohost |

Clinical Stage; Second Semester

# Course Outline

**Course Code**: PRS 422n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Removable Prosthodontics

**Department:** Prosthodontics Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Essam Adel Aziz

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: PRS 412

| 2 -Objective of Course |
|---|
| Describe and justify the principles of removable partial prosthodontics.<br>To be aware of the biomechanical considerations in design.<br>Understand the mechanical and biological principles of the components used for removable partial dentures.<br>Diagnose and reach a reliable treatment plan for partially edentulous patients.<br>To achieve practical goals for treatment of patients on an individual and fundamental basis. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - List different secondary impression techniques.<br>- Diagnosis of different partially edentulous patients.<br>- Differentiate types of partially edentulous patients.<br>- State partially edentulous classification. |
| ii. Intellectual Skills | - Describe techniques of jaw relation.<br>- Recognize cases that require support.<br>- Distinguish between cases that need support from cases that don't. |
| iii. Practical & Professional Skills | - Prepare different types of rest seats.<br>- Choose different components of partial denture. |
| iv. General & Transferable Skills | - How to educate the patient to accommodate with the constructed prosthesis. |

| **4- Course Content** |
|---|

- Introduction
- Diagnosis.
- Surveying.
- Problems of partial denture cases
- Mouth preparation
- Final impression.
- Metal framework try in
- Jaw relation
- insertion
- Patient complaints

**5- Learning & Teaching Strategies**

- Lectures
- Presentations
- Clinical case demonstration

**6- Learning & Teaching Strategies for Students under Probation**

- Extra lectures.

**7- Student Assessment**

| | |
|---|---|
| i. Assessment Schemes | - Quizzes<br>- Written exam<br>- Oral exam<br>- Practical exam |
| ii. Assessment Schedule | - Mid-term exam : mid-year<br>- Final exam : at the end of the semester<br>- Oral exam : around the final exam<br>- Quizzes: 5th and 8th week. |
| iii. Assessment Pattern | In course tests & quizzes 20%<br>Midterm exam 10%<br>Clinical exam 30%<br>Oral exam 10%<br>End of semester written exam 30%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | |
| ii. Reference Textbooks | - Department's Book |
| iii. Suggested Reading Reference | - Rodney, Stewart's Clinical Removable Partial Prosthodontics, Fourth Edition, 2008 |
| iv. Useful websites,…..etc. | |

Clinical Stage; Second Semester

Course Outline

**Course Code**: POD 421n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Orthodontics-2

**Department:** Department of Paedodontics and Orthodontics

**Course Coordinator**: Professor Wael Attiya

**Level**: 4 **Credit Hours**: 2

**Prerequisites**: POD 361

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| | |
|---|---|
| 2- Objective of Course: | The course prepares the student to clinically manage patients with orthodontic problems by developing his skills in diagnosis and treatment plan. Emphasis will be laid on the biological and technological principles of orthodontic tooth movement. Laboratory sessions are included to demonstrate and develop most of the technical skills required for the graduate to be able to provide limited clinical orthodontic treatment. Laboratory exercises involve cephalometric and cast analysis. The course enables the student to participate in the prevention of the development of occlusal abnormalities and prepares him/her for future advanced postgraduate studies. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding : | Upon completing this course, students will be able to:<br>- Show a deep understanding of the basics of diagnosis.<br>- Understand and evaluate the role of orthodontics in overall patient care.(preventive orthodontics).<br>- Understand the appropriate timing of interventions and what they are likely to be.<br>- Know when and which cases to refer to specialist advice and care. |
| ii. Intellectual Skills: | - Prepare the student to make a proper diagnosis and treatment plan, differentiate between the orthodontic problems and understanding the factors may lead to relapse. |
| iii. Practical & Professional Skills: | - Acquire and enhance the skills to reach a proper diagnosis.<br>- Ability to design an appropriate a suitable treatment plan.<br>- Ability to fabricate simple orthodontic appliances. |
| iv. General & Transferable Skills: | |

| | |
|---|---|
| 4- Course Content: | - Diagnosis.<br>- Orthodontic appliances.<br>- Tissue changes associated with orthodontic treatment<br>- Anchorage in orthodontics.<br>- Principles of tooth movement.<br>- .Retention in orthodontics.<br>- Orthodontic relapse. |
| 4- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Lab work to acquire and enhance manual dexterity.<br>- Clinic to apply the principles related in the theoretical part. |
| 5- Learning & Teaching Strategies for Students under Probation | - Guide the student to refer to e-learning where the students will find all lectures and practical training. Provide extra classes, more revision, and Personal Assistance |
| 6- Student Assessment | |
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Practical exam to test their abilities and dexterity in wire bending and fabricating simple orthodontic appliances.<br>- Clinical exam to assess their ability to diagnose different orthodontic cases.<br>- Oral exam to assess their understanding, communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In course tests & quizzes 10%<br>Midterm exam 10%<br>Practical exam 30%<br>Oral exam 10%<br>End of semester written exam 40%<br>_____<br>Total 100% |
| 7- List of References: | |
| i. Handouts & Lecture Notes | - The course leader will distribute handouts at the beginning of the semester that cover the whole curriculum of the course. |
| ii. Reference Textbooks | - Reference Text: |

| | |
|---|---|
| iii. Suggested Reading Reference | - Orthodontics<br>Current principles and techniques<br>Graber- Vanarsdall - Vig<br>2012<br>- 8-3-2 Contemporary Orthodontics<br>William R. Proffit<br>2007<br>- Handbook of Orthodontics<br>Cabourne - Diabias<br>2010<br>- Current therapy in Orthodontics<br>Nanda – Kapile<br>2010 |
| iv. Useful websites,…..etc. | Useful Websites |

Clinical Stage; Second Semester

Course Outline

**Course Code**: SGS 421n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Medicine

**Department:** General Medicine Department, Faculty of Medicine, Cairo Univ.

**Course Coordinator**: Dr Ahmed Abdel Hakim

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: SGS 411

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|---|---|
| 2- Aim : | The course is aimed at teaching the student the principles of internal medicine as they pertain to provision of dental care. This course focuses on the aetiology, clinical manifestations and treatment of disease including diseases of the endocrine system, neurological diseases and oncology. There is also a course on skin and venereal diseases and their oral manifestations. |
| 3- Intended Learning Outcomes | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Develop an increasing awareness of the basics of internal medicine.<br>- Explore and reflect upon the relationship between internal medicine and the practice of dentistry.<br>- Develop effective communication skills with patients, their relatives and fellow medical practitioners.<br>- Be familiar with the pathological features and dental relevance of common disorders of the major organ systems. |
| ii. Intellectual Skills: | |
| iii. Practical and Professional Skills: | - Ability to deal with patients suffering from systemic diseases such as cardiac and diabetic patients and communicate with patients affected by general diseases in the dental setting.<br>- Ability to take a proper medical history, especially concerning cardio-respiratory diseases, haemorrhagic disorders, allergy and drug therapy.<br>- Have knowledge about diagnosing medical emergencies and delivering suitable emergency drugs using, where appropriate, intravenous techniques. |

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|---|---|
| iv. General and Transferable Skills: | |
| 4- Syllabus: | Topics<br>- Diseases of the nervous system.<br>- Diseases of the endocrine glands.<br>- Rheumatic and rheumatoid arthritis.<br>- Skin and venereal diseases and their oral manifestations. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinical rounds. |
| 6- Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and personal assistance |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to physically examine patients and diagnose certain medical conditions of importance to the dentist.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In course tests & quizzes 10%<br>Midterm exam 10%<br>Clinical exam 10%<br>Oral exam 15%<br>End of semester written exam<br>55% (40 + 15 dermatology and venereal)<br>Total 100% |
| 8- List of References | |
| i. Handouts & Lecture Notes | - The course leader will distribute handouts at the beginning of the semester that cover the whole curriculum of the course. |
| ii. Reference Text: | - R. W Matthews. Aids to Medicine for Dental Students. Churchill Livingstone,1973 . |

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|---|---|
| iii.Supplementary Readings: | - Prasanna Sooriakumaran. Key Topics In Human Diseases for Dental Students. Taylor & Francis Group, 2005.<br>- Crispian Scully, Roderick A. Cawson. Medical Problems in Dentistry, 4th ed. Butterworth-Heinemann, 1998. |
| iv. Useful websites,…..etc. | **Useful Websites** |

Clinical Stage; Second Semester

Course Outline

**Course Code**: SGS 422n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: General Surgery

**Department:** General Surgery Department, Faculty of Medicine, Cairo Univ.

**Course Coordinator**: Professor Ahmed Farghaly

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: SGS 412

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|---|---|
| 2- Aim : | The course is designed to provide further understanding of general surgery. It prepares the dental student to know how to deal with general problems such as management of trauma, sepsis and asepsis, emergency care, in order to comprehend the oral surgery course later on in his study. The course also includes lectures on ophthalmology and ear, nose and throat surgery and the relationship between ear, nose and throat as well as ophthalmology to diseases of the oral cavity. |
| 3- Intended Learning Outcomes | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Have a deep understanding of principles of surgical intervention.<br>- Recognize and evaluate the basis of occurrence of diseases that need to be referred to a specialist.<br>- Ability to observe and interpret physical signs in his clothed patients. |
| ii. Intellectual Skills: | |
| iii. Practical and Professional Skills: | - Ability to manage simple wounds.<br>- Ability to manage simple surgical problems in the dental setting.<br>- Ability to administer first aid and cardiopulmonary resuscitation.<br>- Ability to administer intra-muscular, intravenous and subcutaneous injections.<br>- Be competent at carrying out resuscitation techniques and immediate management of cardiac arrest, anaphylactic reaction, upper respiratory obstruction, vasovagal attack, haemorrhage, inhalation or ingestion of foreign bodies, and diabetic coma. |
| iv. General and Transferable Skills: | |

| | |
|---|---|
| 4- Syllabus: | Topics<br>- Diseases of the thyroid gland.<br>- Principles of pre-operative and postoperative care.<br>- Postoperative complications.<br>- Diseases of the eyes and eye surgery.<br>- Ear, nose and throat surgery for dentists.<br>- Diseases of the paranasal sinuses. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinical rounds.<br>- |
| 6- Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to physically examine patients and diagnose certain surgical conditions of importance to the dentist.<br>- Oral exam to assess their communication skills and problem-solving abilities<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In course tests & quizzes 10%<br>Midterm exam 10%<br>Clinical exam 10%<br>Oral exam 15%<br>End of semester written exam<br>55% (40 + 15 dermatology and venereal)<br>_____\|<br>*Total* *100%* |
| 8- List of References | |
| i. Handouts & Lecture Notes | - The course leader will distribute hand-outs at the beginning of the semester that covers the whole curriculum of the course. |
| ii. Reference Text: | - Peter F. Lawrence, Peter F. Lawrence, Richard M. Bell, Merril T. Dayton. Essentials of General Surgery, 3rd ed. Lippincott Williams & Wilkins, 2000.<br>- D. MacLean, P.E. Preece. Lecture Notes on Clinical Medicine and Surgery for Dental Students. Year Book Medical Pub, 1976. |

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|---|---|
| iii. Supplementary Readings: | |
| iv. Software Requirement and Useful Websites | |

Clinical Stage; Second Semester

Course Outline

**Course Code**: OMD 421n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Medicine, Periodontology, Oral & Radiographic Diagnosis

**Department:** Department of Oral Medicine and Periodontology, Oral Radiology and Oral Diagnosis, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Hakem Hussein El Sayed

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: OMD 411n

| 2- Objective of Course |
|---|
| The course aims at providing students with specific knowledge about:<br>- Classification of different types of oral ulcerations, white and red lesions as well as oral pigmented lesions<br>- The nature, etiology, clinical picture, diagnostic procedures and complications of the previously listed oral lesions.<br>- The differential diagnosis of the most common oral ulcerations , white , red lesions and pigmented lesions.<br>- The management strategies for most common oral mucosal lesions |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Upon completion of this course, the student must understand and know how to:<br>- Memorize the principles of pathogenic mechanisms of different oral lesions.<br>- Identify the etiology of each lesion.<br>- recognize the clinical manifestations of different oral lesions.<br>- Recall the categorization of oral mucosal lesions according to their clinical presentation (ulcers, white ,red and pigmented lesions)<br>- Identify the difference between primary oral lesions & those secondary to systemic diseases.<br>- List the possible complications of oral lesions.<br>- Recognize basics of prevention of most common oral diseases.<br>- Identify the basic diagnostic procedure for diagnosis of different categories of oral diseases.<br>- Relate the clinical and diagnostic investigations findings of different oral conditions<br>- State management of different oral lesions , and when should he refer the case to a certain specialist.<br>- Identify oral lesions that have a premalignant |

| | |
|---|---|
| | character.<br>- Estimate the risk factors in dental treatment that could lead to development of oral lesions. |
| ii. Intellectual Skills | - Assemble basic biomedical, behavioral and dental sciences with clinical presentation and special investigation of the disease.<br>- Differentiate between normal and abnormal features relevant to oral and surrounding mucosa.<br>- Analyze, interpret, and integrate collected diagnostic data to solve clinical problems<br>- Design appropriate treatment plans for different oral lesions.<br>- Assess and evaluate the effects of medications taken by the patient on disease management.<br>- Argue deductively in clinical problem solving |
| iii. Practical & Professional Skills | - Upon completing this course ,students will be able to :<br>- Review a comprehensive patient's history, operate clinical examination, and estimate the recommended investigations.<br>- Identfy abnormal and pathological conditions, as well as etiological and/or risk factors that may contribute to disease process.<br>- Apply the rules of differential diagnosis to any oralm mucosal lesion to reach final diagnosis.<br>- Choose the available lab investigations to discover the nature of oral mucosal lesions<br>- Select treatment options of simple oral lesions and predict treatment outcomes. |
| iv. General & Transferable Skills | - Work In collaboration as a member of an interdisciplinary team.<br>- Recognize and effectively utilize all sources of self learning.<br>- Use information technologies to enrich and diversify the obtained knowledge. |

| 4- Course Content |
|---|
| - Oral ulcers.<br>- White and red lesions<br>- Pigmented lesions |

| 5- Learning & Teaching Strategies |
|---|

- Lectures to explain underlying principles . These lectures include power point presentations, animations, white board classic explanations , discussions, seminars , critical reviewing, interaction, students' search and presentations .
- Clinical sessions to help understanding these principles.
- group demonstrations.
- one –to-one supervised clinical work.

6- Learning & Teaching Strategies for Students under Probation

- one –to-one demonstration.
- remedial teaching
- compensatory teaching

7- Student Assessment

| | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests , multiple choice exams for continuous in-course assessment .<br>- Research presentation on any of the studied topics<br>- Clinical exam to test students' ability to diagnose different oral conditions .<br>- Oral exam to assess their understanding , communication skills and problem -solving abilities<br>- Three –hour final written exam to assess their core theoretical knowledge . |
| ii. Assessment Schedule | - 4 th week:quiz 1<br>- 8 th week :quiz 2.<br>- Mid term exam.<br>- Final practical exam.<br>- Final written Exam.<br>- Final Oral Exam. |
| iii. Assessment Pattern | In course tests & quizzes 20%<br>Midterm exam 10%<br>Clinical exam 20%<br>Oral exam 10%<br>End of semester written exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Handouts and lecture notes.<br>- lectures uploaded on the E learning system of the university. |
| ii. Reference Textbooks | - Burkets Oral medicine(12th edition-2014)<br>- Cawson's essentials of oral pathology & oral medicine (8th Edition-2008.)<br>- Color Atlas of Oral Diseases 3rd 2005 |
| iii. Suggested Reading Reference | - Silverman S, Eversole L ,and Truelove E,: Essentials of oral medicine,2008.<br>- Scully C:Hand book of oral diseases-diagnosis and management,2011 |
| iv. Useful websites,…..etc. | - Google Scholer<br>- Pubmed<br>- Medline |

Clinical Stage; Second Semester

Course Outline

**Course Code**: OSA 421n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Surgery and Anaesthesia

**Department:** Oral Surgery Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Magid Amin Mohamed Ahmed

**Level**: 4 **Credit Hours**: 3

**Prerequisites**: OSA 411a

| 2- Aim of the Course |
|---|
| By the end of this course, the student should be able to:<br>- Diagnose and manage maxillary sinus diseases, comprehend the different oral flap designs and how to use them in surgical exodontia, understand and apply the right management of medically compromised patients, also understand and assess cases needing pre-prosthetic surgeries |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | The student should be able to:<br>- recognize maxillary sinus problems and explain its management<br>- comprehend the management of medically compromised patients in order to implement it during the dental treatment<br>- recognize the cases needing pre-prostheic surgeries and know how to manage them<br>- understand different surgical flap designs in order to apply them in surgical exodontial |
| ii. Intellectual Skills | The student should be able to:<br>- seek out, analyse diagnostic data to solve clinical problems.<br>- estimate the effect of medications taken by the patients on dental management<br>- demonstrate an ability to prepare appropriate diagnosis, treatment plan for patients seeking dental treatment. |
| iii. Practical & Professional Skills | The student should be able to:<br>- perform surgical flaps and surgical exodontia<br>- assess and manage medically compromised patients.<br>- perform difficult extractions of teeth.<br>- diagnose and manage maxillary sinus problems<br>- comprehend pre-prosthetic surgeries. |

| | |
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| iv. General & Transferable Skills | - The student should be able to:<br>- Develop analytical and presentation skills through the preparation, delivery and participation in seminars.<br>- demonstrate the proper communication skills and respect to the patients |

| 4- Course Content |
|---|
| - management of impacted teeth ,<br>- management of medically compromised patients,<br>- surgical exodontias and flap design,<br>- pre-prosthetic surgery,<br>- maxillary sinus |

| 5- Learning & Teaching Strategies |
|---|
| - power point presentations in lectures and labs,<br>- case studies at the labs{problem based learning} |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - more quizzes,<br>- more attention,<br>- restricted attendance,<br>- more revisions |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability in diagnosing oral surgical conditions and in exodontia.<br>- Oral exam to assess their understanding, communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | |

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|---|---|---|
| iii. | Assessment Pattern | In course tests & quizzes 10%<br>Midterm exam 10%<br>Clinical exam 30%<br>Oral exam 10%<br>End of semester written exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | |
| ii. Reference Textbooks | - Stanley F. Malamed. Handbook of Local Anesthesia. C.V. Mosby,1996 .<br>- Edward Ellis, James Hupp, Myron Tucker, Larry Peterson. Contemporary Oral and Maxillofacial Surgery. C.V. Mosby, 2002.<br>- Edward W. Odell. Clinical Problem Solving in Dentistry. Churchill Livingstone, 2000. |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | |

Clinical Stage; Third Semester

Course Outline

**Course Code**: RES 531n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Clinical Conservative and Esthetic dentistry

**Department: Conservative and Esthetic dentistry**

**Course Coordinator**: Professor Faten Kamel

**Level**: 5 **Credit Hours**: 3

**Prerequisites**: RES 421

| 2- Objective of Course |
|---|
| - Upon completing this course, students will be able to:<br>- Understand the causes of failure of dental restorations and learn how to repair them.<br>- Understand and apply the different methods of adhesion to the tooth structure.<br>- Properly manage cases of badly broken down teeth.<br>- Know the esthetic consideration and the different methods of colour and shade selection<br>- Understand and manage non carious lesions. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Explain the causes of failure of dental restorations and discuss how to repair them.<br>- Summarize the methods of adhesion to the tooth structure.<br>- Distinguish cases of mutilated teeth.<br>- Recognize the esthetic consideration and thr different methods of colour and shade selection.<br>- Identify the different non carious lesions. |
| ii. Intellectual Skills | - Solving the problems of restoration failure and practice how to repair it.<br>- Develop and design a treatment plan suitable for patients with mutilated teeth.<br>- Assess the different methods of treating esthetic defects.<br>- Discuss the different methods of adhesion to the tooth structure<br>- Compare between the different non carious lesions |
| iii. Practical & Professional Skills | - Operate in the dental clinic following the recent techniques of infection control and after isolating the operative field using the rubber dam.<br>- Select the suitable treatment plan suitable for mutilated teeth.<br>- Apply the different methods of colour and shade selection.<br>- Demonstrate the causes of failure of dental |

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|---|---|
| | restorations.<br>- Choose the proper management of non carious lesions<br>- Solve some of the esthetic problems. |
| iv. General & Transferable Skills | - The students operate in the dental clinic under the supervision and evaluation of the department supervisor and teaching assistants who follow what he/ she are doing step by step.<br>- Students should develop confidence in themselves by working alone to the patients and feeling the patient satisfaction.<br>- The clever student should create his own patients that he/ she will be responsible of all their dental problems. |

| 4- Course Content |
|---|
| - Failure and repair of dental restoration<br>- Principles of adhesion<br>- Management of mutilated teeth<br>- Esthetic consideration and shade and color selection<br>- Non carious lesions |

| 5- Teaching / Learning Strategies: |
|---|
| - Lectures and tutorials<br>- Lab sessions with life demonstration and videos of all the practical steps.<br>- Brain storming, methods, group discussion, photographs, readings, role play, student lead seminars, case discussion, problem solving. Learning & Teaching Strategies |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Knowing their deficiencies and working on it by communicating with their families, giving them extra hours and quizzes, putting them under supervision and monitoring his/ her advance. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes and exams.<br>- Practical Lab exam to test their manual dexterity and skills in cavity preparation and filling.<br>- Oral discussion and exams to assess their communication skills and problem-solving abilities. |

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|---|---|
| ii. Assessment Schedule | - Quizzes and oral discussion are held in the lab and lecture<br>- 1 hour Midterm and 3 hours final written exam, oral and practical exams |
| iii. Assessment Pattern | In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - MSA University book and lecture power point presentation |
| ii. Reference Textbooks | - Fundamentals of Operative Dentistry, A Contemporary Approach, 4TH edition.<br>- Sturdevant's Art & Science of Operative Dentistry, 6th edition<br>- Contemporary Esthetic Dentistry, latest edition |
| iii. Suggested Reading Reference | - Essentials of operative dentistry, latest edition<br>- Textbook of Operative Dentistry, latest edition<br>- Guidelines for Adhesive Dentistry: The Key to Success<br>- Adhesive Technology for Restorative Dentistry by Jean Francois Roulet |
| iv. Useful websites,…..etc. | - Websites: Ebscohost, journal of operative dentistry, Association of Dental Education in Europe (ADEE)<br>- Hands on extra courses: anterior and posterior composite, bleaching and laminate veneers. |

Clinical Stage; Third Semester

Course Outline

**Course Code**: PRS 531n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Fixed Prosthodontics

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Nadia Fahmy

**Level**: 5 **Credit Hours**: 3

**Prerequisites**: PRS 421n

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| 2- Aims: | - The course introduces the student to the more advanced techniques of fixed prosthodontics preparation and construction. Instruction is aimed at furthering the student's diagnosis and treatment planning skills, along with the execution of more advanced fixed prosthodontics. It also presents more advanced techniques and treatment planning for advanced and complex fixed prosthodontic needs as well as the principles of crown and bridge in ceramic. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge and Understanding: | - Upon completing this course, students will be able to:<br>- Review and evaluate the principles necessary to provide patients with ceramic and ceramo-metallic fixed prosthodontics.<br>- Assesment and clinical examination of patient for proper treatment planing.<br>- Preparation of laminate veneer and resin bonded bridge. |
| ii. Intellectual Skills: | - -Reflection upon the principles of diagnosis and treatment planning for different ceramic restorations.<br>- -Selection of proper restorations according to every case for accurate treatment plan. |
| iii. Practical and Professional Skills: | - Ability to fabricate post and core crowns , ceramo-metallic and all ceramic fixed prosthodontics.<br>- Ability to manipulate the dental and periodontal tissues during preparation and construction of fixed prosthodontics. |
| iv. General and Transferable Skills: | - -Use information technologies to enrich his practical experience.<br>- -Recognize the basic concepts of practice management. |

| | |
|---|---|
| 4- Content | - Esthetics.<br>- Color and shade selection.<br>- Ceramo-metallic restorations.<br>- Modern ceramics.<br>- Laminate veneer restorations.<br>- Resin bonded restorations. |
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinic to apply those principles. |
| 6- Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment: | |
| i. 1-Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to perform various crown and bridge procedures, tooth preparation and impression taking.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. 2-Assessment Schedule | - 12 home assignments.<br>- six 10-min. quizzes.<br>- two 1.5-hr. tests.<br>- 1-hr. Mid term exam.<br>- 3-hr. Final exam. |
| iii. 3-Assessment Pattern: | In course tests & quizzes 20%<br>Midterm exam 10%<br>Clinical exam 30%<br>Oral exam 10%<br>End of semester written exam 30%<br>Total 100% |
| 8- List of References: | |
| i. Handouts & Lecture Notes | - Lecture notes prepared by staff member. |
| ii. Reference Text: | - Edward W. Odell. Clinical Problem Solving in Dentistry. Churchill Livingstone, 2000.<br>- Herbert T. Shillingburg Jr, Sumiya Hobo, Lowell D. Whitsett, Richard Jacobi, Susan E. Brackett. Fundamentals of Fixed Prosthodontics. Quintessence Publishing, 2006. |

| | |
|---|---|
| iii. Supplementary Readings: | - -Fixed prosthodontics –Principles and Clinics .H.W.Anselm Wiskott.<br>- Quintessence Publishing 2011.<br>- -The Science and Art of Porcelain Laminate Veneer.Galip Gurel.Quint-<br>- essence publishing 2003. |
| iv. Useful websites,…..etc. | - Useful Websites<br>- Ebscohost. |

Clinical Stage; Third Semester

Course Outline

**Course Code**: PRS 532a

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Removable Prosthodontics

**Department:** Prosthodontics Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Essam Adel Aziz

**Level**: 5 **Credit Hours**: 3

**Prerequisites**: PRS 422n

| 2- Objective of Course |
|---|
| - Develop and plan for the management of advanced prosthetic cases.<br>- Demonstrate sound knowledge of the biological and technical aspects of complete dentures and their integration with the clinical procedures.<br>- Apply the clinical procedures related to the construction of the removable partial denture.<br>- To achieve practical goals for treatment of patients on an individual and fundamental basis. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - List different types of attachments.<br>- Recognizing the various causes of flat flabby ridges.<br>- Recalling the sequela of single denture and combination syndrome. |
| ii. Intellectual Skills | - Explain the different theories of occlusion for abused oral tissues.<br>- Compose a treatment plan for various edentulous arches. |
| iii. Practical & Professional Skills | - Relate the various impression techniques and comply it with the cases.<br>- Designing of partial or complete overdenture with various attachments. |
| iv. General & Transferable Skills | - Put into practice different impression techniques<br>- Deduce the patient's needs for removable prosthesis<br>- Overcome difficulties that may hinder the prosthesis<br>- construction by the knowledge of attachments. |

| 4- Course Content |
|---|

- Management of abused oral tissues.
- Single denture.
- Various types of dental attachements.
- Theory of dental occlusion
- Other forms of partial denture
- Geriatric patients.

5- Learning & Teaching Strategies

- Lectures
- Presentations
- open discussion in lecture time
- student participation in quiz making

6- Learning & Teaching Strategies for Students under Probation

- Extra lectures.

7- Student Assessment

| | |
|---|---|
| i. Assessment Schemes | - Quizzes<br>- Written exam<br>- Oral exam<br>- Practical exam |
| ii. Assessment Schedule | - Mid-term exam : mid-year<br>- Final exam : at the end of the semester<br>- Oral exam : around the final exam<br>- Quizzes: 5th and 8th week. |
| iii. Assessment Pattern | In course tests & quizzes 10%<br>Midterm exam 10%<br>Clinical exam 30%<br>Oral exam 10%<br>End of semester written exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Lecture Notes |
| ii. Reference Textbooks | - Department's Book |
| iii. Suggested Reading Reference | - Winkler, S.: Essentials of Complete Denture Prosthodontics 2008 |
| iv. Useful websites,…..etc | |

Clinical Stage; Third Semester

Course Outline

**Course Code**: RES 532n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Endodontics

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Dr Elham El Shaboury

**Level**: 5 **Credit Hours**: 3

**Prerequisites**: RES 422

| 2- Objective of Course |
|---|
| - The study encompasses the etiology, diagnosis, prevention and treatment of pulp and periapical diseases, as well as endodontic-periodontal problems, and tooth resorption. |

| 3- Intended Learning Outcomes | | |
|---|---|---|
| i. | Knowledge& Understanding | - At end of this course, student should be able to<br>-<br>- Describe Microbiology of the dental pulp.<br>- Define and describe different types of endo-perio problem<br>- Differentiate between different types of root resorption, their management and prognosis<br>- Recognize pharmacologic supportive therapy (analgesics, antibiotics, and anti-inflammatory agents) used in endodontic problems and its role in controlling pain and infection<br>- State different bleaching materials and aesthetic principles required for vital and non-vital teeth. |
| ii. | Intellectual Skills | |
| iii. | Practical & Professional Skills | - Provide appropriate emergency treatment to relieve pain and resolve infections of endodontic origin.<br>- Perform intra and extra-coronal bleaching procedures using different recent techniques. |
| iv. | General & Transferable Skills | - Practice the team work skill.<br>- Use information technology to improve the education through research work activities. |

| 4- Course Content |
|---|
| - Tooth resorption<br>- Endodontic periodontal interrelationship<br>- Microbiology of endodontics infection<br>- Bleaching of discolored teeth<br>- Pain Control |

| 5- Teaching & Learning Strategies |
|---|
| - Lectures (Teaching aids: Data show, whiteboard, slide projector)<br>- Clinical demonstration. |

| 6- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical requirements.<br>- Clinical exam to test their manual dexterity and skills in root canal preparation and filling.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three Hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Weekly quizzes<br>- Mid-term exam<br>- Final written oral and practical exams |
| iii. Assessment Pattern | In Course Quizzes and clinical requirements 10%<br>Mid-term Exam 10%<br>Clinical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |

| 7- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Prof.Dr. / Elham ElShaboury handouts<br>- Book issued by the Department of Endodontics |
| ii. Reference Textbooks | - Pathways of the Pulp, 8th ed.Stephen Cohen; Richard C. Burns 2002<br>- Endodontics: Principles and Practice 6th ed. Mahmoud Torabinejad, Richard E. Walton 2008 |
| iii. Suggested Reading References | - Endodontics, 6th ed.John I. Ingle; Leif K. Backland 2008<br>- Cohen's Pathways of the Pulp Expert Consult, 10th ed. Kenneth M. Hargreaves; Stephen Cohen; Louis H. Berman 2011 |
| iv. Useful websites,…..etc. | - Online Dental Learning onlinedentallearning.com<br>- Journal of Endodontics<br>- International Journal of Endodontics<br>- |

Clinical Stage; Fourth Semester

Course Outline

**Course Code**: POD 532n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Paedodontics-1

**Department:** Department of Paedodontics and Orthodontics

**Course Coordinator**: Professor Nevine G. Wali

**Level**: 5 **Credit Hours**: 2

**Prerequisites**: RES 421n

| 2- Objective of Course |
|---|
| By the end of this course students should be prepared to:<br>- Recognize the predisposing and etiological factors that require intervention to promote oral health<br>- Plan appropriate oral health programs for the community<br>- Provide preventive measures and instruction in oral health with the aim of preventing dental diseases. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | By the end of this course, students should be able to:<br>- define the levels of prevention of dental diseases<br>- review the objectives of prevention for individual and community<br>- describe diet history analysis<br>- identify diet control measures<br>- identify the need for fluoride application<br>- explain the manifestations of fluoride toxicity<br>- describe emergency treatment of acute fluoride toxicity<br>- discuss methods of fluoride application<br>- determine the need for fissure sealant<br>- interpret risk factors for dental caries<br>- discuss preventive resin restoration<br>- describe different plaque control techniques<br>- recognize predisposing and etiological factors of various dental diseases<br>- review preventive measures for periodontal diseases<br>- describe preventive measures for traumatic injuries<br>- describe preventive measures for oral cancer<br>- outline the objectives of epidemiological studies<br>- list the types of studies<br>- list the steps needed to make an epidemiologic investigation<br>- outline the various indices for dental caries |

| | |
|---|---|
| | - review the advantages of group practice<br>- formulate the needs and demands for dental care |
| ii. Intellectual Skills | By the end of this course, students should be able to:<br>- differentiate the various levels of prevention of dental diseases<br>- discuss diet modifications needed for various cases<br>- propose diet recommendations for dental patients at different ages<br>- distinguish the clinical picture of fluorosis<br>- explain manifestations of acute fluoride toxicity<br>- evaluate the need for professional fluoride application<br>- decide the suitable fluoride application technique foe various age and risk group<br>- discuss the need for fissure sealants<br>- justify the need for preventive resin restoration<br>- appraise the different plaque control measures<br>- detect the need for preventive measures for traumatic injuries<br>- identify patients at high risk to dental diseases<br>- indicate the various preventive measures of different dental diseases.<br>- recognize risk factors for the various dental diseases<br>- discuss the required preventive measures for each dental condition<br>- categorize epidemiological studies<br>- evaluate caries indices<br>- discuss group practice in dentistry<br>- detect needs and demands of community for oral health care |
| iii. Practical & Professional Skills | By the end of this course, students should be able to:<br>- assess the need for preventive measures<br>- plan preventive oral health programs.<br>- provide preventive measures of dental caries.<br>- demonstrate the various plaque control measures to the dental patient.<br>- instruct dental patients for oral hygiene measures.<br>- apply fluoride varnish in a child patient<br>- perform pit and fissure sealant in a child patient<br>- calculate caries indices according to clinical findings<br>- diagnose oral cancerous lesions from clinical findings<br>- use caries risk assessment tools in evaluating risk status of dental patient<br>- analyze diet history of dental patient |
| iv. General & Transferable Skills | - By the end of this course, students should be able to:<br>- work in groups<br>- demonstrate self-confidence and full control in the dental session<br>- manage time, set priorities and work to prescribed time limit<br>- demonstrate respect to all patients irrespective of |

| | |
|---|---|
| | their socioeconomic level and cultural belief<br>- show honesty and compassion to gain trust of both child and parent<br>- use the internet sources to reach evidence based data. |

4- Course Content

- Definition and objectives of preventive dentistry.
- levels of prevention.
- Primary prevention
- Secondary prevention
- Tertiary prevention
- prevention of dental caries
- Diet control
    - Reduction of carbohydrate intake
    - Dietary recommendations
    - Dietary recommendations
    - caries inhibiting agents
- Diet history analysis
- Increasing tooth resistance
    - Fluorides
    - Distribution of fluoride in teeth
    - Uptake of fluoride by teeth
    - Mode of action of fluorides:
    - Systemic fluoride administration
    - Topically applied fluorides
    - Toxicity of fluoride.
- Fissure Sealants
- Peventive resin restorations
- Plaque control
- Prevention of periodontal diseases
- Causes of periodontal diseases
- Dental prophylaxis
- Prevention of malocclusion
- Interceptive measures in primary dentition
- Interceptive measures in mixed dentition
    - Prevention of traumatic injuries
    - Prevention of oral cancer
    - Introduction to epidemiology
    - Epidemiology of dental caries
    - Indices for assessment of dental caries
    - Group practice and team work
    - Needs and demands of oral care

5- Learning & Teaching Strategies

- Lectures
  - nteractive learning (such as: picture prompt, choral response, think-pair-share, problem solving…..etc)
  - Visual aids (showing illustrations, pictures, x rays, models, appliances…… etc)
- Clinical Demonstrations
  - group demonstrations
  - one-to-one supervised clinical work
- Assignments
  - review on certain topics to be searched on the web and presented by a team of students

| 6- Learning & Teaching Strategies for Students Under Probation |
|---|
| - one-to-one demonstration<br>- remedial teaching (such as re-teaching the content, directed paraphrasing, making meaningful connections…etc)<br>- compensatory teaching (such as pictures vswords, simulations, discussion……etc) |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes and exams<br>- Practical exam<br>- Oral exam<br>- Assignment |
| ii. Assessment Schedule | - 4th week: Quiz 1<br>- 7th-8th week: Mid-term exam<br>- 12th week: Quiz 2<br>- 14th week: Practical exam<br>- 14th week: Assignment evaluation<br>- 15th week : Final written and oral exam |
| iii. Assessment Pattern | In course tests & quizzes 20%<br>Midterm exam 10%<br>Clinical exam 20%<br>Oral exam 10%<br>End of semester written exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Lectures handouts<br>- Lectures uploaded on the e-learning system of the university (MOODLE) |
| ii. Reference Textbooks | - Murray, JJ: The Prevention of Oral Disease, 4th ed Oxford University Press, 2007 .<br>- Mathewsan, R. J: Fundamentals of pediatric dentistry, Quintessence, 1995. (OLD REF)???<br>- Rao, A. and Shetty, V.S: Principles and practice of pedodontics. 3rd ed. Jaypee Brothers Medical Pub., 2012.<br>- Cameron, A.C and Widmer, R.P: Handbook of pediatric dentistry, Mosby, 2012. |
| iii. Suggested Reading Reference | - Dean, J.A and Macdonald, R.E : McDonald and Avery Dentistry of for the child and Adolescent, 9th ed, Mosby, 2010.<br>- Wright, G.Z and Kupietzky, A.: Behavior management in Dentistry for children,2nd ,Wiely Blackwell, 2014.<br>- Casamassimo, P.S : Pediatric dentistry: Infancy through adolescence, 5th ed, Saunders, 2012. |
| iv. Useful websites,…..etc. | - http://www.aapd.org/<br>- http://www.aapd.org/policies/<br>- http://www.ada.org<br>- http://www.cebd.org |

Clinical Stage; Third Semester

Course Outline

**Course Code**: OMD 531n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Medicine, Periodontology, Oral & Radiographic Diagnosis

**Department:** Department of Oral Medicine and Periodontology, Oral Radiology and Oral Diagnosis, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Hakem El Sayed

**Level**: 5 **Credit Hours**: 4

**Prerequisites**: OMD 421

2- Objective of Course

Upon the completion of the course, the student should be able to fulfill the following main objectives :

- Understand the Oral manifestations of most commonly encountered systemic conditions.
- Dealing with patients with different systemic conditions in the dental clinic in order to avoid hazards to the patients themselves, other patients, the operator & the other personnel
- Describe The importance of periodontics as a dental discipline
- Describe The basic micro- &macro-anatomy as well as physiology of healthy periodontal tissues
- Understand The etiology & pathogenesis of periodontal disease
- Identify the mutual effects of systemic and periodontal disease.
- Diagnose and treat mild periodontal cases

3- Intended Learning Outcome

| | |
|---|---|
| i. Knowledge & Understanding | Upon completion of this undergraduate program, , the student must be able to :<br>- Define the Basic clinical criteria of healthy and diseased Gingival & periodontal tissues<br>- Recall knowledge about the initiating and the main local<br>- predisposing factors for gingival & periodontal disease<br>- Identify microbial interaction with the host in periodontal diseases<br>- Identify the Local &systemic predisposing factors for periodontal disease<br>- List The classification of different periodontal diseases<br>- understand the effect of periodontal lesions on systemic health<br>- Define The oro-facial manifestations of common systemic diseases and how to deal with patients with medical problems in dental office as : |

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|---|---|
| | ○ allergic conditions<br>○ Hematological disorders<br>○ Cardiovascular diseases |
| ii. Intellectual Skills | Upon completing this course ,students will be able to :<br>- Analyze the collected medical information of the patient to clarify its negative effects on the oral & periodontal problems<br>- express themselves and present their way of thinking , to acquire debate skills by :<br>○ presenting their case in front of the instructor during revising their diagnosis & way of management<br>○ Preparing &presenting their topic presentation<br>- Solve the patient periodontal problems ( limited to the course )<br>- Formulate appropriate treatment plan for dental management of the patients |
| iii. Practical & Professional Skills | Upon completing this course ,students will be able to :<br>- Apply current infection control guidelines<br>- Established a medical and dental medical history<br>- Operate systematic clinical periodontal examination to detect abnormal and pathological periodontal conditions :<br>○ Gain skills for record clinical criteria of the gingiva<br>○ Gain skills for assessment of tooth mobility & furcation<br>○ Gain skills for measure probing depth<br>- Diagnose periodontal disease<br>○ Gain skills to differentiate between gingivitis & periodontitis<br>○ Gain skills to detect the severity of the periodontal case<br>- Perform a non-surgical periodontal treatment for<br>- mild periodontal case and monitor treatment outcomes<br>○ Gain skills to identify & clinical use of scalers for supra gingival scaling<br>○ Gain skills to identify & clinical use of periodontal curettes for sub gingival scaling<br>○ Gain skills to perform teeth polishing |
| iv. General & Transferable Skills | The graduate upon completing the course will be able to:<br>- Communicate effectively with multicultural work environment :<br>○ With the patients through convincing them about following the oral hygiene instruction & the bidirectional relation between the medical conditions of medically compromised patients and their periodontal health<br>○ With the dental assistance<br>○ With the students colleague during sharing the same patient examination and treatment and during preparing their assignment<br>○ With the clinic supervisors to express themselves |

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|---|---|
| | ○ during presenting their periodontal case<br>- Use information technologies to obtain information and knowledge ( during preparing their topic presentation )<br>- Recognize professional responsibility towards the surrounding community ( Following infection control regulations ) |

4- Course Content

**Oral Medicine**

- Oral manifestation & Dental management of patients with systemic conditions:
  - Allergy
  - Heamatological disorders ( I & II )
  - Cardiovascular disease

**Periodontology**

- Histology of the periodontium ( Macro & Micro anatomy of the periodontium )
- Classification of periodontal disease
- Plaque induced gingivitis
- Chronic periodontitis
- Etiology of periodontal diseases
- Dental Calculus
- Pathogenesis of periodontal diseases
- Local predisposing factors in periodontal disease
- Occlusal trauma
- Influence of systemic diseases and disorders on periodontium.
- Influence of periodontal infections on systemic health

5- Learning & Teaching Strategies

- didactic sessions :
  - Lectures to explain different course topics “power point presentations, animations .
  - Active learning lectures: midterm and final course revision, students discussions, exercises on problem solving questions.
  - Revising students assignment “Tutorials “and presentations.
- Clinical sessions :
  - Introductory clinical lectures gives an over view of the clinical requirements ( electronic copy was distributed to the student including guide line for clinical diagnosis – colored periodontal chart – clinical features of healthy and diseased gingival and periodontal tissues )
  - Clinical demonstration for recording periodontal parameters ( probing depth , attachment loss, mobility , furcation involvement location of mucogingival junction ..ect )
  - Instrument identifications and uses
  - Practical demonstration on educational models.
  - Practical demonstration on patients ( diagnosis & treatment )

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| Student that is graded as “F” in any exam related to the didactic portions of the course (Quizzes & Midterm exam )or in the clinical session will have<br>- for didactic part : a confidential meeting with course director for deciding where the lack of understanding<br>of material has taken<br>- for the clinical part : Extra clinical session is given to them until a satisfactory level of competence is<br>achieved |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes, multiple choice exams for continuous in-course assessment (Quiz 1in the first term (4th week ) & Quiz 2 in the second term (4th week )<br>- Clinical requirement evaluations ( continuous in- course assessment)<br>- One hour Midterm exam by the end of the 6th week of the first term<br>- Topic presentation on any of the studied topics<br>- Clinical exam : evaluate student clinical skills, according to the clinical evaluation forms ( recording clinical diagnostic parameters & performing non surgical treatment ) .<br>- Oral exam to assess their understanding ,communication skills and problem -solving abilities<br>- Three –hour final written exam including problem solving questions |
| ii. Assessment Schedule | - Quiz 1in the first term (4th week )<br>- Quiz 2 in the second term (4th week )<br>- Clinical requirement evaluations ( all students must submit their clinical requirements 2 weeks before the final exams<br>- One hour Midterm exam by the end of the 6th week of the first term<br>- Final clinical exams ( 2 weeks before the final written exam<br>- Evaluation and discussion of student’s topic presentation ( at the end of second term )<br>- Three –hour final written exam week of the second semester ( according the examination schedule of the school ) 29/ 12/14<br>- Oral exam ( the same day after the final written exam ) |

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|---|---|
| iii. Assessment Pattern | In course tests & quizzes 20%<br>Midterm exam 10%<br>Clinical exam 20%<br>Oral exam 10%<br>End of semester written exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - *The course leader is distributing Periodontology handouts by the end of each lecture |
| ii. Reference Textbooks | - Newman et al. Carranza's Clinical Periodontology ,12th Edition. W.B. Saunder's Company, 2012-2015 ???.<br>- Greenberg MS, Glick M. Burkit's - Oral medicine (12th edition-2014 |
| iii. Suggested Reading Reference | - Ronald SB. Clinicians Guide to the Diagnosis and Treatment of Chronic Orofacial. American Academy of Oral Medicine, 2009<br>- Herbet.F Wolf , Edith .M, Thomas M. Color Atlas of Dental Medicine - Periodontology 3rd edition 2004 |
| iv. ..Useful websites,…..etc. | - www.ncbi.nih.gov/<br>- *www.perio.org/<br>- Google search<br>- Pub med<br>- Medline. |

Clinical Stage; Third Semester

Course Outline

**Course Code**: OSA 531n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Surgery and Anaesthesia

**Department:** Oral Surgery Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Magid Amin Mohamed Ahmed

**Level**: 5 **Credit Hours**: 4

**Prerequisites**: OSA 421n

| 2- Aim of the Course |
|---|
| - Upon completing this course, students will be able to diagnose and treat odontogenic infections, temporomandibular joint disorders, cystic lesions in the head and neck. Also understand different applications of laser in Oral Surgery, perform difficult teeth extractions, administer local anaesthesia in all areas of the oral cavity and manage potential complications relating to its use and assess and inform patients of the indications, contraindications, risks and benefits of conscious sedation and general anaesthesia. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | Upon completion of this course, the student must:<br>- Know and understand different types of odontogenic infections that could affect head and neck.<br>- Understand different temporomandibular disorders.<br>- Know and understand cystic lesions.<br>- Understand Laser applications in dentistry.<br>- Comprehend the types of general anaesthetic drugs and techniques / conscious sedation.<br>- Know and understand indications, contraindications, risks and benefits of conscious sedation and general anaesthesia. |
| ii. Intellectual Skills | The student must be able to:<br>- Analyze, interpret, and integrate collected diagnostic data to solve some clinical problems (infection, temporomandibular joint, cyst).<br>- Design appropriate treatment plans for different dental problems.<br>- Administer local anaesthesia in all areas of the oral cavity and manage potential complications relating to its use.<br>- Perform difficult teeth extractions. |

| | |
|---|---|
| iii. Practical & Professional Skills | The student must be able to:<br>- Detect abnormal and pathological conditions, as well as etiological and/or risk factors that may contribute to disease process.<br>- Apply current infection control guidelines.<br>- Control different levels of patient's anxiety and apprehension in different age groups.<br>- Apply different local anaesthetic techniques.<br>- Perform Extraction of teeth and removal of roots when necessary.<br>- Apply different suturing techniques.<br>- Be oriented to Operating Room equipment, discipline, and scrubbing technique. |
| iv. General & Transferable Skills | The student must be able to:<br>- Work In collaboration as a member of an interdisciplinary team.<br>- Communicate effectively in multicultural work environment using verbal and non -verbal means.<br>- Self-evaluate professional abilities, performance, and progress. |

4- Course Content

- Odontogenic infections of the head and neck.
- Temporomandibular disorders.
- Surgical management of cystic lesions of the head and neck.
- Laser applications in oral surgery.
- Types of general anaesthetic drugs and techniques / conscious sedation.
- Complications of general anaesthesia and their management.

5- Learning & Teaching Strategies

- Lectures to explain underlying principles.
- Demonstrations to help understand these principles.
- Clinic to apply those principles.
- Case studies (problem-based learning).
- Demonstration on different surgical procedures.
- Operating Room rotations.

6- Learning & Teaching Strategies for Students under Probation

- Provide additional hours, tutorials, more revision, and personal assistance

7- Student Assessment

| | |
|---|---|
| i. Assessment Schemes | Written quizzes for continuous in-course assessment.<br>- One hour Mid-term written exam.<br>- Clinical exam in local anaesthesia and extraction.<br>- Oral exam to assess their understanding, communication skills and problem-solving abilities.<br>- Three hours final exam to assess their ability to assess different dental problems |
| ii. Assessment Schedule | |
| iii. Assessment Pattern | In course quizzes & requirements 10%<br>Midterm exam 10%<br>Clinical exam 30%<br>Oral exam 10 %<br>End of semester written exam 10%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Handouts are available at the beginning of the semester that cover the whole curriculum of the course.<br>- Outline of the course presentations is available on the web site. |
| ii. Reference Textbooks | - Stanley F. Malamed. Handbook of Local Anesthesia. C.V. Mosby,1996 .<br>- Edward Ellis, James Hupp, Myron Tucker, Larry Peterson. Contemporary Oral and Maxillofacial Surgery. C.V. Mosby, 2002.<br>- Edward W. Odell. Clinical Problem Solving in Dentistry. Churchill Livingstone, 2000. |
| iii. Suggested Reading Reference | - Micheael Miloro. Peterson's principles of oral and maxillofacial surgery. BC Decker Inc, 2004.<br>- Fonseka, Marciani, Turvey. Oral and maxillofacial Surgery.Saunders Elsevier Inc, 2009.<br>- Jeffrey P. Okeson. Management of temporomandibular disorders and occlusion. Elsevier Mosby Inc, 2013<br>- Richard G.Topazian. Oral and maxillofacial infections. Elsevier Mosby Inc, 1994. |
| iv. Useful websites,…..etc. | - www.Pubmed.com<br>- www.Science direct.com<br>- www. Ebscohost.com |

Clinical Stage; Fourth Semester

Course Outline

**Course Code**: RES 541n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Clinical Conservative and Esthetic dentistry

**Department: Conservative and Esthetic dentistry**

**Course Coordinator**: Professor Dr.Faten Kamel

**Level**: 5 **Credit Hours**: 3

**Prerequisites**: RES 531a

| 2- Objective of Course |
|---|
| Upon completing this course, students will be able to:<br>- Manage cases of teeth discoloration with the most recent techniques<br>- Understand the concept of remineralization and conservation of tooth defects.<br>- Get introduced to nanotechnology in the operative field.<br>- Study the different light curing units. |

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| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Define nanotechnology and recognize its importance in the operative field.<br>- Distinguish the conservative approach and the new concept of treatment by remineralization.<br>- Distinguish the new concept of treatment by remineralization.<br>- Identify the different treatment modalities for management of discolored teeth.<br>- Describe the different light curing units. |
| ii. Intellectual Skills | - Explain the different treatment modalities for management of discoloured teeth and incipient carious lesions.<br>- Compare and contrast the different light curing units.<br>- Distinguish the nanotechnology in restorative dentistry. |
| iii. Practical & Professional Skills | - Operate in the dental clinic following the recent techniques of infection control and after isolating the operative field using the rubber dam.<br>- Select the most suitable and recent treatment modality for management of discoloured teeth and incipient carious lesions.<br>- Practice with the recent light curing units. |
| iv. General & Transferable Skills | - The students operate in the dental clinic under the supervision and evaluation of the department lecturer and teaching assistants who follow what he/ she are doing step by step. |

| | |
|---|---|
| | - Students should develop confidence in themselves by working alone to the patients and feeling the patient satisfaction.<br>- The clever student should create his own patients that he/ she will be responsible of all their dental problems.<br>- |

| 4- Course Content |
|---|
| - Remineralization<br>- Nanotechnology<br>- Restoration of discolored anterior teeth<br>- Bleaching methods and technique<br>- Conservative approach<br>- Light and curing system |

| 5- Learning & Teaching Strategies |
|---|
| Teaching / Learning Strategies:<br>- Lectures and tutorials<br>- Lab sessions with life demonstration and videos of all the practical steps.<br>- Brain storming, methods, group discussion, photographs, readings, role play, student lead seminars, case discussion and problem solving. |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Knowing their deficiencies and working on it by communicating with their families, giving them extra hours and quizzes, putting them under supervision and monitoring his/ her advance. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes and exams.<br>- Practical Lab exam to test their manual dexterity and skills in cavity preparation and filling.<br>- Oral discussion and exams to assess their communication skills and problem-solving abilities. |

| | |
|---|---|
| ii. Assessment Schedule | - Quizzes and oral discussion are held in the lab and lecture<br>- 1 hour Midterm and 3 hours final written exam, oral and practical exams |
| iii. Assessment Pattern | In Course Tests and Quizzes 20%<br>Midterm Exam 10%<br>Practical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | MSA University book and lecture power point presentation |
| ii. Reference Textbooks | - Fundamentals of Operative Dentistry, A Contemporary Approach, 4TH edition.<br>- Sturdevant's Art & Science of Operative Dentistry, 6th edition |
| iii. Suggested Reading Reference | - Essentials of operative dentistry, 2010<br>- Textbook of Operative Dentistry, 2nd edition, 2012<br>- Guidelines for Adhesive Dentistry: The Key to Success<br>- Adhesive technology for restorative dentistry by Jean Francois Roulet |
| iv. Useful websites,…..etc. | - Websites: Ebscohost, journal of operative dentistry, the Association of Dental Education in Europe (ADEE)<br>- Hands on extra courses: infection control, anterior and posterior composite, bleaching and laminate veneers. |

Clinical Stage; Fourth Semester

Course Outline

**Course Code**: PRS 541n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Fixed Prosthodontics

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Nadia Fahmy

**Level**: 5 **Credit Hours**: 3

**Prerequisites**: PRS 531n

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|---|---|
| 2- Aims: | The course is a continuation of the course given in the previous semester. The course further guides the student to the final stages of clinical application of skills acquired in his previous crown and bridge training. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge and Understanding: | Upon completing this course, students will be able to:<br>- Understand and evaluate the principles of aesthetics in relation to fixed prosthodontics.<br>- Critically evaluate the role of implants in fixed prosthodontics.<br>- Develop a critical understanding of causes and management of failures in cases of fixed prosthodontics. |
| ii. Intellectual Skills: | - Reflection upon the principles of biologic and periodontal considerations.<br>- Techniques of surgical and prosthodontic considerations in dental implants. |
| iii. Practical and Professional Skills: | - Ability to fabricate and place Maryland bridges.<br>- Ability to fabricate and place Implant-supported fixed prosthodontics.<br>- Ability to remove and repair fixed prosthodontics. |
| iv. General and Transferable Skills: | - Use information technologies to enrich his practical experience.<br>- Recognize the basic concepts of practice management. |
| 4- Content | Syllabus:<br>- Biologic considerations.<br>- Periodontal aspects in fixed prosthodontics.<br>- Implant-supported fixed prosthodontics.<br>- Failures in fixed prosthodontics.<br>- Removal and repair of fixed prosthodontics.<br>- Care and maintenance of fixed prosthodontics. |

| | |
|---|---|
| 5- Teaching / Learning Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Clinic to apply those principles. |
| 6- Learning & Teaching Strategies for Students under Probation | - Provide extra classes, more revision, and Personal Assistance |
| 7- Student Assessment | |
| i. Assessment Scheme: | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability to perform various crown and bridge procedures, tooth preparation and impression taking.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge.<br>- |
| ii. Assessment Schedule | - 12 home assignments.<br>- six 10-min. quizzes.<br>- two 1.5-hr. tests.<br>- 1-hr. Mid term exam.<br>- 3-hr. Final exam. |
| iii. Assessment Pattern: | In Course Tests and Quizzes 20%<br>Midterm Exam 10%<br>Practical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>*Total* *100%* |
| 8- List of References: | |
| i. Handouts & Lecture Notes | - The course leader will distribute handouts at the beginning of the semester that cover the whole curriculum of the course prepared by staff members.<br>- |
| ii. Reference Text: | - Edward W. Odell. Clinical Problem Solving in Dentistry. Churchill Livingstone, 2000.<br>- Herbert T. Shillingburg Jr, Sumiya Hobo, Lowell D. Whitsett, Richard Jacobi, Susan E. Brackett. Fundamentals of Fixed Prosthodontics. Quintessence Publishing, 1997. |
| iii. Supplementary Readings: | - Fixed Prosthodontics –Principles and Clinics .H.W.Anselm Wiskott.Quintessence Publishing 2011.<br>- The Science and Art of Porcelain Laminate Veneer.Galip Gurel.Quintessence Publishing 2003. |
| iv. Useful websites,…..etc. | - Useful Websites<br>- Ebscohost |

Clinical Stage; Fourth Semester

Course Outline

**Course Code**: PRS 542n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Removable Prosthodontics

**Department:** Prosthodontics Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Essam Adel Aziz

**Level**: 5 **Credit Hours**: 3

**Prerequisites**: PRS 532a

| 2- Objective of Course |
|---|
| - To get students familiar with Maxillofacial Prosthetic branch. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | - Identify the needs of maxillofacial patients to special treatment and devices.<br>- Management of Radiated patients and trismus<br>- Select proper devices for different patients. |
| ii. Intellectual Skills | - Distinguish the proper treatment plan for patients of head and neck deformities. |
| iii. Practical & Professional Skills | - Use different dental materials to perform different steps for device construction. |
| iv. General & Transferable Skills | |

| 4- Course Content |
|---|
| - Immediate denture<br>- Implants<br>- Speech<br>- Maxillary and mandibular defects<br>- Chemotherapy and Radiotherapy.<br>- Trismus<br>- Oral appliances<br>- Stents<br>- Splints |

| 5- Learning & Teaching Strategies |
|---|
| - Lectures<br>- Presentations<br>- Clinical Cases |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - Extra sessions. |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Quizzes<br>- Written exam<br>- Oral exam<br>- Practical exam |
| ii. Assessment Schedule | - Mid-term exam : mid-year<br>- Final exam : at the end of the semester<br>- Oral exam : around the final exam<br>- Quizzes: 5th and 8th week. |
| iii. Assessment Pattern | In Course Tests and Quizzes 20%<br>Midterm Exam 10%<br>Practical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | Lecture Notes |
| ii. Reference Textbooks | - Department's Book |
| iii. Suggested Reading Reference | - Marunick, Maxillofacial Rehabilitation: Prosthodontic and Surgical Management of Cancer, 2011 |
| iv. Useful websites,…..etc. | |

Clinical Stage; Third Semester

Course Outline

**Course Code**: RES 542n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Endodontics

**Department:** Restorative Dentistry Department, Faculty of Dentistry, MSA

**Course Coordinator**: Dr Elham El Shaboury

**Level**: 5 **Credit Hours**: 2

**Prerequisites**: RES 532n

| 2- Objective of Course |
|---|
| Develop qualified, skillful clinicians who practice endodontics with state-of-the-art armamentaria and philosophies. New endodontists will treat and re-treat all types of teeth which need root canal therapy, perform vital pulp therapy, routine & advanced endodontic surgical procedures, manage traumatic injuries and emergency needs of their patients, perform different bleaching techniques and treat medically compromised patients |

| 3- Intended Learning Outcomes | | |
|---|---|---|
| i. | Knowledge& Understanding | - At end of this course, student should be able to<br>- Express different methods of vital pulp therapy.<br>- Enumerate classifications of traumatic injuries and illustrate methods of treatment.<br>- Enumerate the indications, contraindications and discuss preparations, and techniques of endodontic surgery.<br>- Declare vertical fractures of teeth. |
| ii. | Intellectual Skills | - Manage time effectively and have good personal, teamwork, IT and operational skills in order to contribute to the efficient delivery of healthcare to an optimum quality standard. |
| iii. | Practical & Professional Skills | - Perform vital pulp therapy.<br>- Provide endodontic treatment for cases with mild difficulty<br>- Practice surgical retreatment of failed endodontic cases.<br>- Recognize and manage, or prevent, endodontic pain and associated anxiety using physical, chemical and psychological modalities. |
| iv. | General & Transferable Skills | - Identify the regulations controlling doctor-patient relationship.<br>- Practice the team work skill.<br>- Use information technology to improve the education through research work activities.<br>- Apply different preventive programs to fulfill various community needs. |

| 4- Course Content |
|---|
| - Application of therapeutics.<br>- Surgical Endodontics.<br>- Alternatives to routine endodontic treatment.<br>- Traumatic injuries.<br>- Regenerative Endodontics<br>- Restoration of Endodontically treated teeth |

| 5- Teaching & Learning Strategies |
|---|
| - Lectures(Teaching aids: Data show, whiteboard, slide projector)<br>- Clinical demonstration. |

| 6- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical requirements.<br>- Clinical exam to test their manual dexterity and skills in root canal preparation and filling.<br>- Oral exam to assess their communication skills and problem-solving abilities.<br>- Three hours final exam to assess their core theoretical knowledge. |
| ii. Assessment Schedule | - Weekly quizzes.<br>- Mid-term exam.<br>- Final written oral and clinical exams. |
| iii. Assessment Pattern | In Course Tests and Quizzes 20%<br>Midterm Exam 10%<br>Practical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 30%<br>Total 100% |

| 7- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Prof. Dr. / Elham ElShaboury Handouts<br>- Book issued by the Department of Endodontics |

| | |
|---|---|
| ii. Reference Textbooks | - Pathways of the Pulp, 8th ed.Stephen Cohen; Richard C. Burns 2002<br>- Endodontics: Principles and Practice 6th ed. Mahmoud Torabinejad, Richard E. Walton 2008 |
| iii. Suggested Reading References | - Endodontics, 6th ed.John I. Ingle; Leif K. Backland 2008<br>- Cohen's Pathways of the Pulp Expert Consult, 10th ed. Kenneth M. Hargreaves; Stephen Cohen; Louis H. Berman |
| iv. Useful websites,…..etc. | - Online Dental Learning onlinedentallearning.com<br>- Journal of Endodontics<br>- International Journal of Endodontics |

Clinical Stage; Fourth Semester

Course Outline

**Course Code**: POD 542n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Paedodontics-2

**Department:** Department of Paedodontics and Orthodontics

**Course Coordinator**: Professor Nevine G. Wali

**Level**: 5 **Credit Hours**: 2

**Prerequisites**: POD 532n

| 2- Objective of Course |
|---|
| This course prepares the students to<br>- provide comprehensive dental care to his pediatric patients in order to produce a more ideal oral structure from a metabolic, functional and aesthetic view point in these growing children.<br>- It also provides the dental student with experience in proper management, behavior modification and the ability to establish a positive attitude towards dental treatment in his young patients |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | By the end of this course, students should be able to: |

| | |
|---|---|
| | - review the objectives of pediatric dentistry<br>- list the morphologic differences between primary and permanent teeth<br>- list the morphologic differences between primary and permanent teeth<br>- Identify the enumeration system for primary dentition<br>- Describe the normal development of primary teeth<br>- Recognize chronology of primary and permanent teeth<br>- Describe the normal sequence of eruption of primary and permanent teeth<br>- Discuss the cognitive, social and emotional development of children<br>- Identify the different behavior management techniques , used to modify the behavior of young children, up till the adolescent age group.<br>- Discuss local anesthesia of children<br>- Review the different aspects in restoration of primary teeth, as well as different restorative materials used in pediatric dentistry<br>- Review the different pulp treatment modalities for primary teeth.<br>- Summerize the procedure of full coverage of primary molars using stainless steel crown<br>- Classify traumatic injuries of primary and permanent teeth<br>- explain the required emergency measures for various traumatic injuries.<br>- Select the proper management of different traumatic injuries<br>- Review the effects of premature loss of primary teeth<br>- list the different types of space maintainers.<br>- Explain the clinical picture of the common gingival diseases of children<br>- Describe the proper management of the common gingival diseases affecting children<br>- Relate the clinical and radiographic picture of the different periodontal diseases affecting children<br>- Define special health care need patient<br>- Estimate the risk factors in dental treatment of special and medically compromised child patient<br>- Outline the general considerations in management of special and medically compromised child patients<br>- Point out the indicated prophylactic measures undertaken for a medically compromised child dental patient<br>- Describe management of special and medically compromised child patients in dental clinic. |
| ii. Intellectual Skills | By the end of this course, students should be able to:<br>- Estimate thechronological age of a child based on panorex view<br>- Discreminate the morphological differences between primary and permanent teeth<br>- Extrapolate the clinical significance of morphological |

| | |
|---|---|
| | characteristics of primary teeth.<br>- determine the management technique that is most appropriate for each age group as well as each behavior type<br>- categorize the type of the child's behavior<br>- relate the appropriate method of behavior modification to be used with each child.<br>- estimate the appropriate amount of anesthetic solution injected for a child dental patient.<br>- appraise the indications and contraindications of pulp therapy in primary teeth<br>- conclude the restorative material best suited in different situations<br>- validate the need for full coverage of primary teeth.<br>- 3-2-11. Discuss proper management of different traumatic injuries of teeth<br>- Predict prognosis of different traumatic injuries of teeth<br>- Construct a contingent treatment plan for various traumatic injuries if primary and permanent teeth.<br>- decide the appropriate space management approach to different situations<br>- Interpret clinical findings of gingival conditions in children<br>- Propose the proper management of gingival diseases in children<br>- Classify periodontal diseases in children<br>- Conclude the treatment measures indicated for specific periodontal diseases in children<br>- Categorize special care children<br>- Distinguish the main concerns when treating a special health care child<br>- Justify certain measures taken during dental treatment of a medically compromised child dental patient |

| | |
|---|---|
| iii. Practical & Professional Skills | By the end of this course, students should be able to:<br>- Examine a child dental patient and diagnose dental problems....<br>- Apply the basic steps of examination of pediatric dental patient<br>- Formulate a contingent treatment plan for a pediatric dental patient<br>- use Tell-show-do technique to modify the behavior of a young dental patient.<br>- deliver simple dental treatment procedures for a cooperative pediatric dental patient.<br>- perform vital pulpotomy procedures for primary teeth, using complete isolation<br>- adapt a stainless steel crown for full coverage of primary molars<br>- Construct a successful treatment decision for different traumatic injuries<br>- Employ the proper technique for restoration of primary teeth<br>- Diagnose different problems in mixed dentition<br>- Perform successful vial pulpotomy for primary teeth<br>- Prepare stainless steel crown for full coverage of primary molar<br>- Operate a simplae restoration for primary molars |
| iv. General & Transferable Skills | By the end of this course, students should be able to:<br>- work in groups<br>- Demonstrate self-confidence and full control in the dental session<br>- Manage time, set priorities and work to prescribed time limit<br>- Demonstrate respect to all patients irrespective of their socioeconomic level and cultural belief<br>- Acting to gain trust of both child and parent by showing honesty and compassion<br>- use the internet sources to reach evidence based data. |

## 4- Course Content

- Aims and benefits of paedodontics.
- Chronology and morphology of deciduous teeth.
- Child psychology and dental health.
- Management of potentially resistant child.
- Local anesthesia for pediatric patients.
- Restoration of primary teeth.
- Management of traumatic injuries.
- Management of space maintenance.
- Gingival and periodontal diseases in children.
- Dental management of handicapped children.

## 5- Learning & Teaching Strategies

- Lectures
    - Interactive learning
    - Visual aids
- clinical demonstrations
    - group demonstrations
    - one-to-one supervised clinical work

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| - one-to-one demonstration<br>- remedial teaching<br>- compensatory teaching |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes and exams<br>- practical exam .<br>- Oral exam<br>- continuous clinical assessment |
| ii. Assessment Schedule | - 4th week: quiz 1<br>- 7th week: mid term exam<br>- 12th week: quiz 2<br>- 14th week: practical exam<br>- 15th week : final written and oral exam<br>- clinical requirement assessment: throughout the course weeks |
| iii. Assessment Pattern | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Lectures handouts<br>- lectures uploaded on the e learning system of the university |

| | | |
|---|---|---|
| ii. | Reference Textbooks | - Ralph E. McDonald, David R. Avery, Jeffrey A. Dean. A Manual of Pediatric Dentistry. Churchill Livingstone, 2006.<br>- Mathewsan R. J: Fundamentals of Pediatric Dentistry, Quintessence. 1995.<br>- Rao A.& shetty V.S: Principles and Practice of Paedodontics. 3rd edition. Jaypee brothers medical pub. 2012.<br>- Cameron A.C &Widmer R.P; handbook of pediatric dentistry ,mosby,2012. |
| iii. | Suggested Reading Reference | - Dean J.A & Macdonald R.E : McDonald and Avery Dentistry of for the child and Adolescent ,9th edition, Mosby, 2010.<br>- .Wright G.Z & Kupietzky A.: Behavior management in Dentistry for children,2nd ,Wiely Black well .2014.<br>- Casamassimo P.S : Pediatric Dentistry :Infancy through Adolescence ,5th Saunders, 2012. |
| iv. | Useful websites,…..etc. | - http://www.aapd.org/<br>- http://www.aapd.org/policies/<br>- http://www.ada.org<br>- http://www.cebd.org |

Clinical Stage; Fourth Semester

Course Outline

**Course Code**: OMD 541n

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Medicine, Periodontology, Oral & Radiographic Diagnosis

**Department:** Department of Oral Medicine and Periodontology, Oral Radiology and Oral Diagnosis, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Soad Mansour

**Level**: 5 **Credit Hours**: 4

**Prerequisites**: OMD 531n

| 2- Objective of Course |
|---|
| - To foster knowledge that governs the principle of periodontal surgeries.<br>- To provide opportunities for review and analysis of a wide range of patients periodontal conditions.<br>- To expand students analytical skills relative to clinical signs and symptoms and treatment of periodontal diseases .<br>- To apply and predict the knowledge obtained for the appropriate management of periodontal health |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | By the end of the course ,students should be able to recognize:<br>- 1- guidelines of periodontal surgeries<br>- 2-surgical management of gingival enlargements<br>- 3- flaps for pocket therapy<br>- 4- classification of periodontal of periodontal flaps<br>- 5- regenerative therapy<br>- 6-Mucogingival & esthetic surgeries |
| ii. Intellectual Skills | - Distinguish between the range of normal periodontal<br>- findings and abnormal deviations present... . |
| iii. Practical & Professional Skills | - .1-Use different instruments and techniques of periodontal<br>- examination and understand their limitations and<br>- hazards.<br>- 2-Analyze the different data obtained by the patient related<br>- to his/her periodontal condition<br>- 3-Relate information obtained from the patient to his<br>- periodontal condition.<br>- 4-Practice a comprehensive periodontal examination<br>- 5-Select the medical and dental history items relevant to<br>- chief complaint/s reported by the patient |

| | |
|---|---|
| iv. General & Transferable Skills | - 1-Demonstrate respect to all patients irrespective of their socioeconomic level and cultural belief.<br>- 2-Converse with patients in an attentive manner that2<br>- conveys concern, compassion and encouragement to<br>- patients or their families .<br>- .Point out to the patient the nature of his/her condition,3-<br>- different treatment options and possible complications<br>- in such away that is easily understood ,answers patient<br>- questions and encourages discussion .<br>- Appraise the socioeconomic, cultural, 4-<br>- geographic and occupational factors that may influence<br>- etiology of oral pathological conditions. |

4- Course Content

Oral Medicine
- Endocrinal Disorders
- Autoimmune diseases
- Liver
- Kidney
- Orofacial pain & TMJ problems
- Halitosis
- Occupational diseases of dentists

Periodontology
- Prognosis of periodontal problems
- Aggressive periodontitis
- Necrotizing periodontal diseases
- Abscesses of the periodontium
- Chemical plaque control
- Guidelines & introduction to periodontal surgeries
- Gingivectomy
- Types of periodontal flaps for pocket elimination
- Regenerative materials
- Mucogingival surgeries

5- Learning & Teaching Strategies

- Lectures to explain underlying principles . These lectures include power point presentations, animations, white board classic explanations , discussions, seminars , critical reviewing, interaction, students' search and presentations .
- Clinic to apply those principles

6- Learning & Teaching Strategies for Students under Probation

| |
|---|
| - Provide additional hours, tutorials, more revision, and personal assistance |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests , multiple choice exams for continuous in-course assessment .<br>- Research presentation on any of the studied topics<br>- Clinical exam to test students' ability to diagnose different oral conditions .<br>- Oral exam to assess their understanding , communication skills and problem -solving abilities<br>- Three –hour final written exam to assess their core theoretical knowledge . |
| ii. Assessment Schedule | - 6th week quiz<br>- Mid term exam<br>- 10th week Project presentation<br>- 11th week practical exams<br>- Final written exam |
| iii. Assessment Pattern | In Course Tests and Quizzes 10%<br>Midterm Exam 20%<br>Practical Exam 20%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - Department books<br>- Hands out for periodontology |
| ii. Reference Textbooks | - Greenberg MS, Glick M. Burkit's Oral Medicine 10thEd. BC Decker Inc, 2003.<br>- Cawson RA & Odell EW. Cawson's essentials of oral pathology & oral medicine 7th Ed. Butterworth-Heinemann, 2002.<br>- Scully C. Oral and Maxillofacial Medicine: The Basis of Diagnosis and Treatment. Churchill Livingstone, 2008.<br>- Newman et al. Carranza’s Clinical Periodontology ,10th Edition. W.B. Saunder's Company, 2006.<br>- Carranza's Clinical Periodontology: By Michael G. Newman, DDS, Henry Takei, DDS, Perry R. Klokkevold, DDS, MS and Fermin A. Carranza, Dr. Odont 9th edition - 2006 |

| | |
|---|---|
| iii. Suggested Reading Reference | - Clinical Periodontology and Implant Dentistry, 5th edition. Jan Lindhe, Niklaus P. Lang, and Torkild Karring 5th edition 2010.<br>- Periodontics: medicine, surgery, and implants Louis F. Rose. Elsevier Mosby, 2004<br>- Atlas of cosmetic and reconstructive periodontal surgeryEdward S. Cohen PMPH-USA, 2007<br>- Bricker S, Langlais R, Miller C. Oral Diagnosis, Oral Medicine and Treatment Planning. Oxford, 2002.<br>- Laskaris G. Color Atlas of Oral Diseases 3rd Ed. Naklada Slap, Jastrebarsko, 2005.<br>- Ronald SB. Clinicians Guide to the Diagnosis and Treatment of Chronic Orofacial. American Academy of Oral Medicin, 2009. |
| iv. Useful websites,…..etc. | - The American Academy of Periodontology'shttp://www.perio.org<br>- http://www. Journal of Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology.com.<br>- http://www. Journal of Periodontology.com.<br>- http://www. Jpis.org. Journal of Periodontal & Implant science. |

Clinical Stage; Fourth Semester

Course Outline

**Course Code**: OSA 541a

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Oral Surgery and Anaesthesia

**Department:** Oral Surgery Department, Faculty of Dentistry, MSA

**Course Coordinator**: Professor Magid Amin Mohamed Ahmed

**Level**: 5 **Credit Hours**: 4

**Prerequisites**: OSA 531

| 2- Aim of the Course |
|---|
| - By the end of this course, the student should be able to diagnose and manage the treatment of oral tumors as well as salivary glands diseases. Also manage trauma of the maxillofacial region, know the latest updates concerning :Local anesthesia, surgical exodontia and treatment of medically compromised patients, and understand and assess dental implant cases and the different general anesthetic techniques and anesthetic drugs used in oral and maxillofacial surgeries. |

| 3- Intended Learning Outcomes | |
|---|---|
| i. Knowledge & Understanding | The student must be able to:<br>- Recognize oral tumors and salivary gland diseases and explain their managements<br>- Review local anesthesia updates as well as recent innovations in surgical exodontias and recent modalities in managements of medically compromised patients<br>- Understand the basic principles,surgical and adjunctive techniques, complications and applications of dental implants<br>- Understand the different anesthetic drugs and techniques used in the general anesthesia during oral and maxillofacial surgeries |

| | |
|---|---|
| ii. Intellectual Skills | The student must be able to:<br>- Analyze, interpret and integrate collected diagnostic data to solve clinical problems.<br>- Design appropriate treatment plans for different dental problems.<br>- Administer local anesthesia in all areas of the oral cavity and manage its potential complications related to their uses.<br>- manage medically compromised patients performing oral and maxillofacial surgeries<br>- distinguish oral and maxillofacial tumors as well as salivary glands diseases and manage them.<br>- evaluate and manage trauma to the oral and maxillofacial region |
| iii. Practical & Professional Skills | The student must be able to:<br>- manage oral and maxillofacial tumors<br>- manage salivary gland diseases.<br>- administer local anaesthesia in all areas of the oral cavity and manage potential complications relating to its use.<br>- assess medically compromised patients.<br>- perform difficult extractions of teeth.<br>- administer first aid treatment to patients suffering from trauma and manage trauma to oral and maxillofacial region with fabrication of simple maxilla-mandibular fixation techniques.<br>- assess and evaluate dental implantology cases<br>- understand the indications, contraindications, limitations, risks and benefits of conscious sedation and general anaesthesia with their different anaesthetic drugs and techniques |
| iv. General & Transferable Skills | The student must be able to:<br>- Work in collaboration as a member of an interdisciplinary team<br>- communicate effectively in multicultural work environment using verbal and non-verbal means.<br>- self evaluate professional abilities, performance and progress. |

| 4- Course Content |
|---|
| - Management of oral and maxillofacial tumors<br>- management of salivary gland diseases<br>- management of oral and maxillofacial trauma<br>- latest updates of local anesthesia<br>- latest updates of surgical exodontias<br>- latest updates in the management of medically compromised patients<br>- principles of dental implantology<br>- Techniques of general anesthesia in dental surgeries and general anesthetic drugs |

| 5- Learning & Teaching Strategies |
|---|
| - power point presentations in lectures and labs<br>- case studies at the labs and lectures ( problem-based studies)<br>- clinical seminars<br>- practical work at the clinics<br>- demonstrations at the clinics |

| 6- Learning & Teaching Strategies for Students under Probation |
|---|
| 1-Special classes for revising weak points<br>2- more attention<br>3- restricted attendance<br>4- more revisions |

| 7- Student Assessment | |
|---|---|
| i. Assessment Schemes | - Written quizzes/tests, multiple choice exams for continuous in-course assessment.<br>- Clinical exam to test their ability in diagnosing oral surgical conditions and in exodontia.<br>- Requirements of maxilla-mandibular fixation techniques .<br>- Oral exam to assess their understanding, communication skills and problem-solving abilities. |
| iii. Assessment Schedule | |
| iv. Assessment Pattern | In Course Tests and Quizzes 10%<br>Midterm Exam 10%<br>Practical Exam 30%<br>Oral Exam 10%<br>End of Semester Written Exam 40%<br>Total 100% |

| 8- List of References | |
|---|---|
| i. Handouts & Lecture Notes | - E-learning<br>- oral surgery and anesthesia for dental students |

| | |
|---|---|
| ii. Reference Textbooks | - Stanley F. Malamed. Handbook of Local Anesthesia. C.V. Mosby,1996 .<br>- Edward Ellis, James Hupp, Myron Tucker, Larry Peterson. Contemporary Oral and Maxillofacial Surgery. C.V. Mosby, 2002.<br>- Edward W. Odell. Clinical Problem Solving in Dentistry. Churchill Livingstone, 2000. |
| iii. Suggested Reading Reference | - Fonseca<br>- Petterson<br>- I.V sedation of Stanley mallamed |
| iv. Useful websites,…..etc. | |

Elective Course
Course Outline

**Course Code**: BAD 200

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Business Administration

**Department:** Department of Business Administration, Faculty of Business Administration, MSA

**Course Coordinator**: Dr Ehab Heikal

**Level**: 4-5 **Credit Hours**: 2

**Prerequisites**: None

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| | |
|---|---|
| 2- Objective of Course: | - This module is designed to develop a broad perspective on various business issues and trends as entrepreneurship and government factors that either encourage or hinder it. This course gives students a solid background on economic trends, indicators and various economic systems. This course also familiarizes the students with the management process, functions and leadership styles. It also introduces students to international business issues, marketing and financial management. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Explore detailed information and comprehension of the essential facts, concepts, and principles in different business disciplines.<br>- Acquire knowledge and understanding of the foundations of different business issues.<br>- Develop a broad perspective on business issues and trends; entrepreneurship, forms of business ownership, franchises, business plans in global markets and empowerment.<br>- Become familiar with the management process, functions as well as manager's responsibilities and their roles in business organization. |
| ii. Intellectual Skills: | Upon completing this course, students will be able to:<br>- Apply the basic aspects of international business, marketing and financial management.<br>- Appreciate the ethical responsibilities of business owners/ managers.<br>- Acquire presentation skills through class presentations.<br>- Acquire reading and research skills through the article reviews. |

| | |
|---|---|
| | |
| iii. Practical & Professional Skills: | |
| iv. General & Transferable Skills: | |
| 4- Course Content: | - Meeting The Challenge of Today's Dynamic Business Environment<br>- Economics: The creation and Distribution of Wealth<br>- Competing in Global Markets<br>- Demonstrating Ethical Behavior and Social Responsibility<br>- Forms of Business Ownership<br>- Management, Leadership, and Employee Empowerment<br>- Motivating Employees and Building Self-Managed Teams<br>- Marketing: Customer and Stakeholder Relationship Marketing<br>- Distributing products efficiently and competitively<br>- Financial Management |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Article Reviews<br>- Class Presentations |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment | |
| i. Assessment Schemes: | - Six written quizzes comprising multiple choice, and essay questions.<br>- Four assignments comprising case studies, with 4 - 6 questions on each.<br>- Two article reviews are required; the first one must be submitted two weeks before midsemester, the second, two weeks before final examination. A copy of the original article should be attached to every review. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course tests and quizzes 20%<br>Mid-Semester exam 20%<br>End of Semester exam 60%<br>**Total** 100% |
| 8- List of references | |

| | |
|---|---|
| i. Handouts & Lecture Notes | - The course leader will distribute handouts at the beginning of the semester that cover the whole curriculum of the course. |
| ii. Reference Textbooks | - William G Nickels, James McHugh, Susan McHugh 2004, Understanding Business. 7th edition McGraw-Hill/Irwin |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | |

Elective Course
Course Outline

**Course Code**: EET 200
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: Elementary Electronics
**Department:** Electronics and Communication, Faculty of Engineering, MSA
**Course Coordinator**: Dr. Tarif El-Shafie
**Level**: 4-5 **Credit Hours**: 2
**Prerequisites**: None

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| | |
|---|---|
| 2- Objective of Course: | This course is designed to provide students with an understanding of the electric energy and power, signals and pulse, analog and digital, modulation and demodulation, encoding and decoding, logic gates, p- and n- type semiconductors, The p-n junction diode, diode circuit models, power supply circuits, The transistor as a switch, ideal logic gates. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Acquire knowledge of the fundamental concepts and theory of electronic engineering to non-professionals.<br>- Analyse the semiconductors, diodes and their applications, as well as the transistors for digital applications to understand the digital systems. |
| ii. Intellectual Skills: | - Synthesise the various energy and power, signals and pulse, analog and digital, modulation and demodulation and encoding and decoding.<br>- Design simple electronic systems. |
| iii. Practical & Professional Skills: | - Electronic Experiments are performed in MSA Electrical and Electronic Laboratories at Faculty of Engineering, MSA University. |
| iv. General & Transferable Skills: | |

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| 4- Course Content: | - Energy and power<br>- Signals and pulse, analog and digital<br>- Modulation and demodulation, encoding and decoding<br>- p- and n- type semiconductors<br>- The p-n junction diode<br>- Diode circuit models<br>- Power supply circuits<br>- The transistor as a switch |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Laboratory. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment | |
| i. Assessment Schemes: | - Weekly written Assignment (8 Home Assignments)<br>- Short written Quizzes (4 10-min. Quizzes)<br>- Laboratory Test<br>- Unseen written Semester Exam (1.5-hr. Exam)<br>- Unseen written Final-Exam (3-hr. Exam) |
| ii. Assessment Schedule: | - Lectures: 1 hr<br>- Tutorials 1 hr<br>- Laboratories 1 hr<br>- Total class contact hours per semester: 15<br>- Total other study hours per semester: 30<br>- Total study hours per semester: 45 |
| iii. Assessment Pattern: | In Course tests and quizzes 20%<br>Mid-Semester exam 20%<br>End of Semester exam 60%<br>**Total** 100% |
| 8- List of references | |
| i. Handouts & Lecture Notes | - The course leader will distribute handouts at the beginning of the semester that cover the whole curriculum of the course. |

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| ii. Reference Textbooks | - Irwin, J. D. and Kerns, D. 1995, Introduction to Electrical Engineering Prentice Hall |
| iii. Suggested Reading Reference | - Nilsson, J. W. 1995 Electric Circuits , Addison Wesley Co. ,Adel S. Sedra, Kenneth Carless Smith 2003 Microelectronic Circuits Oxford University Press |
| iv. Useful websites,…..etc. | |

Elective Course
Course Outline

**Course Code**: NUT 200
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: Nutrition
**Department:** Faculty of Engineering, MSA
**Course Coordinator**: Professor Mohamed Farouk
**Level**: 4-5 **Credit Hours**: 2
**Prerequisites**: None

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| 2- Objective of Course: | - To enhance the understanding of the basic functions and requirements and food sources of nutrients (carbohydrates, proteins, lipids, vitamins, minerals and water) and to apply basic nutrition concepts to food choices. General concepts of weight management are outlined. Vegetarian diets are discussed with their health benefits and hazards. Also, the course aims at identification of factors which affect dental health highlighting the relationship between dental disease and nutrition. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course the student will be able to:<br>- Describe the concepts of basic nutrition.<br>- Give an account of the food nutrients (Macro and Micronutrients).<br>- Describe the energy balance.<br>- List diseases caused by nutritional deficiencies.<br>- Identify the toxicity manifestations caused by overdosage of certain nutrients.<br>- Describe weight management strategies.<br>- List the different types of vegetarian diets. |
| ii. Intellectual Skills: | - Using MyPyramid as a food guide protocol, students will be able to design a food regimen for individuals of either sex or various age groups. Students will be able to recognize vegetarian diets with the hazards related to them and design vegetarian regimens which overcome those hazards. |
| iii. Practical & Professional Skills: | By the end of the course, students will be able to:<br>- Undertake an assignment concerning a nutritional topic to assess ability of students in the critical analysis of data and data handling |

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| iv. General & Transferable Skills: | - By the end of the program the students will be able to work effectively in a group and use sources of nutritional information (Food labels) to be oriented with the nutritional value of various nutrients and ready to take foods. |
| 4- Course Content: | - Introduction to Nutrition<br>- Nutrients in the food we eat:<br>- Macronutrients (CHO)<br>- Nutrients in the food we eat:<br>- Macronutrients (Ptns)<br>- Nutrients in the food we eat:<br>- Macronutrients ( Fats)<br>- Micronutrients :<br>- Vitamins<br>- Micronutrients : Vitamins<br>- Minerals and Water<br>- What should we eat :<br>- Dietary Guidelines<br>- MyPyramid<br>- Food Groups<br>- Food Labels<br>- Weight Management<br>- Vegetarian Diets |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials with small group discussion to help in understanding these principles and applying those tutorials practically in the form of assignments, to provide experience in the critical analysis of data and data handling, and also to develop team work skills. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment : | |
| i. Assessment Schemes: | - Written quizzes and tests in the form of short answer questions, multiple choice questions MCQ and clinical case reports for continuous in-course assessment of knowledge and understanding.<br>- Midterm exam.<br>- Students undertake a practical nutritional topic as an assignment to assess ability of students in the critical analysis of data and data handling.<br>- Two-hour final written exam to assess students' core of theoretical knowledge. |
| ii. Assessment Schedule: | - Lectures & Tutorials 2 hrs.<br>- Total class contact hours per semester 24 hrs. |

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| iii. Assessment Pattern: | - In Course work & quizzes 20 % , 20 min. each<br>- Midterm exam 20 % , 1 hrs.<br>- End of term written exam 60 % , 2 hrs. |
| 8- List of references : | |
| i. Handouts & Lecture Notes | - The course coordinator will distribute handouts at the beginning of the semester that covers the whole curriculum of the course. |
| ii. Reference Textbooks | - Duncan K 2012 Krause's food & nutrition therapy, Saunders 12th ed,<br>Rebecca Sroda 2010 Nutrition for a healthy mouth Lippincott`s Williams &Wilkins. |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | |

Elective Course
Course Outline

**Course Code**: DIN 200
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: Dental Informatics
**Department:** Faculty of Computer Science, MSA
**Course Coordinator**: Dr Azza El-Saeid
**Level**: 4-5 **Credit Hours**: 2
**Prerequisites**: CSD101, CSD102

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| 2- Objective of Course: | - This course discusses several topics related to the use of new technologies in the information science and communication as applied to the learning, research and clinical practice of dentistry. This course covers topics in managing the patients' electronic record, dental imaging and the use of communication and internet technologies in dental practice. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Differentiate between different kinds of dental imaging techniques.<br>- Demonstrate basic computer graphics concepts.<br>- Demonstrate fundamental principles of data, information, knowledge and data mining.<br>- Illustrate Web Development Basics.<br>- |
| ii. Intellectual Skills: | - Use the internet to send and receive electronic mail.<br>- Perform on-line search in the dental and medical literature through World Wide Web, Med-line and other search tools.<br>- Create a web page for the dental office<br>- Use a graphics package such as Photoshop or Microsoft Photo Editor in dentistry.<br>- Choose the type of hardware and software necessary to open and maintain a dental office.<br>- Experienced in a dental application software package which includes computer-based oral health records, dental office management software and clinical management software.<br>- Use the internet to send and receive electronic mail.<br>- Perform on-line search in the dental and medical literature through World Wide Web, Med-line and other search tools.<br>- Create a web page for the dental office<br>- Use a graphics package such as Photoshop or Microsoft Photo Editor in dentistry.<br>- Choose the type of hardware and software necessary to open and maintain a dental office.<br>- Experienced in a dental application software package which |

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| | includes computer-based oral health records, dental office management software and clinical management software. |
| iii. Practical & Professional Skills: | |
| iv. General & Transferable Skills: | |
| 4- Course Content: | - introduction to Dental Informatics<br>- Implementation of New Technologies in Dental Practice.<br>- Managing the patients electronic record<br>- Practice management.<br>- Maintaining patient records, tracking payments, marketing, etc.<br>- Recording and management of clinical data.<br>- Patient history, medical alerts, treatment planning, monitor treatment progress.<br>- Dental Imaging<br>- Intra-oral and Extra-oral camera<br>- X-rays<br>- Digital Imaging<br>- The use of communication technologies and Internet teaching issues as e-mail, search, teledentistry/ teleconference and web development in the study, research and clinical dentistry practice. |
| 5- Learning & Teaching Strategies: | - Weekly lectures to introduce the basic concepts of the course subjects.<br>- Weekly computer labs to conduct a series of sessions on the use of the internet, web development, image processing and a dental application software package. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment : | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams.<br>- Comp Lab exam.<br>- Oral exam.<br>- Three hours final exam. |
| ii. Assessment Schedule: | - Lectures: - 1 hr<br>- Tutorials - 2 hrs<br>- Total class contact hours per semester: - 15 |

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| | - Total other study hours per semester: - 30<br>- Total study hours per semester: - 45 |
| iii. Assessment Pattern: | In Course tests and quizzes 20%<br>Mid-Semester exam 20%<br>End of Semester exam 60%<br>**Total** 100% |
| 8- List of references : | |
| i. Handouts & Lecture Notes | - The course coordinator will distribute handouts at the beginning of the semester that covers the whole curriculum of the course. |
| ii. Reference Textbooks | - Jennifer Niederst 2001 Web Design in a Nutshell, 2nd ed O'Reilly<br>Schleyer T, Spaliek H. 2001 Dental Informatics: A Cornerstone of Dental PracticeJ. Am. Dent. Ass.; 132: 605-613 ,Louis M. Abbey, John Zimmerman 1992 Dental Informatics: Integrating Technology Into the Dental Environment Springer-Verlag |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | - http://webdesign.com<br>- http://www.dentalinformatics.com<br>- http://www.wessex.org.EU/dental/itcourse/index.htm?about.htm<br>- http://www.dentalinformatics.com/ |

Elective Course
Course Outline

**Course Code**: PSY 200
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: Introduction to Psychology and Sociology
**Department:** Faculty of Dentistry, MSA
**Course Coordinator**: Dr. Aziza Hafez
**Level**: 4-5 **Credit Hours**: 2
**Prerequisites**: None

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| 2- Objective of Course: | - To enhance the student understanding of a discipline moving rapidly towards a level of integration, unity coherence and cross-fertilization between its various sub fields. Students study the principles of psychology applicable to many different contexts of medicine and organizations. A wide array of theoretical perspectives is presented and an attempt is made to provide students with enough background in research methods and insight into health related behavior. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Demonstrate an understanding of the field of psychology; theories, research and applications that constitute the discipline.<br>- Identify how psychology relates to health situations and medical organizations. |
| ii. Intellectual Skills: | - At the end of this module students will be able to:<br>- Apply psychological theories to current problems and propose solutions.<br>- Discuss the main influencing factors in current social context in an informed and more thoughtful manner.<br>- Deal with stress in health related situations.<br>- Critically think about psychological phenomena, particularly those that have an impact on health related situations and medical organizations. |
| iii. Practical & Professional Skills: | |
| iv. General & Transferable Skills: | |

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| 4- Course Content: | - Introduction<br>- Origins and development<br>- Research Methods in Psychology<br>- The Biology Underlying Behavior<br>- Communication Learning<br>- Social Cognition: Intelligence<br>- Motivation<br>- Personality<br>- Health Psychology<br>- Applications of Psychology to Medicine<br>- Applying Psychology to Health Related Behavior |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment : | |
| i. Assessment Schemes: | - Students sit for a first semester unseen exam of 90 minutes and a final unseen exam of 3 hours- with multiple choice, short answer and long essay questions. Students undertake a practical project where they must evaluate a current psychological theory using a current case study. They must submit a 1500 word report. |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course tests and quizzes 20%<br>Mid-Semester exam 20%<br>End of Semester exam 60%<br>**Total** 100% |
| 8- List of references: | |
| i. Handouts & Lecture Notes | - The course coordinator will distribute handouts at the beginning of the semester that covers the whole curriculum of the course. |
| ii. Reference Textbooks | - Feldman, Robert S. 1997 Understanding Psychology, 4th edition McGraw-Hill Inc. Baucum, Don 1999 Psychology Baron's Educational Series Inc. |
| iii. Suggested Reading Reference | |

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| iv. Useful websites,…..etc. | - Http://www.psych.purdue.edu/~esmith/scarch.html |

## Elective Course
## Course Outline

**Course Code**: STC 200
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: Advanced Statistics
**Department:** Faculty of Engineering, MSA
**Course Coordinator**: Professor Adel Al Gohainy
**Level**: 4-5 **Credit Hours**: 2
**Prerequisites**: None

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| 2- Objective of Course: | - This course is designed to introduce the student to some basic and advanced statistical techniques which provides the methodology to make inferences about the population from the collection and analysis of sample data. These methods enhance the student's knowledge and ability to derive plausible generalisations and then assess the extent of uncertainty underlying them. Statistical concepts are also essential during the planning stage of an investigation when decisions must be made as to the mode and extent of the sampling process. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Understand graphs and how to read them.<br>- Transform raw data to furnished data that can be analyzed and interpreted<br>- Make inference about the population from the collection and analysis of sample data. |
| ii. Intellectual Skills: | - Ability to read scientific papers.<br>- Ability to comprehend epidemiological studies<br>- Ability to use computers in different applications |
| iii. Practical & Professional Skills: | |
| iv. General & Transferable Skills: | |

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| 4- Course Content: | - Introduction to descriptive statistics<br>- Measures of central tendency, description, and position.<br>- Binomial distribution<br>- Normal distribution for continuous variables<br>- Sampling distribution.<br>- Estimation.<br>- Simple regression |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Computer lab sessions to apply the theoretical knowledge. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment : | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams.<br>- Lab exam.<br>- Oral exam.<br>- Three hours final exam |
| ii. Assessment Schedule: | |
| iii. Assessment Pattern: | In Course tests and quizzes 20%<br>Mid-Semester exam 20%<br>End of Semester exam 60%<br>**Total** 100% |
| 8- List of references: | |
| i. Handouts & Lecture Notes | - The course coordinator will distribute handouts at the beginning of the semester that covers the whole curriculum of the course. |
| ii. Reference Textbooks | - Richard A. Johnson, Gouri K. Bhattacharyya 2001 Statistics,Student Solutions Manual Principles and Methods 4th ed , John Wiley & Sons Mario F, Triola 2003 Elementary Statistics, 9th ed Addison Wesley |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | - Http://www.psych.purdue.edu/~esmith/scarch.html |

Elective Course
Course Outline

**Course Code**: ENG 201
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: English Language for Research
**Department:** Faculty of Languages, MSA
**Course Coordinator**: Professor Aziza Hafez
**Level**: 4-5 **Credit Hours**: 3
**Prerequisites**: ENG 102d

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| 2- Objective of Course: | - This module emphasizes research skills necessary for writing research papers. It also provides a survey of different articles on specialized topics. The module trains the students on rhetorical awareness beyond traditional composition, intensive writing practice with a thorough guidance on using references and citing sources. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | Upon completing this course, students will be able to:<br>- Analyze different texts to identify thesis statements and developmental functions of those texts.<br>- Identify fallacies in the texts they analyze.<br>- Identify different library classification systems and card catalogs.. |
| ii. Intellectual Skills: | At the end of this module students will be able to:<br>- Write outlines and summaries.<br>- Develop logical arguments.<br>- Identify key elements of problems and choose appropriate methods for their resolution in a considered manner.<br>- Write a research paper using correct in-text citations according to the APA style.<br>- Prepare in their research paper a complete"Reference" page prepared according to the APA style.<br>- Present their papers using slides or computer software. |
| iii. Practical & Professional Skills : | |
| iv. General & Transferable Skills: | |

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| 4- Course Content: | - Topics<br>- Introduction and instructions explaining objectives, assignments and grading system<br>- Library Skills and Classification Systems<br>- Reading: Unit 1<br>- Thesis Statement<br>- Reading: Unit 2<br>- Outlining (Submit research paper outline)<br>- Reading: Unit 3<br>- Summary Writing<br>- Reading: Unit 4<br>- Organization Analysis<br>- Application of Summary Writing (Source I)<br>- APA in-text citations<br>- Organization Analysis<br>- Application of Summary Writing (Source II)<br>- Reading: Unit 5<br>- Revision<br>- Fallacies<br>- Reading: Unit 6<br>- Fallacies (Cont.)<br>- Reading: Unit 7<br>- APA Style Sheet<br>- Application of Summary Writing (Source III)<br>- APA Style Sheet (Cont.)<br>- Application of Summary Writing (Source IV)<br>- Reading: Unit 8<br>- Application of Summary Writing (Source V)<br>- Submitting Research Paper & Giving Oral Presentations<br>- |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Computer lab sessions to apply the theoretical knowledge. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment : | |
| v. Assessment Schemes: | Assessment of the student's knowledge about:<br>- Writing research papers and project reports<br><br>Assessment of the student's ability to:<br>- Survey different articles on specialized topics.<br>- Use proper reference citations.<br>- Analyze new abstract data and situations using a wide range of techniques<br>- Synthesize information, expand or redefine existing knowledge.<br>- Organize research papers, project reports and books. |
| vi. Assessment Schedule: | - Learning Unit Contact Hours Per week:<br>- Lectures: - 3 hrs |

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| | - Tutorials - 2 hrs<br>- Total class contact hours per semester: - 45<br>- Total other study hours per semester: - 30<br>- Total study hours per semester: - 75 |
| vii. Assessment Pattern: | Attendance and Participation 10%<br>Research Paper 30%<br>Mid-Semester Examination 20%<br>Final Examination 40% |
| 8- List of references: | |
| i. Handouts & Lecture Notes | - The course coordinator will distribute handouts at the beginning of the semester that covers the whole curriculum of the course. |
| ii. Suggested Reading Reference | - Anderson, J. Poole, M. , 2002 Assignment and Thesis Writing (4th edition) Wiley , Silyn-Roberts, H. 1996 Writing for Science Longman Oshima, Alice, Hogue, Ann 1998 Writing Academic English Addison Wesley,John Swales 1991 Genre Analysis: English In Academic and Research Settings Cambridge University Press Zaher, Christian 1997 Academic Writing Skills, Cairo Sphinx Bookshop Raimes, Ann 1996 Keys for Writers, New Jersey Houghton Muffin Roseberry and Weinstock 1992 Reading Etc, New Jersey Prentice Hall Greenall, S. 1976 Effective Skills Reading for Advanced Students Cambridge University Press |
| iii. Useful websites,…..etc. | - http://www.devry-phx.edu/irnresrc/dowsc/<br>- http://www.owl.english.purdue.edu/ |

Elective Course
Course Outline

**Course Code**: DPH 200
**Campus**: Faculty of Dentistry (MSA)
**Course Title**: Dental Photography
**Department:** Faculty of Dentistry, MSA
**Course Coordinator**: Dr Ahmed Salah Hashem
**Level**: 4-5 **Credit Hours**: 2
**Prerequisites**: None

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| 2- Objective of Course: | - This course is designed to introduce the student to some basic and advanced photographic techniques which enable the student to utilize oral and dental photography as an aid of scientific research and appreciate modern trends in the field of photography and understand the facilities offered by and the limits imposed by cameras. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | - Upon completing this course, students will be able to:<br>- Understand the concept of registering photographic images.<br>- Understand how to select the proper tools that he may use to achieve his photographic needs.<br>- Understand the basics of digital photography. |
| ii. Intellectual Skills: | - Ability to take acceptable medical, dental and scientific photographic images.<br>- Ability to avoid and correct errors and defects that he/she may meet with in their photographic work.<br>- Ability to effectively digitally edit/enhance photographic images |
| iii. Practical & Professional Skills: | |
| iv. General & Transferable Skills: | |

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| 4- Course Content: | Topics<br>- What is Photography? Registration of an image on a receiver<br>- What is Light?<br>- -A mix or spectrum of seven visible colours<br>- -Wave lengths of light colours<br>- -Characteristics of light<br>- -Colour temperature<br>- Basic colours<br>- Complementary Colours<br>- The Camera<br>- Types<br>- Range finder<br>- SLR (Single Lens Reflex) (inter-changeable lens)<br>- -Components of the camera<br>- Lens<br>- Properties<br>- Types<br>- Shutter<br>- Film<br>- Negative<br>- Black and white<br>- Colour<br>- Positive<br>- Black and white<br>- Colour<br>- Factors affecting image quality<br>- Lighting (brightness and contrast)<br>- Diaphragm<br>- Shutter speed (for continuous light)<br>- Light distribution<br>- Distance from flash and guide no of the flash<br>- Focus<br>- Properties of an image<br>- Sharpness<br>- Depth of field<br>- Contrast<br>- Brightness<br>- Colour balance<br>- Digital Photography<br>- Requirements for scientific digital photography<br>- Photographic Errors<br>- Digital enhancement of poorly photographed images |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles.<br>- Practical sessions to apply the theoretical knowledge. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment : | |

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| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams.<br>- Practical exam.<br>- Oral exam.<br>- Three hours final exam. |
| ii. Assessment Schedule: | - Learning Unit Contact Hours<br>- Per week:<br>- Lectures: - 1 hr<br>- Tutorials 2 hrs<br>- Total class contact hours per semester: 15<br>- Total other study hours per semester: 30<br>- Total study hours per semester: 45 |
| iii. Assessment Pattern: | In Course tests and quizzes 40%<br>Mid-Semester exam 20%<br>End of Semester exam 40%<br>**Total** **100%** |
| 8- List of reference: | |
| i. Handouts & Lecture Notes | - The course coordinator will distribute handouts at the beginning of the semester that covers the whole curriculum of the course. |
| ii. Reference Textbooks | - Wolfgang Bengel 2002 Mastering Dental Photography Quintessens Verlags. |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | |

Elective Course

Course Outline

**Course Code**: BLS 200

**Campus**: Faculty of Dentistry (MSA)

**Course Title**: Basic Life Support

**Department:** Physiology Department

**Course Coordinator**: Dr.Sherif Nassib

**Level**: 4-5 **Credit Hours**: 2

**Prerequisites**: None

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| 2- Objective of Course: | - The course aims to:<br>- Integrating the first aid tools to the students with their usage in different critical situations.<br>- Outlining a plan for several first aids situations management. |
| 3- Intended Learning Outcomes: | |
| i. Knowledge & Understanding: | - Upon completing this course, students will be able to:<br>- Attributing management of road causalities.<br>- Making handle of fractures<br>- Outlining the treatment of poisoning, wounds and head injuries |
| ii. Intellectual Skills: | - Checking of comatosed person.<br>- Integrating airway patency with normal circulation |
| iii. Practical & Professional Skills: | - Perform Cardio-pulmonary Resuscitation.<br>- Attributing management of chocked persons.<br>- Measure of arterial blood pressure |
| iv. General & Transferable Skills: | - Act in a Team work.<br>- Appreciate the importance of life-long self-learning and show strong commitment to it.<br>- Respect ethics related to laboratory work.<br>- Communicate properly with his/her teachers, colleagues and laboratory workers.Communicate properly with his/her teachers, colleagues and laboratory workers. |

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| 4- Course Content: | - Indicative Content<br>- Cardio-pulmonary resuscitation (CPR).<br>- Road Casualties<br>- Hemorrhage<br>- Wounds<br>- Head Injuries<br>- Fractures<br>- Joint Dislocation<br>- Poisoning<br>- Drowning<br>- Choking and Motion Sickness<br>- Burns and Drugs to be avoided in certain diseases.<br>- |
| 5- Learning & Teaching Strategies: | - Lectures to explain underlying principles.<br>- Tutorials to help in understanding these principles. |
| 6- Learning & Teaching Strategies for Students under Probation: | |
| 7- Students assessment : | |
| i. Assessment Schemes: | - Written quizzes/tests, multiple choice exams.<br>- Practical exam.<br>- Oral exam.<br>- Three hours final exam. |
| ii. Assessment Schedule: | - Learning Unit Contact Hours<br>- Per week:<br>- Lectures: - 1 hr<br>- Tutorials - 2 hrs<br>- Total class contact hours per semester: - 15<br>- Total other study hours per semester: - 30<br>- Total study hours per semester: - 45 |
| iii. Assessment Pattern: | In Course tests and quizzes 40%<br>Mid-Semester exam 10%<br>Oral Exam 10%<br>End of Semester exam 40%<br>**Total** **100%** |
| 8- List of references : | |
| i. Handouts & Lecture Notes | - The course coordinator will distribute handouts at the beginning of the semester that covers the whole curriculum of the course. |

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| ii. Reference Textbooks | - Kumar, P., and Clark, M. L. 2013 Kumar and Clark's clinical medicine Elsevier Health Sciences 978-0702044991<br>- Berg, R. A., Hemphill, R. 2013 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Edition edition Cardiovascular Care LWW; Fourth, North American (October 28,<br>- 2013)<br>- 978-1451121186 |
| iii. Suggested Reading Reference | |
| iv. Useful websites,…..etc. | - www.mayoclinic.com/health/FirstAidIndex/FirstAidIndex.<br>- www.firstaidweb.com/<br>- www.hsi.com/medicfirstaid/about/<br>- www.sia.org.uk/sia/first-aid-advice.aspx<br>- www.webmd.com/firstaid/default.htm<br>- www.redcross.org/<br>- www.hse.gov.uk/firstaid/www.heart.org/.../CPR UCM 001118 SubHomePage.isp<br>- wwvv.osha.gov/SLTC/medicalfirstaid/<br>- www.firstaidforfree.com/<br>- www.netplaces.com/first-aid/appendix-a.../first-aid-websites.htm |

**لائحة كلية طب الأسنان**

**لمرحلة البكالوريوس**

## الباب الأول
## التعريف بالكليه وأهدافها

**ماده (1)**

كلية طب الأسنان هي إحدي كليات جامعه العلوم الحديثة والآداب، وهى معنيه بإعداد الكوادر اللازمه لممارسة مهنة طب الفم والأسنان، وهي تختص بالتعليم والبحث العلمي والتدريب فى هذا المجال. ومهنة طب الأسنان هي مهنه تخصصيه تطبيقيه تُكتسَب فيها المهارات بقاعده علميه قويه واطلاع مستمر وتدريب ينتج عن الممارسه، وفي المجتمعات الناميه مثل المجتمع المصري والعربي علي حد سواء تعتبر الوقايه الصحيه من الإهتمامات الرئيسيه، ومن أهم المداخل لذلك هو الإهتمام بصحة الفم والأسنان. لذا يهدف إنشاء كلية طب الأسنان لتحقيق الأهداف الآتية:

**أ.** إعداد كوادر من أطباء الأسنان المتميزين وعلى درجه عاليه من المهاره العلميه و العمليه.

**ب.** توفير فرص التدريب والتعليم المستمر سواءً لخريجى الكليه أو لجميع العاملين في مجال طب الأسنان بهدف رفع كفاءتهم وإطلاعهم علي كل تطور جديد بيولوجياً وتكنولوجياً فى مجال طب الأسنان.

**ج.** تطبيق النظم الحديثه في طرق التدريس والتدريب والأمتحانات والأبحاث.

**د.** تخريج طبيب أسنان قادر علي تلبية احتياجات المجتمع سواء العلاجيه أو الوقائيه محلياً وعالمياً.

**ه.** فتح المجال للتعاون بين الطلاب وخريجى الكليه مع مراكز الأبحاث والمعاهد العلميه المماثله للأرتقاء بالمهنه وفتح المجال الدولى للدراسه والعمل بالخارج.

**ماده (2)**

يكون لكلية طب الأسنان مجلس كليه لإدارة شئونها و يتكون المجلس من:

**أ.** عميد الكليه : يتم تعيينه ويباشر اختصاصاته وفقاً لأحكام القوانين المنظمه لإنشاء الجامعات الخاصه ولائحتها التنفيذيه واللائحه الداخليه للجامعه والكليه.

**ب.** وكلاء الكليه.

**ج.** رؤساء الأقسام.

**د.** عضو من الأساتذه المساعدين واخر من المدرسين بالكليه يختاران سنوياً من بين أعضاء هيئة التدريس بترتيب أقدميتهم وعضوان علي الأكثر من ذوي الخبره من الخارج، وذلك بعد أخذ موافقة رئيس الجامعه.

يختص مجلس الكليه بالنظر فى موضوعات التخطيط والتنسيق والمتابعه والتطوير لشئون الكليه، وعلي الأخص النظر فى نظم التدريس وتوزيع الدروس علي أعضاء هيئة التدريس طبقاً لمقترحات مجالس الأقسام، وندب الأعضاء للتدريس من خارج الكليه وتحديد مواعيد الأمتحانات والنظر فى نتائجها طبقاً للقانون وللنظام الأساسى للجامعه.

**ماده (3)**

تتكون كلية طب الأسنان من الأقسام التاليه:

**أ.** قسم هيستولوجيا وبثالوجيا الفم والأسنان، ويشمل التخصصات التاليه:
1- التشريح الوصفي للأسنان.
2- بيولوجيا الفم والأسنان.
3- باثولوجيا الفم والأسنان.

**ب.** قسم الأستعاضه الصناعيه للأسنان ويشمل التخصصات التاليه:
1- خواص المواد فى طب الأسنان.
2- التركيبات المتحركه للأسنان.
3- التركيبات الخاصه للوجه والفكين.
4- التركيبات الخاصه بغرس الأسنان.

**ج.** قسم علاج الأسنان التحفظى ويشمل التخصصات التاليه:
1- الجراحه التحفظيه و التجميليه للأسنان.
2- التيجان والجسور
3- علاج الجذور.

**د.** قسم جراحة الفم والتخدير ويشمل التخصصات التاليه:
1- جراحة الفم ويشمل جراحة الوجه والفكين.
2- التخدير الموضعى.
3- التخدير العام.

**ه.** قسم طب الأسنان للأطفال ويشمل التخصصات التاليه:
1- علاج أمراض أسنان الأطفال.
2- تقويم الأسنان.
3- طب الأسنان الوقائى والصحه العامه للفم.

**و.** قسم علاج أمراض الفم ويشمل التخصصات التاليه:
1- طب الفم.
2- أمراض اللثه.
3- التشخيص والأشعه.

**ز.** قسم التخصصات المعاونة ويشمل:
1- الكيمياء (غير العضوية – الفيزيائية – العضوية).
2- الطبيعة.
3- علم الحيوان.
4- علم النبات.
5- علم الإحصاء.
6- الهيستولوجيا العامة.
7- الميكروبيولوجيا العامة.
8- علم الوراثة.
9- آداب وقوانين المهنة
10- التشريح العام.
11- الفيسيولوجيا العامة.
12- الكيمياء الحيوية.
13- الأقربازين.
14- الباثولوجيا العامة.
15- الأمراض الباطنة والأمراض الجلدية
16- الجراحة العامة وأمراض الأنف والأذن والحنجرة وأمراض العيون

**ماده (4)**

تمنح الجامعه بناء على طلب مجلس كلية طب الأسنان درجة البكالوريوس فى طب وجراحة الفم والأسنان B.D.S. (Bachelor of Dental Surgery).

**الباب الثاني**
**نظام الدراسه**

**ماده (5)**

مدة الدراسه لنيل درجة البكالوريوس فى طب وجراحة الفم والأسنان خمس سنوات دراسية تكون الدراسة فيها كل الوقت، وهى مقسمه على عشر فصول دراسيه، بالإضافة إلى فصول صيفية اختيارية. وتنقسم الدراسه إلي مرحلتين كالأتي:

1- المرحله ما قبل الإكلينيكيه (تتكون من ستة فصول دراسيه)
2- المرحله الإكلينيكيه (تتكون من أربعة فصول دراسيه)

**ماده (6)**

المواد التي تدرس لنيل درجة بكالوريوس في طب الأسنان وهي:

1- المرحله ماقبل الإكلينيكيه:

الكيمياء( العضويه وغير العضويه والكيمياء الفيزيائيه)- الفيزياء- مبادىء الأحصاء- الوراثه- علم النبات- علم الحيوان- التشريح الوصفى للأسنان.

تشريح عام- هستولوجيا عامه- فسيولوجيا عامه- كيمياء حيويه- خواص المواد المستخدمة في طب الأسنان- بيولوجيا الفم- تكنولوجيا العلاج التحفظي- تكنولوجيا التيجان والجسور- تكنولوجيا الأستعاضه الصناعيه للأسنان- تكنولوجيا علاج الجذور- ميكروبيولوجيا عامه- باثولوجيا عامه- الأقربازين- آداب وقوانين المهنه - بثالوجيا الفم (1) - أشعة الفم.

اللغه الأنجليزيه } متطلبات الجامعه
علوم الحاسب الآلى }

2- المرحله الأكلينيكيه:

الأمراض الباطنيه والجلديه والتناسليه- الجراحه العامه والأنف والأذن والحنجره والرمد- بثالوجيا الفم (2) - العلاج التحفظى للأسنان - التيجان والجسور- الأستعاضه الصناعيه للأسنان- علاج الجذور- جراحة الفم والتخدير- طب الفم وأمراض اللثه والتشخيص وأشعة الفم - تقويم الأسنان - طب أسنان الأطفال - طب الأسنان الشرعى والوقائى والصحه العامه للفم.

3- مواد إختياريه يختار الطالب اثنتين منها يدرسها خلال الفصول الدراسية التاليه للفصل الأول ويكون الأختيار بتوجيه من المشرف الأكاديمى للطالب:

إدارة أعمال - مبادىء الإلكترونيات - مبادىء صيانة أجهزة الكترونيه – التصوير الفوتوجرافى الطبى - خواص مواد عام - علم النفس والاجتماع - إحصاء – لغة إنجليزية – المعلوماتية والحاسب الآلى فى طب الأسنان..

4- يكون تسجيل الطاالب للدراسة مرتبطا بالمواد المؤهلة لكل مقرر طبقا للخريطة الدراسية (انظر ص 20 & والخريطة التالية).

**ماده (7)**

أحكام عامه:

1- ينقسم العام الدراسى إلى فصلين دراسيين يتخللهما امتحانات دوريه على مدى الفصل الدراسى.
2- يتقدم الطالب للفصل الدراسي الصيفى في موااد لا تزيد ساعاتها المعتمدة عن ثمان ساعات على الأكثر، ولابد أن يحضر الطالب خلال الفصل الصيفى بصوره مرضيه في تلك المواد للسماح له بدخول الأمتحان.
3- يسمح للطالب بالتسجيل في كل فصل دراسي طبقاً لمتطلبات المقررات الدراسيه وبموافقة المشرف الأكاديمى بما لا يتجاوز 22 ساعه معتمده في الفصل الدراسي الواحد.
4- إذا تجاوز غياب الطالب بدون عذر في أي مقرر نسبة 25% من عدد مرات الحضور للدروس العمليه والنظريه لا يسمح له بدخول الأمتحانات فى ذلك المقرر، وترصد له درجة (F) فى ذلك المقرر.
5- الطالب الغائب بعذر مقبول يسمح له بدخول الأمتحان بشرط إستيفاء مالا يقل عن نسبة 60% من عدد مرات الحضور للدروس العمليه والنظريه.

6- التسجيل لمتطلبات الكليه يكون طبقا لاستيفاء المواد المؤهلة كما هو مشار إليه فى البند (4) بالمادة (6) من هذه اللائحة فى حين أن الرسوب فى أى من مقررات متطلبات الجامعة أو المقررات الاختيارية لا تؤثر على تسجيله فى أى من المقررات الأخرى، علي أنه لن يمنح درجة البكالوريوس قبل إجتيازه بنجاح تلك المقررات.

## الباب الثالث
## شروط القبول

**ماده (8)**

1- أن يكون المتقدم مستوفيا لكل شروط القبول التي أقرها مجلس الجامعه بما لا يتعارض مع قانون تنظيم الجامعات الخاصه ولائحته التنفيذيه والقرار الجمهوري الصادر بإنشاء الجامعه وأن يتمشى مع قرارات لجنة الجامعات الخاصه.
2- أن يجتاز المتقدم بنجاح اختبار القدرات الذي تعقده الجامعه.
3- يجوز للكليه أن تقبل الطلاب الحاصلين علي البكالوريوس في الطب والجراحه ويتم إعفاؤهم من المقررات المناظره التي درسوها في كلية الطب. وتعد لهم جداول خاصه لاستكمال المواد الخاصه بطب الأسنان التي لم يدرسوها ويمكن لهم إتمام ذلك في أربعة فصول دراسيه علي الأقل.
4- كما يجوز للكليه أن تقبل الحاصلين علي درجة البكالوريوس من الكليات العمليه الأخري بعد تقييم المواد التي درسوها ومطابقتها بالمواد التي تدرس بالكليه للنظر في إمكانية إعفائهم من بعض المواد السابق دراستها والنجاح فيها.

**ماده (9)**

يجوز قبول تحويل الطلاب المقيدين في إحدي كليات طب الأسنان في الجامعات المصريه أو الجامعات الأجنبيه المعترف بها بالشروط الأتيه:

1- أن يكون الطالب حاصلا علي مجموع الدرجات في الثانويه العامه أو ما يعادلها لا تقل عن الحد الأدني المنصوص عليه بقرار رئيس الجمهوريه بشأن إنشاء الجامعه وعن الحد الأدني الذي يقرره مجلس الجامعات الخاصه كل عام.
2- أن يكون حاصلاً علي جميع المواد المؤهله للألتحاق بكلية طب الأسنان.
3- أن يجتاز بنجاح اختبارات القدرات والقبول التي يحددها مجلس الجامعه.
4- يشترط أن يدرس الطالب أربعة فصول دراسيه علي الأقل قبل تخرجه من الكليه.

**ماده (10)**

علي الطالب متابعة الدروس العمليه والنظريه في كل فصل دراسي. وإذا تجاوز غيابه نسبة 25% لا يسمح له بحضور الامتحان النهائى وترصد له درجة (F) في المقرر أو المقررات التي تغيب عنها. وإذا تقدم الطالب بعذر يقبله مجلس الكليه يعتبر الطالب غائباً بعذر مقبول وعليه أن يستوفى شروط الحضور والمتطلبات في فصل دراسي تالٍ إذا لم يستوفي نسبة حضور 60% علي الأقل في ذلك الفصل الدراسي.