

**University / Academy: Future University in Egypt**

**Faculty / Institute: Oral and Dental Medicine**

**Department: Orthodontics and Pediatric Dentistry**

## **Program specification**

**(Academic year 2016/2017)**

### **A. Basic information:**

**1. Program Name: Dental Public Health and Community Dentistry**

**2. Nature of the program: Single**

**3. Department responsible for the program: Orthodontics and Pediatric Dentistry**

**4. Departments sharing in the program:**

- **Oral Biology and Oral pathology Department**
- **Oral Medicine, Periodontology, Diagnosis and Radiology**
- **Supplementary General Science Department**

**5. Program coordinator: Assoc. Prof. Dr. Osama Ebrahim El Shahawy**

**6. Internal evaluator: Assoc. Prof. Samah Mohamed Awad**

**7. External evaluator: prof. Fatma Elshehaby**

**8. Date of program specification approval:**

- **department council: 14/3/2016**
- **faculty council : 21 / 3 /2016 (No 47)**

**9. Date of approval of the program: 23 / 12 /2013 (Ministry of Higher Education No. 4794)**

## **B. professional Information:**

### **1. Overall aims of the program:**

The aims of master degree program of public health graduates are:

- 1.1. Apply the basics and methodologies of scientific research and the use of its various tools.
- 1.2. Analyze medical and social data using different statistical methods.
- 1.3. Integrate specialized knowledge with relevant knowledge in public health dentistry disciplines.
- 1.4. Deal with the current obstacles facing preventive public health development as well as the recently developed approaches.
- 1.5. Plan oral health education programs to solve the professional problems.
- 1.6. Integrate professional skills as well as recent advances in the development of appropriate public health programs.
- 1.7. Communicate effectively and be able to lead a team.
- 1.8. Take decisions to handle different situations and community conflicts.
- 1.9. Utilize and maintain all available resources and knowledge to get the best output in different aspects of health education and preventive dentistry programs.
- 1.10. Play a role in the development of society and the preservation of the environment in light of global and regional changes.
- 1.11. Conduct and reflect the commitment to integrity, creditability and adherence to the all the professional rules.
- 1.12. Appreciate continuous education and self development.

### **2. intended learning outcomes of the program:**

#### ***2/A Knowledge and understanding:***

***By the end of the program, the graduate should be able to:***

- 2A.1. identify theories and fundamentals of public health and all basic sciences.
- 2A.2. discuss the influence of public health and its impact on the environment and community.
- 2A.3. recognize scientific development and recent advances in planning and oral health programs.

2A.4. identify ethical and legal principles of professional practice in preventive dentistry.

2A.5. explain principles and fundamentals of quality practice in tackling and preventing oral and dental diseases.

2A.6. describe the basics of ethics in scientific research.

## **B. Intellectual skills**

*By the end of the program, the graduate should be able to:*

2B.1. Evaluate measures of disease frequency and relate risk factors and disease for proper planning of oral health programs.

2B.2. demonstrate trends in normal and abnormal available epidemiological data in Egypt as well as worldwide.

2B.3. discover appropriate health promotion, disease prevention and control measures of identified priority communicable diseases.

2B.4. Design scientific research study and /or systematic reviews based on a research problem.

2B.5. Discover populations at high risk and plan accordingly.

2B.6. utilize appropriate quality concepts and processes for performance improvement.

2B.7. Take the professional decisions in various situations.

## **C. Professional and practical skills**

*By the end of the program, the graduate should be able to:*

2C.1. apply basic and modern professional skills for planning and providing public health services.

2C.2. Write and evaluate reports related to public health as well as scientific researches.

2C.3. develop the techniques and tools used in preventive dentistry programs.

## **D. General and transferrable skills**

*By the end of the program, the graduate should be able to:*

- 2D.1. communicate effectively with colleagues, members of the team to successfully complete a project.
- 2D.2. Use information technology during professional practice.
- 2D.3. determine the personal educational needs for continuous education.
- 2D.4. use different sources to acquire information and knowledge.
- 2D.5. evaluate the performance of team members.
- 2D.6. Work in a team and lead a team in the different professional contexts.
- 2D.7. Manage time efficiently.
- 2D.8. appreciate continues self-learning in both academic and practical fields.

## **3. Program academic standards:**

**Academic standards of master degree program of: Dental Public Health & Community Dentistry:**

- **approved in department council on 1/4/2014**
- **postgraduate affairs: 3/8/2015**
- **Approved in faculty council no (40) on 10/8/2015**

## **4. References standards:**

- a. **Academic reference standards ARS, master program (March 2009) issued by NAQAAE**
- b. **external reference standards (bench mark): None**

## 5. Program Structure and contents:

### A. Duration of Program: minimum 2 years.

- 1<sup>st</sup> part : 2 semesters 15week x 2 : 1 year
- 2<sup>nd</sup> part: 2 semesters: 1 year
- Thesis: minimum 1 year after completion of 1<sup>st</sup> part

### B. Structure of the Program:

- Number of credit hours: total 68 theoretical 34 practical and clinical 32  
Field training: 2
- Compulsory 50 selective 0 elective 4
- Thesis: 12 credit hours
- Field training: 2

Basic science courses: 24 credit hour 35,3 %

Social and Human Sciences courses: 4 credit hour 5,9 %

Specialization courses: 22 credit hour 32,3 %

Elective Courses 4 credit hour 5,9 %

Field training: 2 credit hour 2,9 %

Thesis: 12 credit hour 17,7 %

### C) Program levels

First part: Passage required 28 Unit distributed as follows:

Compulsory: 28 credit hours      Selective: 0      elective: 2 credit hours

Second part: Passing 22 Unit (distributed as follows:

Compulsory: 22 credit hours      Selective: 0      elective: 2 credit hours

Thesis: 12 credit hours

### Program Courses:

**1st part (1st. semester)**

**A - compulsory:**

Course Code	Course Name	credit hour	Number of weekly hours		
			Practical	exercises	Theoretical
601	Oral Pathology	3	2	-	2
603	Oral Histology	3	2	-	2
621	Psychology	2	0	-	2
611	Diagnosis and Radiology	2	2	-	1
623	community	2	0	-	2
625	Forensics	2	0	-	2

**B. Selective: -**

**C. Elective:**

يختار الطالب ٢ مقرر من المقررات الآتية خلال الجزء الأول أو الثاني من البرنامج:

كيمياء حيوية ، زراعة الأسنان ، تطبيقات الليزر في طب اسنان ، الطوارئ الطبية لطب الأسنان

**1st part (2nd. semester)**

**A - compulsory:**

Course Code	Course Name	credit hour	Number of weekly hours		
			Practical	exercises	Theoretical
602	Oral Pathology	3	2	-	2
604	Oral Histology	3	2	-	2
622	Psychology	2	0	-	1
612	Diagnosis and Radiology	2	2	-	2
624	community	2	0	-	2
626	Forensics	2	0	-	2

**B. Selective:**

**C. Elective:**

يختار الطالب ٢ مقرر من المقررات الآتية خلال الجزء الأول أو الثاني من البرنامج:

كيمياء حيوية ، زراعة الأسنان ، تطبيقات الليزر في طب اسنان ، الطوارئ الطبية لطب الأسنان

**2nd part (1st. semester)**

**A - compulsory:**

Course Code	Course Name	credit hour	Number of weekly hours		
			Practical	exercises	Theoretical
729	Preventive Dentistry	5	4	-	3
735	Community Dentistry	6	6	-	3

**B. Selective: -**

**C. Elective:**

يختار الطالب ٢ مقرر من المقررات الآتية خلال الجزء الأول أو الثاني من البرنامج:

كيمياء حيوية زراعة الأسنان ، تطبيقات الليزر في طب اسنان ، الطوارئ الطبية لطب الأسنان

**2nd part (2nd. semester)**

**A - compulsory:**

Course Code	Course Name	credit hour	Number of weekly hours		
			Practical	exercises	Theoretical
730	Preventive Dentistry	5	4	-	3
736	Community Dentistry	6	6	-	3

**B. Selective: -**

**C. Elective:**

يختار الطالب ٢ مقرر من المقررات الآتية خلال الجزء الأول أو الثاني من البرنامج:

كيمياء حيوية زراعة الأسنان ، تطبيقات الليزر في طب اسنان ، الطوارئ الطبية لطب الأسنان

## 7- Program admission and requirements:

١. أن يكون المتقدم حاصلًا على درجة البكالوريوس في طب وجراحة الفم والأسنان من إحدى كليات طب الأسنان بجمهورية مصر العربية أو على درجة معادلة لها من قبل المجلس الأعلى للجامعات بتقدير جيد على الأقل في التقدير العام وجيد في مادة التخصص المراد الالتحاق بدراستها. ويجوز قبول لدراسة الماجستير الطلاب الحاصلين على دبلوم التخصص المراد الالتحاق به بتقدير عام جيد على الأقل وجيد جدا في مادة التخصص .
٢. يجوز كذلك القبول في الفروع الأكاديمية بالشروط نفسها في البند السابق من هذه المادة على الوجه التالي :-
  - أ- ماجستير بثالوجيا وماجستير بيولوجيا الفم من الحاصلين على دبلوم التخصص الإكلينيكي لطب الفم وعلاج اللثة.
  - ب- ماجستير خواص المواد من الحاصلين على دبلوم التخصص الإكلينيكي للاستعاضة الصناعية للأسنان أو للعلاج التحفظي للأسنان أو التيجان و الجسور أو علاج الجذور.
  ٣. أن يكون قد مضى سنتين على الأقل من تاريخ التخرج بشرط أن يكون قد أمضى السنة الاجبارية للتدريب (الامتياز) .
  ٤. موافقة جهة العمل للمتقدم على قيده لدرجة الماجستير وكذلك موافقتها على تفرغ الطالب طوال مدة الدراسة.
  ٥. موافقة مجلس القسم المختص.
  ٦. أن يقدم الطالب طلبا متضمنا جميع المستندات المذكورة في بنود هذه المادة باسم السيد الدكتور عميد الكلية خلال المدة من أول يوليو حتى نهايته من العام المراد القيد به لهذه الدرجة، ولا تقبل أى إستثناءات بعد هذا التاريخ مهما كانت الأسباب، وبالنسبة للأجانب تطبق القواعد المعمول بها من قبل المجلس الاعلي للجامعة.
  ٧. يشترط ان يكون الطالب غير مقيد باي درجة من درجات الدراسات العليا.

## 8. Rules governing the completion of the program:

١. أن يتابع الطالب بصفة مرضية جميع المقررات الدراسية المنصوص عليها في اللائحة حسب كل تخصص وان يحقق نسبة حضور لا تقل عن ٧٥% في كل مقرر و الا حرم من دخول الامتحان في ذلك المقرر.
٢. أن يؤدي الطالب جميع المتطلبات الدراسية التي يحددها مجلس كل قسم من المقررات الدراسة المقرر دراستها في اللائحة و الا حرم من دخول الامتحان في ذلك المقرر.
٣. يشترط لنجاح الطالب اجتياز جميع الامتحانات المقررة المنصوص عليها في اللائحة حسب كل تخصص طبقا لنظام الساعات المعتمدة.



٤. يشترط لنجاح الطالب في اي مقرر من السنة الدراسية الاولى ( الجزء الاول) ان يحصل علي درجة لا تقل عن ٦٠% من النهاية العظمي لمجموع الدرجات في المقرر، و علي الايقل ما يحصل عليه في الامتحان التحريري و الشفهي و العملي عن ٦٠% من النهاية العظمي لمجموع الدرجات في المقرر) كل امتحان علي حدة.
٥. يشترط لنجاح الطالب في اي مقرر من السنة الدراسية الثانية ( الجزء الثاني) ان يحصل علي درجة لا تقل عن ٦٠% من النهاية العظمي لمجموع الدرجات في المقرر، و علي الايقل ما يحصل عليه في الامتحان التحريري و الشفهي و العملي و الاكلينيكي عن ٦٠% من النهاية العظمي لمجموع الدرجات في المقرر (كل امتحان علي حدة).
٦. يعد الطالب راسبا اذا تغيب عن دخول اي امتحان او جزء منه بدون عذر قهري يقبله مجلس الكلية تبعا لما هو محدد بقرارات الجامعة.
٧. يكون الطالب الراسب في احد جزئي درجة الماجستير (الاول و الثاني) فيما رسب فيه من مقررات فقط.
٨. يمكن للطالب الراسب في بعض مقررات فصل دراسي أن يدرس بعض مقررات الفصل الدراسي التالي على أن يقوم بأداء إمتحانات مواد الرسوب مع إمتحانات الفصل التالي.

## 9 – Students Assessment Methods

Intended learning outcomes	Methods	م
<ul style="list-style-type: none"> <li>Knowledge and understanding</li> <li>intellectual skills</li> </ul>	Written examination	1
<ul style="list-style-type: none"> <li>Knowledge and understanding</li> <li>intellectual skills</li> <li>General and transferrable Skills</li> </ul>	Oral examination	2
<ul style="list-style-type: none"> <li>Knowledge and understanding</li> <li>intellectual skills</li> <li>practical / clinical Skills</li> <li>General and transferrable Skills</li> </ul>	Practical / clinical examination	3
<ul style="list-style-type: none"> <li>Knowledge and understanding</li> <li>intellectual skills</li> <li>practical / clinical Skills</li> <li>General and transferrable Skills</li> </ul>	Thesis	4

## 10- Evaluation of the program:

Evaluator	Tools	Sample
Internal evaluator (s) مقيّم داخلي	<ul style="list-style-type: none"><li>Reviewing according to external evaluator Checklist report of NAQAA.</li></ul>	1-2 Reports
External Evaluator (s) مقيّم خارجي	<ul style="list-style-type: none"><li>Reviewing according to external evaluator Checklist report of NAQAA.</li></ul>	1-2 Reports
Senior student (s) طلاب السنة النهائية	Questionnaire	جميع طلاب السنة النهائية
Alumni الخريجون	<ul style="list-style-type: none"><li>Focus group discussion</li><li>Meetings</li><li>Questionnaire</li></ul>	عينة لا تقل عن ٥٠% من خريجي آخر ٣ دفعات
Stakeholder (s) أصحاب العمل	<ul style="list-style-type: none"><li>Focus group discussion</li><li>Meetings</li><li>Questionnaire</li></ul>	عينة ممثلة لجميع جهات العمل
Others طرق أخرى	none	

## 11- Teaching and learning strategies:

- Active learning
- Outcome- based learning
- Problem-based learning
- Self learning

Program coordinator: Assoc. Prof. Dr. Osama Ebrahim El Shahawy

Head of department: Assoc. Prof. Dr. Yehia Mostafa

## الملاحق :

ملحق ١ : program Academic standard المعايير الأكاديمية للبرنامج

ملحق ٢: المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة.

ملحق ٣: مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا الصادرة عن الهيئة.

ملحق ٤: مصفوفة البرنامج مع المعايير الأكاديمية للبرنامج.

ملحق ٥: مصفوفة اهداف ونواتج تعلم البرنامج

ملحق ٦: مصفوفة المقررات مع نواتج تعلم البرنامج  
Program-Courses ILOs Matrix

ملحق ٧: توصيف المقررات

## ملحق ١: Academic standard program

### 1. Graduate attributes

The attributes of master degree program of public health graduates:

- 1.1. Mastering the application of the basics and methodologies of scientific research and the use of its various tools.
- 1.2. Apply simple statistical methods to analyze and understand medical and social data.
- 1.3. Apply specialized knowledge and integrate it with relevant knowledge in different disciplines of public health.
- 1.4. Show awareness of the current obstacles facing preventive public health development as well as the recently developed approaches.
- 1.5. Demonstrate the ability to identify and solve the professional obstacles faced when planning oral health education programs.
- 1.6. Mastering the appropriate range of integrated professional skills as well as recent advances in the development of appropriate public health programs.
- 1.7. Communicate effectively and be able to lead a team.
- 1.8. Show the ability to take decisions to handle different situations and conflicts.
- 1.9. Utilize and maintain all available resources and knowledge to get the best output in different aspects of health education and preventive dentistry programs.
- 1.10. Show awareness of his role in the development of society and the preservation of the environment in light of global and regional changes.
- 1.11. Conduct and reflect the commitment to integrity, creditability and adherence to the all the professional rules.
- 1.12. Continues education and self development whether academically or professionally.

### 2. General reference standards

#### A. Knowledge and understanding

The public health master program graduates should demonstrate knowledge and understanding of:

- 2A.1. Theories and fundamentals of public health and all related basic sciences.
- 2A.2. Influence of public health and its impact on the environment and community.
- 2A.3. Scientific development and recent advances in planning and conducting oral health programs.
- 2A.4. Ethical and legal principles of professional practice in preventive dentistry.

2A.5. Principles and fundamentals of quality practice in tackling and preventing oral and dental diseases.

2A.6. The basics of ethics in scientific research.

### **B. Intellectual skills**

By the end of the program the public health master degree graduate should be capable of:

2B.1. Analyze and evaluate of measures of disease frequency as well as the association between risk factors and disease and directing these data towards proper planning of oral health programs.

2B.2. Identify trends in health and disease based on the available epidemiological data in Egypt as well as worldwide.

2B.3. relate the infectious cycle for selected diseases with appropriate health promotion, disease prevention and control measures to identified priority communicable diseases.

2B.4. Conduct scientific research study and /or write systematic reviews based on a research problem.

2B.5. Categorize populations at high risk and planning accordingly.

2B.6. Prioritize the dimensions of quality in health care and how to appropriately utilize quality concepts and processes for performance improvement.

2B.7. Take the professional decisions in various domains.

### **C. Professional and practical skills**

By the end of the program the public health master degree graduate should be capable of:

2C.1. Mastering basic and modern professional skills in planning and providing public health services.

2C.2. Write and evaluate professional reports.

2C.3. Evaluate the techniques and tools used in preventive dentistry programs.

#### **D. General and transferrable skills**

By the end of the program the public health master degree graduate should be capable of:

2D.1. Effective communication with colleagues, members of the team to successfully complete a project.

2D.2. Use information technology towards serving the professional practice.

2D.3. Monitor own performance through audit and feedback to determine the personal educational needs to enable continuous education.

2D.4. Employ different sources to acquire information and knowledge.

2D.5. Formulate basis and parameters of evaluating the performance of team members.

2D.6. Work in a team as well as team leading in the different professional contexts.

2D.7. Manage time efficiently.

2D.8. Continues self-learning in both academic and practical fields.

## ملحق ٢: المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة.

### برامج الماجستير

١- مواصفات الخريج :

خريج برنامج الماجستير في أي تخصص يجب أن يكون قادرا على:

- ١,١ إجادة تطبيق أساسيات ومنهجيات البحث العلمي واستخدام أدواته المختلفة.
- ٢,١ تطبيق المنهج التحليلي واستخدامه في مجال التخصص.
- ٣,١ تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة في ممارسته المهنية.
- ٤,١ إظهار وعيا بالمشاكل الجارية والرؤى الحديثة في مجال التخصص.
- ٥,١ تحديد المشكلات المهنية و إيجاد حلول لها.
- ٦,١ إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية.
- ٧,١ التواصل بفاعلية والقدرة على قيادة فرق العمل.
- ٨,١ اتخاذ القرار في سياقات مهنية مختلفة.
- ٩,١ توظيف الموارد المتاحة بما يحقق أعلى استفادة والحفاظ عليها.
- ١٠,١ إظهار الوعي بدوره في تنمية المجتمع والحفاظ على البيئة في ضوء المتغيرات العالمية والإقليمية.
- ١١,١ التصرف بما يعكس الالتزام بالنزاهة والمصداقية والالتزام بقواعد المهنة.
- ١٢,١ تنمية ذاته أكاديميا ومهنيا وقادرا على التعلم المستمر.

٢- المعايير القياسية العامة :

٢.١ المعرفة والفهم :

بانتهاؤ دراسة برنامج الماجستير يجب أن يكون الخريج على فهم و دراية بكل من:

- ١,١,٢ النظريات والأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
- ٢,١,٢ التأثير المتبادل بين الممارسة المهنية وانعكاسها على البيئة.

- ٣,١,٢ التطورات العلمية في مجال التخصص.
- ٤,١,٢ المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص.
- ٥,١,٢ مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص.
- ٦,١,٢ أساسيات وأخلاقيات البحث العلمي.

## ٢.٢ المهارات الذهنية :

بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:

- ١,١,٢ تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل.
- ٢,١,٢ حل المشاكل المتخصصة مع عدم توافر بعض المعطيات.
- ٣,١,٢ الربط بين المعارف المختلفة لحل المشاكل المهنية.
- ٤,١,٢ إجراء دراسة بحثية و/أو كتابة دراسة علمية منهجية حول مشكلة بحثية.
- ٥,١,٢ تقييم المخاطر في الممارسات المهنية في مجال التخصص.
- ٦,١,٢ التخطيط لتطوير الأداء في مجال التخصص.
- ٧,١,٢ اتخاذ القرارات المهنية في سياقات مهنية متنوعة.

## ٣.٢ المهارات المهنية :

بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:

- ١,٤,٢ إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.
- ٢,٤,٢ كتابة و تقييم التقارير المهنية.
- ٣,٤,٢ تقييم الطرق والأدوات القائمة في مجال التخصص.

## ٤.٢ المهارات العامة والمنتقلة :

بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:

- ١,٤,٢ التواصل الفعال بأنواعه المختلفة.



استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية.	٢,٤,٢
التقييم الذاتي وتحديد احتياجاته التعليمية الشخصية.	٣,٤,٢
استخدام المصادر المختلفة للحصول على المعلومات والمعارف.	٤,٤,٢
وضع قواعد ومؤشرات تقييم أداء الآخرين.	٥,٤,٢
العمل في فريق، وقيادة فرق في سياقات مهنية مختلفة.	٦,٤,٢
إدارة الوقت بكفاءة.	٧,٤,٢
التعلم الذاتي والمستمر.	٨,٤,٢

ملحق ٣: مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا  
الصادرة عن الهيئة.

١. مواصفات الخريج:

مواصفات الخريج بالمعايير الأكاديمية للبرنامج Graduate attributes of the program	مواصفات الخريج بالمعايير القياسية العامة لبرامج الدراسات العليا (درجة الماجستير) الهيئةARS
1.1. Mastering the application of the basics and methodologies of scientific research and the use of its various tools.	١,١ إجادة تطبيق أساسيات ومنهجيات البحث العلمي واستخدام أدواته المختلفة.
1.2. Apply simple statistical methods to analyze and understand medical and social data.	٢,١ تطبيق المنهج التحليلي واستخدامه في مجال التخصص.
1.3. Apply specialized knowledge and integrate it with relevant knowledge in different disciplines of public health.	٣,١ تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة في ممارسته المهنية.
1.4. Show awareness of the current obstacles facing preventive public health development as well as the recently developed approaches.	٤,١ إظهار وعيا بالمشاكل الجارية والرؤى الحديثة في مجال التخصص.
1.5. Demonstrate the ability to identify and solve the professional obstacles faced when planning oral health education programs.	٥,١ تحديد المشكلات المهنية وإيجاد حلول لها.
1.6. Mastering the appropriate range of integrated professional skills as well as recent advances in the development of appropriate public health programs.	٦,١ إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية.
1.7. Communicate effectively and be able to lead a team.	٧,١ التواصل بفاعلية والقدرة على قيادة فرق العمل.
1.8. Show the ability to take decisions to handle different situations and conflicts.	٨,١ اتخاذ القرار في سياقات مهنية مختلفة.
1.9. Utilize and maintain all available resources and knowledge to get the best output in different aspects	٩,١ توظيف الموارد المتاحة بما يحقق أعلي استفادة والحفاظ عليها.

of health education and preventive dentistry programs.	
1.10. Show awareness of his role in the development of society and the preservation of the environment in light of global and regional changes.	١٠,١ إظهار الوعي بدوره في تنمية المجتمع والحفاظ على البيئة في ضوء المتغيرات العالمية والإقليمية.
1.11. Conduct and reflect the commitment to integrity, creditability and adherence to the all the professional rules.	١١,١ التصرف بما يعكس الالتزام بالنزاهة والمصداقية والالتزام بقواعد المهنة.
1.12. Continues education and self development whether academically or professionally.	١٢,١ تنمية ذاته أكاديميا ومهنيا وقادرا علي التعلم المستمر.

## ٢- المعايير القياسية العامة :

### ٢-١- المعرفة والفهم:

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)
2.A.1 Theories and fundamentals of public health and all related basic sciences.	٢-١-١ النظريات والأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
2.A.2 Influence of public health and its impact on the environment and community.	٢-١-٢ التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة.
2A..3 Scientific development and recent advances in planning and conducting oral health programs.	٢-١-٣ التطورات العلمية في مجال التخصص.
2.A.4 Ethical and legal principles of professional practice in preventive dentistry.	٢-١-٤ المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص.
2.A.5 Principles and fundamentals of quality practice in tackling and preventing oral and dental diseases.	٢-١-٥ مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص.
2.A.6 The basics of ethics in scientific research.	٢-١-٦ أساسيات وأخلاقيات البحث العلمي.

## ٢-٢ المهارات الذهنية :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)
2B.1. Analysis and evaluation of measures of disease frequency as well as the association between risk factors and disease and directing these data towards proper planning of oral health programs.	١-٢-٢ تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل.
2B.2. Identify trends in health and disease based on the available epidemiological data in Egypt as well as worldwide.	٢-٢-٢ حل المشاكل المتخصصة مع عدم توافر بعض المعطيات.
2B.3. relate the infectious cycle for selected diseases with appropriate health promotion, disease prevention and control measures to identified priority communicable diseases.	٣-٢-٢ الربط بين المعارف المختلفة لحل المشاكل المهنية.
2B.4. Conduct scientific research study and /or write systematic reviews based on a research problem.	٤-٢-٢ إجراء دراسة بحثية و/أو كتابة دراسة علمية منهجية حول مشكلة بحثية.
2B.5. Categorize populations at high risk and planning accordingly.	٥-٢-٢ تقييم المخاطر في الممارسات المهنية في مجال التخصص.
2B.6 Prioritize the dimensions of quality in health care and how to appropriately utilize quality concepts and processes for performance improvement.	٦-٢-٢ التخطيط لتطوير الأداء في مجال التخصص.
2B.7. Take the professional decisions in various domains.	٧-٢-٢ اتخاذ القرارات المهنية في سياقات مهنية متنوعة.

## ٣. مهارات مهنية وعملية :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)

2C.1. Mastering basic and modern professional skills in planning and providing public health services.	إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.
2C.2. Write and evaluate professional reports.	١,٤,٢ كتابة و تقييم التقارير المهنية.
2C.3. Evaluate the techniques and tools used in preventive dentistry programs.	٢,٤,٢ تقييم الطرق والأدوات القائمة في مجال التخصص.

#### ٤. مهارات عامة و منتقلة :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)
2D.1. Effective communication with colleagues, members of the team to successfully complete a project.	التواصل الفعال بأنواعه المختلفة.
2D.2. Use information technology towards serving the professional practice.	استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية.
2D.3. Monitor own performance through audit and feedback to determine the personal educational needs to enable continuous education.	التقييم الذاتي وتحديد احتياجاته التعليمية الشخصية.
2D.4. Employ different sources to acquire information and knowledge.	استخدام المصادر المختلفة للحصول على المعلومات والمعارف.
2D.5. Formulate basis and parameters of evaluating the performance of team members.	وضع قواعد ومؤشرات تقييم أداء الآخرين.
2D.6. Work in a team as well as team leading in the different professional contexts.	العمل في فريق، وقيادة فرق في سياقات مهنية مختلفة.
2D.7. Manage time efficiently.	إدارة الوقت بكفاءة.

2D.8. Continues self-learning in both academic and practical fields.

التعلم الذاتي والمستمر.

ملحق ٤ : مصفوفة البرنامج مع المعايير الأكاديمية للبرنامج.

<p><b>Over all Aims of the program</b> أهداف البرنامج</p>	<p>مواصفات الخريج ARS البرنامج</p>
<p>1.1. Apply the basics and methodologies of scientific research and the use of its various tools.</p>	<p>1.1 Master the application of the basics and methodologies of scientific research and the use of its various tools.</p>
<p>1.2. Analyze medical and social data using different statistical methods.</p>	<p>1.2 Apply simple statistical methods to analyze and understand medical and social data.</p>
<p><b>1.3</b> Integrate specialized knowledge with relevant knowledge in public health dentistry disciplines.</p>	<p>1.3 Apply specialized knowledge and integrate it with relevant knowledge in different disciplines of public health.</p>
<p><b>1.4</b> Deal with the current obstacles facing preventive public health development as well as the recently developed approaches.</p>	<p>1.4 Show awareness of the current obstacles facing preventive public health development as well as the recently developed approaches.</p>
<p><b>1.5</b> Plan oral health education programs to solve the professional problems.</p>	<p>1.5 Demonstrate the ability to identify and solve the professional obstacles faced when planning oral health education programs.</p>
<p><b>1.6</b> Integrate professional skills as well as recent advances in the development of appropriate public health programs.</p>	<p>1.6 Master the appropriate range of integrated professional skills as well as recent advances in the development of appropriate public health programs.</p>

<p><b>1.7</b> Communicate effectively and be able to lead a team.</p>	<p><b>1.7</b> Communicate effectively and be able to lead a team.</p>
<p><b>1.8</b> Take decisions to handle different situations and community conflicts</p>	<p><b>1.8</b> Show the ability to take decisions to handle different situations and conflicts.</p>
<p>1.9 Utilize and maintain all available resources and knowledge to get the best output in different aspects of health education and preventive dentistry programs.</p>	<p>1.9 Utilize and maintain all available resources and knowledge to get the best output in different aspects of health education and preventive dentistry programs.</p>
<p>1.10 Play a role in the development of society and the preservation of the environment in light of global and regional changes.</p>	<p>1.10 Show awareness of his role in the development of society and the preservation of the environment in light of global and regional changes.</p>
<p>1.11 Conduct and reflect the commitment to integrity, creditability and adherence to the all the professional rules.</p>	<p>1.11 Conduct and reflect the commitment to integrity, creditability and adherence to the all the professional rules.</p>
<p>1.12 continuous education and self development</p>	<p>1.12 Continues education and self development whether academically or professionally.</p>



نواتج تعلم البرنامج Knowledge & understanding						Knowledge & understanding المعايير الأكاديمية البرنامج ARS
المعرفة و الفهم						
2.a.6	2.a.5	2.a.4	2.a.3	2.a.2.	2.a.1.	
√	√				√	2.1.1 Theories and fundamentals related to the field of public health
				√		2.1.2 Mutual influence between public health practice and its environmental impact.
	√		√			2.1.3 Scientific development in the area of public health.
		√				2.1.4 Ethical and legal principles for dentistry practice.
	√			√		2.1.5 The principle and fundamentals of quality in professional practice in the area of public health.
√						2.1.6 Fundamentals and ethics of scientific research.

نواتج تعلم البرنامج							المعايير الأكاديمية للبرنامج المهارات الذهنية البرنامج ARS
Intellectual skills							
2.b.7	2.b.6	2.b.5	2.b.4	2.b.3	2.b.2.	2.b.1.	
						√	2.2.1 Analyze and evaluate the information in public health
					√		2.2.2 Solve problems in public health in absence of some inputs.
				√			2.2.3 Correlate between different knowledge to solve problem.
			√				2.2.4 Select suitable methods in conducting and writing a scientific study on a research problem
		√					2.2.5 Assess the risks in different treatment modalities
	√						2.2.6 Plan for the development of performance.
√							2.2.7 Make professional decisions in management of variable complex problems.

نواتج تعلم البرنامج			المعايير الأكاديمية للبرنامج المهارات المهنية البرنامج ARS						
Practical/Professional skills									
2.c.3	2.c.2.	2.c.1.							
		√	2.3.1 Apply basic and recent advances.						
	√		2.3.2 Write and evaluate professional reports and scientific research.						
√			2.3.3 Evaluate the used methods and tools.						
نواتج تعلم البرنامج								المعايير الأكاديمية للبرنامج المهارات العامة والمنتقلة البرنامج ARS	
General and transferable skill									
	2.d.8	2.d.7	2.d.6	2.d.5	2.d.4	2.d.3	2.d.2.		2.d.1.
								√	2.4.1 Communicate effectively.
							√		2.4.2 Use information technology to serve professional practice.
						√			2.4.3 Make self-assessment and identify personal educational needs.
					√				2.4.4 Use different resources to access information and knowledge.
				√					2.4.5 Develop rules and indicators for evaluating the performance of others.
			√						2.4.6 Work in a team, leading teams in different professional contexts.
		√							2.4.7 Manage time efficiently.
	√								2.4.8 Carry out continuing and self-learning.

ملحق ٥ : مصفوفة اهداف ونواتج تعلم البرنامج

نواتج تعلم البرنامج											Program aims	
Knowledge & understanding												
المعرفة و الفهم												
						2.a.6	2.a.5	2.a.4	2.a.3	2.a.2.	2.a.1.	
						√	√		√			1.1 Implement basic methodologies of scientific research in the field of public health.
							√				√	1.2 Adopt the critical and analytical thinking approaches in subjects relevant to public health.
												1.3 Predict and correlate the relation between aspects of knowledge.
											√	1.4 Show considerable awareness regarding biological, mechanical and esthetic problems and the recent theories and trends in the field of public health.
										√		1.5 Identify and suggest suitable clinical procedures for routine and complex cases in the field of public health
							√					1.6 Select the evidence based treatment for each case.
												1.7 Apply recent epidemiological tools in developing the professional practice of preventive problems using specialized professional skills.
												1.8 Work as a team leader as well as effectively communicate with professional colleagues.
								√				1.9 Select the proper line of treatment for each case.



										1.10 Utilize the available resources to achieve the highest utilization and its maintenance.
										1.11 Show awareness of its role in the development of society and preservation of the environment in the light of global and regional changes.

نواتج تعلم البرنامج										Program aims	
Practical/Professional skills											
								2.c.3	2.c.2.	2.c.1.	
									√		1.1 Implement basic methodologies of scientific research in the field of public health
								√	√		1.2 Adopt the critical and analytical thinking approaches in subjects relevant to public health
											1.3 Predict and correlate the relation between aspects of knowledge
								√		√	1.4 Show considerable awareness regarding biological, mechanical and esthetic problems and the recent theories and trends in the field of public health.
									√	√	1.5 Identify and suggest suitable clinical procedures for routine and complex cases in the field of public health
								√		√	1.6 Select the evidence based treatment for each case.
								√		√	1.7 Apply recent contemporary materials and techniques developing the professional practice of diagnosis in public health
											1.8 Work as a team leader as well as effectively communicate with professional colleagues.

													1.9 Show commitment to dentistry guidelines and scientific research ethics.
													1.10 Utilize the available resources to achieve the highest utilization and its maintenance.
													1.11 Show awareness of its role in the development of society and preservation of the environment in the light of global and regional changes.
<b>نواتج تعلم البرنامج</b>												<b>Program aims</b>	
<b>General and transferable skill</b>													
				<b>2.d.8</b>	<b>2.d.7</b>	<b>2.d.6</b>	<b>2.d.5</b>	<b>2.d.4</b>	<b>2.d.3</b>	<b>2.d.2.</b>	<b>2.d.1.</b>		
								√		√			1.1 Implement basic methodologies of scientific research in the field of public health
										√			1.2 Adopt the critical and analytical thinking approaches in subjects relevant to public health.
										√	√		1.3 Predict and correlate the relation between aspects of knowledge
					√						√		1.4 Show considerable awareness regarding biological, mechanical and esthetic problems and the recent theories and trends in the field of public health.
					√						√		1.5 Identify and suggest suitable clinical procedures for routine and complex cases in the field of public health
										√			1.6 Select the evidence based treatment for each case.
					√			√					1.7 Apply recent contemporary

																	materials and techniques developing the professional practice of diagnosis in public health
						√	√					√					<b>1.8</b> Work as a team leader as well as effectively communicate with professional colleagues.
												√	√				<b>1.9</b> Show commitment to dentistry guidelines and scientific research ethics.
												√					<b>1.10</b> Utilize the available resources to achieve the highest utilization and its maintenance.
				√										√			<b>1.11</b> Show awareness of its role in the development of society and preservation of the environment in the light of global and regional changes.



Program-Courses ILOs

ملحق ٦: مصفوفة المقررات مع البرنامج

Matrix

Knowledge & Understanding						ILOs	
2.a.6	2.a.5	2.a.4	2.a.3	2.a.2	2.a.1	All Courses & codes	
√			√		√	601	Oral Pathology
√			√		√	603	Oral Histology
		√			√	621	Psychology
			√	√	√	611	Diagnosis
√			√		√	602	Oral Pathology
√			√		√	604	Oral Histology
			√		√	623	Community
			√	√		625	Forensics
√	√					622	Psychology
√	√	√				612	Diagnosis
√		√				624	Community
	√	√				626	Forensics
				√	√	729	Preventive Dentistry
			√	√	√	735	Community Dentistry
		√	√			730	Preventive Dentistry
√	√	√				736	Community Dentistry
√	√	√	√	√	√	-	Thesis

Intellectual Skills						ILOs	
2.b.6	2.b.5	2.b.4	2.b.3	2.b.2	2.b.1	All Courses & codes	
√			√		√	601	Oral Pathology
√			√		√	603	Oral Histology
		√	√		√	621	Psychology
			√	√	√	611	Diagnosis
√			√		√	602	Oral Pathology
√			√		√	604	Oral Histology
			√		√	623	Community
			√	√		625	Forensics
√	√		√			622	Psychology
√	√	√	√			612	Diagnosis
√		√	√			624	Community
	√	√	√			626	Forensics
			√	√	√	729	Preventive Dentistry
			√	√	√	735	Community Dentistry
		√	√			730	Preventive Dentistry
√	√	√	√			736	Community Dentistry
√	√	√	√	√	√	–	Thesis

Practical Skills			ILOs	
				All Courses & codes
2.c.3	2.c.2	2.c.1		
			601	Oral Pathology
			603	Oral Histology
			621	Psychology
			611	Diagnosis
			602	Oral Pathology
			604	Oral Histology
√	√	√	623	Community
			625	Forensics
			622	Psychology
√	√	√	612	Diagnosis
√	√	√	624	Community
			626	Forensics
√	√	√	729	Preventive Dentistry
√	√	√	735	Community Dentistry
√	√	√	730	Preventive Dentistry
√	√	√	736	Community Dentistry
√	√	√	—	Thesis

**First part courses****University:** Future University in Egypt**Faculty:** Faculty of Oral and Dental Medicine**Department:** oral biology and oral pathology department***Course Specification***

1- Basic Information		
Course Title: oral pathology	Course Code:601	Level: 1 <sup>st</sup> part master`s degree
Master degree in: All specialties	<i>Credit Hours: 3Theoretical:2 Practical:2</i>	

<b>2- Aim of the course:</b>	<ol style="list-style-type: none"> <li>1. To explain all structural, morphological and numerical alterations affecting hard dental tissues.</li> <li>2. To understand the biological process of dental caries and the role of bacteria, CHO and saliva.</li> <li>3. To classify different types of pulp inflammation.</li> </ol>
<b>3- Intended Learning Outcomes of Course (ILO):</b> By the end of the course, post graduate student should be able to:	
<b>a) Knowledge and understanding :</b>	<ol style="list-style-type: none"> <li>a.1 Discuss basic oral pathological terminology that may be encountered by all specialists in the dental practice.</li> <li>a.2 Classify developmental disturbances affecting the shape, structure and number of teeth.</li> <li>a.3 Explain the biological process of dental caries and the role of bacteria, CHO and saliva.</li> <li>a.4 Categorize types of pulp diseases.</li> <li>a.5 Identify the clinical signs &amp; symptoms of pulp inflammation</li> </ol>
<b>b) Intellectual Skills:</b>	<ol style="list-style-type: none"> <li>b1- Differentiate between the developmental disturbances affecting shape, structure and number of teeth.</li> <li>b2- Connect between factors affecting dental caries (bacteria, CHO and saliva) and caries progression.</li> <li>b3- Distinguish between different types of pulpitis according to the clinical signs and symptoms and classify them into focal reversible pulpitis, acute and chronic pulpitis.</li> </ol>

<b>c) Professional and Practical Skills:</b>	c1- Rank the structural and morphological defects affecting teeth. c2- Evaluate dental caries and its sequelae c3- Prioritize types of pulpitis based on clinical signs and symptoms and plan the treatment of each.
<b>d) General and transferable skills</b>	d1- Demonstrate appropriate professional attitudes and behavior in dealing with staff members & helping personnel . d2- Communicate effectively both verbally and in writing with other health care professionals to maximize patient benefits and minimize the risk of errors. d3- Apply the information technology as a means of communication for data collection and analysis and for life – long learning . d4- Identify the socioeconomic , cultural , geographical & occupational factors that may influence etiology of oral pathological conditions and the impact of disease on the community

<b>4- Course Contents:</b>	<ul style="list-style-type: none"> <li>• Developmental disturbances affecting the number and size of teeth.</li> <li>• Developmental disturbances affecting the shape, structure of teeth and eruption disorders.</li> <li>• Dental caries <ul style="list-style-type: none"> <li>- Etiology, role of bacteria, CHO and saliva.</li> <li>- Pathology of dental caries.</li> </ul> </li> <li>• Pulp diseases:- <ul style="list-style-type: none"> <li>- Etiology and classification.</li> <li>- Focal reversible pulpitis</li> <li>- Acute and chronic pulpitis.</li> </ul> </li> </ul>
<b>5- Teaching and Learning Methods</b>	<ul style="list-style-type: none"> <li>• Lectures with discussions (interactive lectures), Data show presentation, brain storming,</li> <li>• practical sessions: Microscopic slides:</li> <li>• Demonstration using computer projection</li> <li>• Discussion and practice of the skill of identification of microscopic slides.</li> </ul>

<b>6- Teaching and Learning Methods for special needs students</b>	Individual (one on one classes with one of the TA`s or lecturers during hours agreed upon by the student and the staff members)
<b>7- Student Assessment</b>	
<b>a) Assessment Methods</b>	<ul style="list-style-type: none"> <li>written examination to assess knowledge and understanding and assessment of general intellectual skills</li> <li>Multiple choice questions to assess knowledge and understanding and assessment of general intellectual skills</li> <li>Oral examination to assess knowledge and understanding (and assessment of practical skills &amp; assessment of general intellectual skills )</li> <li>Practical examination to assess knowledge and understanding and assessment of practical skills and assessment of general intellectual skills</li> </ul>
<b>b) Assessment Schedule</b>	Midterm written exam Final written exam (at the end of the semester) Final practical exam (at the end of the semester) Final oral exam(at the end of the semester)
<b>c) Weighting of Assessment</b>	Midterm written exam (30 marks of 150) Final written exam (60 marks of 150) Final practical exam (30 marks of 150) Final oral exam (30 marks of 150)
<b>8- list of References</b>	
<b>a. Course Notes</b>	The lecture notes are available (based on the latest edition of `oral and maxillofacial pathology / Neville)
<b>b. Essential Books (Text Books)</b>	Brad Neville, Doglas d. dam, Carl allen, et al 2015, Oral and Maxillofacial pathology 4 <sup>th</sup> ed., Sanders.
<b>c. Recommended Books</b>	Colored Atlas of oral pathology
<b>d. Scientific periodicals, bulletins, etc.....</b>	

*Course Coordinator: Dr. Adham Hussein Fahmy*

*Head of Department: Prof. Rehab Abdulmoneim*

*Date: / 3 /2016*

**University:** Future University in Egypt.  
**Faculty:** Faculty of Oral and Dental Medicine  
**Department:** oral biology and oral pathology department

### *Course Specification*

<b>1- Basic Information</b>		
<b>Course Title:</b> Oral histology 1	<b>Course Code:</b> 603	<b>Level:</b> 1 <sup>st</sup> part – 1 <sup>st</sup> semester
<b>Master degree in:</b> Orthodontics Fixed prosthetic dentistry Operative dentistry Prosthetic dentistry Oral and maxillofacial surgery	<b>Credit Hours: 3</b>  <b>Theoretical:2</b>  <b>Practical:2</b>	
<b>2- Aim of the course:</b>	<ul style="list-style-type: none"> <li>• To keep pace with recent advances and to provide an expanded knowledge about histology, embryology and physiology of tooth, enamel and dentine.</li> <li>• To serve as a basis for understanding the clinical courses such as oral pathology, oral surgery and oral medicine</li> </ul>	
<b>3- Intended Learning Outcomes of Course (ILO) :</b>		
<b>By the end of the course, post graduate student should be able to:</b>		
<b>a) Knowledge and understanding:</b>	<ul style="list-style-type: none"> <li>▪ Identify embryogenesis &amp; histology of dento-alveolar complex.</li> <li>▪ Describe the structure and the function of some different hard dental and para-dental tissues.</li> <li>▪ Recall the life cycle of the tooth starting from development to eruption and subsequent shedding.</li> <li>▪ Explain the clinical significance associated with certain dental hard and oral structures.</li> <li>▪ Describe the histological age changes of some dental and para-dental oral tissues.</li> </ul>	
<b>b) Intellectual Skills:</b>	<ol style="list-style-type: none"> <li>1. Predict the different stages of tooth development.</li> <li>2. Differentiate between the different oral and dental tissues.</li> <li>3. Distinguish any age changes or abnormalities that might affect some normal dental and oral tissues.</li> </ol>	

<b>c) Professional and Practical Skills:</b>	<ol style="list-style-type: none"> <li>1. Interpret the different dental &amp; para-dental tissues.</li> <li>2. Draw the histological structure of some hard dental tissues and para- dental soft tissues.</li> </ol>
<b>d) General and transferable skills</b>	<ol style="list-style-type: none"> <li>1. Communicate effectively with colleagues and interact in teamwork.</li> <li>2. Demonstrate appropriate professional attitude and behavior in different situations.</li> <li>3. Manage time effectively.</li> </ol>

<b>4- Course Contents:</b>	<ul style="list-style-type: none"> <li>• Tooth development</li> <li>• Enamel</li> <li>• Dentin</li> <li>• Periodontal ligament</li> <li>• Bone Tissue and Alveolar process</li> <li>• Salivary Glands and Saliva</li> <li>• Oral Mucosa Membrane</li> </ul>
<b>5- Teaching and Learning Methods</b>	<ol style="list-style-type: none"> <li>1- Interactive lectures: including power point data show, videos and brain storming.</li> <li>2- Practical and small group sessions: Each practical session is preceded by slide demonstration, description and drawing of oral tissues.</li> <li>3- Class discussions.</li> <li>4- Drawing in the practical books under supervision of the responsible staff members.</li> </ol>
<b>6- Teaching and Learning Methods for special needs students</b>	<p>Direct observation Individual teaching</p>



7- Student Assessment											
<b>a) Assessment Methods</b>	1- Written examination to assess knowledge and understanding and intellectual skills. 2- Oral examination to assess knowledge and understanding and intellectual skills and attitude. 3- Practical examination to assess practical skills & intellectual skills & general skills. 4- Practical book to assess practical skills. 5- Research assignments. 6- Presentations and seminars .										
<b>b) Assessment Schedule</b>	Final term										
<b>c) Weighting of Assessment</b>	<table border="0" style="width: 100%;"> <tr> <td style="text-align: right;">Final term Examination</td> <td style="text-align: right;">90</td> </tr> <tr> <td style="text-align: right;">Oral Examination</td> <td style="text-align: right;">30</td> </tr> <tr> <td style="text-align: right;">Practical Examination</td> <td style="text-align: right;">30</td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td style="text-align: right;">Total</td> <td style="text-align: right;">150</td> </tr> </table>	Final term Examination	90	Oral Examination	30	Practical Examination	30	<hr/>		Total	150
Final term Examination	90										
Oral Examination	30										
Practical Examination	30										
<hr/>											
Total	150										

7- List of References	
<b>a) Course Notes</b>	*Department handouts
<b>b) Essential Books (Text Books)</b>	Mary Bath-Balogh, Margaret J. Fehrenbach, Dental Embryology Histology and anatomy. Ten Cate's Oral Histology Development, Structure and Function.
<b>c) Recommended Books</b>	-----
<b>d) Scientific periodicals, bulletins, etc.....</b>	Websites related to the study subject: Science direct- Pub Med

**Course Coordinator: Rehab Abdul Moneim**  
**Head of Department: Rehab Abdul Moneim**  
**Date: / 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Oral medicine, periodontology, diagnosis and radiology

**Course Specification**

<b>1- Basic Information</b>		
<b>Course Title: oral radiology</b>	<b>Course Code:</b> ٦١١	<b>Level: 1<sup>st</sup> year master degree</b>
<b>Master degree in:</b>	Credit Hours: 3/ Theoretical: 2/Practical: 2	
<b>2- Aim of the course:</b>	<ol style="list-style-type: none"><li>1. To provide the students with information related to <b>radiological sciences</b> including radiation physics, image production, and possible errors</li><li>2. To enable the students to understand and use the <b>dental radiography equipment</b> such as machine, different types of image receptors and processing methods</li><li>3. To train students to <b>clinical imaging sciences</b> including conventional intra oral, digital radiography, head and neck imaging, panoramic imaging</li></ol>	

**3- Intended Learning Outcomes of Course (ILO) :****By the end of the course, post graduate student should be able to:**

<b>a. Knowledge and understanding :</b>	<ol style="list-style-type: none"><li>1- explain radiation physics, including X-rays production, different components of X-ray machine and the various properties of X-rays</li><li>2- Discuss how images are produced and identify different image characteristics as density, contrast, sharpness and resolution. Illustrate all factors affecting these characteristics.</li><li>3- Identify types of radiographic films by size, number and speed (intra-oral and extra-oral). Explain the underlying principles of the use of screens and discuss its different types and structure.</li><li>4- Explain the principles of all the intra oral radiographic techniques</li><li>5- Describe how images are produced by processing and describe different processing techniques and chemicals.</li><li>6- Identify the digital radiography systems and their advantages and uses.</li><li>7- Explain the principles of extra-oral radiographic techniques and understand their indications.</li><li>8- Identify different radiographic pitfalls, their causes and method of overcome.</li></ol>
<b>b. Intellectual Skills:</b>	<ol style="list-style-type: none"><li>1- Make decisions regarding proper radiographic prescription.</li><li>2- Formulate complete radiographic report for intraoral CMS, panoramic and extra oral radiographs.</li></ol>
<b>c. Professional and Practical Skills:</b>	<ol style="list-style-type: none"><li>1- Apply their knowledge and skills in radiographic techniques and processing to acquire excellent diagnostic quality radiographs</li><li>2- Complete full mouth periapical, bitewing, and occlusal survey images (CMS) for adults and children.</li></ol>

<b>d. General and transferable skills</b>	<ol style="list-style-type: none"> <li>1- Demonstrate appropriate professional attitudes and behavior in different situations toward patients, colleagues and supervisors.</li> <li>2- Provide empathic care for all patients without discrimination.</li> <li>3- Assess Regularly one's knowledge and skills, and seek additional information to correct deficiencies and enhance performance.</li> <li>4- Implement and monitor infection control and environmental safety programs according to current standard</li> </ol>
<b>4- Course Contents:</b>	<ul style="list-style-type: none"> <li>• X ray machine and production of x ray</li> <li>• Dental film</li> <li>• Digital radiography</li> <li>• IO techniques periapical, bitewing and occlusal EO views</li> <li>• Panoramic radiography (principle, technique)</li> <li>• Processing techniques</li> <li>• Common technique and processing errors</li> <li>• Processing</li> <li>• IO landmarks(maxilla)</li> <li>• IO landmarks(mandible)</li> <li>• Object localization and exercises</li> <li>• Infection control</li> <li>• EO landmarks</li> <li>• Panoramic anatomy</li> <li>• Panoramic errors</li> </ul>
<b>5- Teaching and Learning Methods</b>	<ul style="list-style-type: none"> <li>• Lectures by PPS presentations</li> <li>• Clinical training:</li> <li>• Demonstrations and videos</li> <li>• Work sheets and surveys</li> <li>• Report back sessions</li> <li>• rotations in radiology department</li> <li>• literature review seminars</li> <li>• Group work, team work, and self-presentation</li> </ul>
<b>6- Teaching and Learning Methods for special needs students</b>	<p style="text-align: center;">-----</p>

<b>7- Student Assessment</b>	
<b>a) Assessment Methods</b>	<ul style="list-style-type: none"> <li>• formative quizzes</li> <li>• clinical requirements, and reports</li> <li>• Final Written exam</li> <li>• Final Oral exam</li> <li>• Final clinical exam</li> </ul>
<b>b) Assessment Schedule</b>	<ul style="list-style-type: none"> <li>• First midterm exam(week5)</li> <li>• Second midterm exam(week10)</li> <li>• Practical exam( week 12)</li> <li>• Oral exam ( end of semester)</li> <li>• Final written exam( end of semester)</li> </ul>
<b>c) Weighting of Assessment</b>	<ul style="list-style-type: none"> <li>• Midterm written exam (20%)</li> <li>• Practical exam (20%)</li> <li>• Oral exam (20%)</li> <li>• Final written exam (40%)</li> </ul>
<b>8- List of References</b>	
<b>a) Course Notes</b>	Course notes available PPS available for the students from the department
<b>b) Essential Books (Text Books)</b>	Stuart C. White, DDS, PhD and Michael J. Pharoah, DDS, Oral Radiology, 7th Edition 2014 , Principles and Interpretation
<b>c) Recommended Books</b>	Eric Waites , Essentials of dental radiography and radiology, 5 <sup>th</sup> ed 2013
<b>d) Scientific periodicals, bulletins, etc.....</b>	Journal of maxillofacial radiology <a href="http://www.joomr.org/">http://www.joomr.org/</a>

**Course Coordinator: prof Gihan Omar**

**Head of Department: Prof Shahira Elashery**

**3/2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Orthodontics and Pediatric Dentistry

### ***Course Specification***

<b>1- Basic Information</b>		
<b>Course Title:</b> Psychology	<b>Course Code:</b> 621	<b>Level:</b> 1
<b>Master degree in:</b> Dental public Health and community Dentistry	<b>Credit Hours:</b> 2 Theoretical 2 Practical -	

<b>2- Aim of the course to:</b>	Understand effect of psychological behavior of the patients on dental health
<b>3- Intended Learning Outcomes of Course (ILO) :</b> By the end of the course, post graduate student should be able to:	
<b>a) Knowledge and understanding :</b>	1. discuss psychological factors affecting dental health of children
<b>b) Intellectual Skills:</b>	1. Analyze psychological problems of children 2. evaluate psychology of children
<b>c) Professional and Practical Skills:</b>	1. Manage children with different behaviors 2. Conduct scientific research on psychological problems of children
<b>d) General and transferable skills</b>	1. Communicate effectively with children and their relatives 2. Work in a team with other specialties

<b>4- Course Contents:</b>	Effect of psychological behavior of the patients on dental health (part 1)
<b>5- Teaching and Learning Methods</b>	<ol style="list-style-type: none"> <li>1. Interactive lectures including discussion and brain storming</li> <li>2. Small groups sessions</li> <li>3. Case study and problem solving</li> <li>4. Demonstration</li> <li>5. Self study</li> <li>6. seminars and presentation</li> </ol>
<b>6- Teaching and Learning Methods for special needs students</b>	-----
<b>7- Student Assessment</b>	
a) <b>Assessment Methods</b>	Written examination to assess knowledge and understanding and intellectual skills
b) <b>Assessment Schedule</b>	At the end of the course
c) <b>Weighting of Assessment</b>	100 % written exam

<b>List of References</b>	
a. <b>Course Notes</b>	Handout of presented seminars Department books
b. <b>Essential Books (Text Books)</b>	<b>BR Hergenhahn et al., An introduction to history of psychology 7<sup>th</sup> ed., 2008</b>
c. <b>Recommended Books</b>	

<b>d. Scientific periodicals, bulletins, etc.....</b>	<u><a href="http://www.pubmed.com">www.pubmed.com</a></u> . <u><a href="http://www.sciencedirect.com">www.sciencedirect.com</a></u> .
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***Course Coordinator: Prof. Amany Safwat***

***Date: / 3 /2016***



**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Orthodontics and Pediatric Dentistry

***Course Specification***

<b>1- Basic Information</b>		
<b>Course Title: public health and health education</b>	<b>Course Code: 623</b>	<b>Level: 1</b>

<b>Master degree in: Dental public Health and community Dentistry</b>	<b>Credit Hours: 2 Theoretical 2 Practical -</b>
<b>2- Aim of the course to:</b>	<ul style="list-style-type: none"> <li>• Differentiate between strategies of epidemiology</li> <li>• Apply essential knowledge in communicable and non-communicable diseases</li> <li>• Identify epidemiology of research epidemiological methods.</li> <li>• Improve the quality of life for community persons, through excellence and leadership of post graduates in clinical practice, preventive care and community service and increasing knowledge in epidemiology.</li> <li>• Provide students with knowledge about epidemiology and health behavior.</li> <li>• Establish self-learning</li> <li>• Differentiate between diseases and medical conditions</li> <li>• Serving professional practice using recent technology</li> </ul>
<b>3- Intended Learning Outcomes of Course (ILO) :</b> <b>By the end of the course, post graduate student should be able to:</b>	
<b>a) Knowledge and understanding :</b>	<b>A1. Discuss epidemiology of communicable and non-communicable diseases.</b> <b>A2. Discuss epidemiology of research methods</b>

b) Intellectual Skills:	<b>B1. Assess methods of epidemiological research and B2. Construct a research design. B3. Choose proper research methods in epidemiology.</b>
c) Professional and Practical Skills:	<b>C1. Evaluate communicable and non- communicable diseases. C2. Manage different diseases and medical conditions</b>
d) General and transferable skills	<b>D1. Use technology towards serving the professional practice D2. Establish self-learning for continuous development and improvement</b>

<b>4- Course Contents:</b>	<b>Introduction. Epidemiology of research methods. General epidemiology. Epidemiology of communicable diseases. Non communicable diseases. Communication and health behavior.</b>
<b>4- Teaching and Learning Methods</b>	Interactive lectures. Self-study, presentations, online material <ul style="list-style-type: none"> <li>• Small group teaching</li> <li>• Computer projects</li> <li>• Projector slides.</li> </ul>
<b>5- Student Assessment</b>	
a) Assessment Methods	Written exam Oral exam
b) Assessment Schedule	End of course
c) Weighting of Assessment	60 % written exam  40 % Oral exam

<b>6- List of References</b>	
<b>a. Course Notes</b>	<b>Department notes</b>
<b>b. Essential Books (Text Books)</b>	<b>Fundamentals of community dentistry 2nd Edition 2017</b>
<b>c. Recommended Books</b>	<b>Textbook of Community Medicine, 2nd Edition 2011</b>
<b>d. Scientific periodicals, bulletins, etc.....</b>	<ul style="list-style-type: none"> <li>• <a href="http://www.pubmed.com">www.pubmed.com</a>.</li> <li>• <a href="http://www.sciencedirect.com">www.sciencedirect.com</a>.</li> </ul>

***Course Coordinator: Prof. Abdelrahim Sholah***

***3/2016***

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** *Orthodontics and Pediatric Dentistry*

### **Course Specification**

<b>1- Basic Information</b>		
<b>Course Name:</b> forensic medicine 1	<b>Course Code:</b> 625	<b>Level:</b> first part, first semester
<b>Master degree in:</b> Dental public Health and community Dentistry	<b>Credit Hours: 2</b> - <b>Theoretical: 2</b> - <b>Practical: ---</b>	

#### **Professional information:**

<b>2- Aim of the course:</b>	To provide the postgraduate students with basic scientific knowledge, clinical skills, professional attitude and behavioral skills necessary for proper dealing with common medicolegal conditions related to dead cases that will be met during practicing dentistry.
<b>3- Intended Learning Outcomes of Course (ILOs) :</b> <b>By the end of the course, postgraduate student should be able to:</b>	
<b>a) Knowledge and understanding :</b>	3.a.1 Explain the meaning of death and its phases. 3.a.5 Identify deaths of medico-legal importance and objectives of their investigation. 3.a.4 Mention causes of sudden unexpected natural death and death under dental management. 3.a.2 Identify causes, characteristics, and medico-legal importance of death like states. 3.a.3 Discuss types, causes and ethical problems of brain death.
<b>b) Intellectual Skills:</b>	3.b.1 Differentiate between cause, mechanism, mode and manner of death. 3.b.2 Relate between the mechanism and cause of death.
<b>c) Professional and Practical Skills:</b>	3.c.1 Diagnose death from early and sure signs. 3.c.2 Apply identification methods utilized in forensic dentistry to identify unknown dead bodies.

<b>d) General and transferable skills</b>	<b>3.d.1 Respect</b> the dignity of the corps. <b>3.d.2 Establish</b> effective interpersonal relationship to communicate ideas and <b>3.d.3 Communicate</b> effectively with his colleagues and involve them in any ethical problems debate.
<b>4- Course Contents:</b>	<ul style="list-style-type: none"> <li>a. Definition and phases of death</li> <li>b. Medicolegal deaths and their handling</li> <li>c. Unexpected and sudden natural death</li> <li>d. Diagnosis of recent and late death</li> <li>e. Cause, mechanism, mode and manner of death</li> <li>f. Causes and mechanisms of deaths under dental management</li> <li>g. Identification methods in forensic dentistry</li> </ul>
<b>5- Teaching and Learning Methods</b>	<ul style="list-style-type: none"> <li>- Modified lectures (including discussion)</li> <li>- Case study and Problem solving</li> <li>- Demonstrations</li> <li>- Self-learning</li> </ul>
<b>6- Teaching and Learning Methods for special needs students</b>	<ul style="list-style-type: none"> <li>- Individual learning</li> </ul>
<b>7- Student Assessment</b>	
<b>a) Assessment Methods</b>	Written examination: <ul style="list-style-type: none"> <li>- MCQs</li> <li>- Case study</li> <li>- Short essay</li> <li>- Complete</li> <li>- True or false with explanation</li> </ul>
<b>b) Assessment Schedule</b>	Final written examination: by the end of the first semester
<b>c) Weighting of Assessment</b>	Final written examination: 100 Mark
<b>8- List of References</b>	
<b>a. Course Notes</b>	Educational Course of Course Coordinator
<b>b. Essential Books (Text Books)</b>	David R. S. and Paul G.S. (2010) Forensic Dentistry, 2 <sup>nd</sup> ed., CRC press, Boca Raton, London, New York.

<b>c. Recommended Books</b>	-----
<b>d. Scientific periodicals, bulletins, etc.</b>	- <a href="http://www.pubmed.com">http://www.pubmed.com</a> . - <a href="http://sciencedirect.com">http://sciencedirect.com</a>

**Course Coordinator: prof. Ebraheem Elgendy**

**Date: / 3 /2016**

**University:** Future University in Egypt.  
**Faculty:** Faculty of Oral and Dental Medicine  
**Department:** oral biology and oral pathology

**Course Specification**

1- Basic Information		
Course Title: oral pathology	Course Code:602	Level: 1 <sup>st</sup> part master`s degree
Master degree in: All specialties	<i>Credit Hours: 3 Theoretical:2Practical:2</i>	

<b>2- Aim of the course:</b>	<ol style="list-style-type: none"> <li>1. To demonstrate common pathological diseases affecting the periapical area.</li> <li>2. To highlight the differences between different types of cysts of oral and paraoral region.</li> <li>3. To underline different types of odontogenic tumors.</li> </ol>
3- Intended Learning Outcomes of Course (ILO): By the end of the course, post graduate student should be able to:	
<b>a) Knowledge and understanding :</b>	<ul style="list-style-type: none"> <li>a1- Describe the process of pulp necrosis and calcification</li> <li>a2-. Discuss different diseases affecting the periapical area</li> <li>a3- describe dental granuloma, dental abscess and alveolar osteitis</li> <li>a4- Identify the clinical signs &amp; symptoms of acute and chronic osteomyelitis</li> <li>a5- Categorize odontogenic cysts</li> <li>a6- Summarize soft tissue cysts</li> <li>a7- Classify odontogenic tumors into epithelial, mesenchymal and mixed.</li> </ul>



<b>b) Intellectual Skills:</b>	b1- Differentiate between pulp necrosis and calcifications. b2- Evaluate diseases of the periapical areas. b3- Distinguish between periapical granuloma, cyst and alveolar osteitis b4- Analyze types of osteomyelitis b5- Differentiate between different types of odontogenic cysts according to clinical, histological and radiographic pictures and compare them with soft tissue cysts. b6-Subdivide epithelial, mesenchymal and mixed odontogenic tumors according to their clinical behavior, histological and radiographic pictures.
<b>c) Professional and Practical Skills:</b>	c1- Hypothesize treatment plan to different diseases affecting periapical area (dental granuloma, abscess and alveolar osteitis) c2-Estimate the clinical signs and symptoms of acute and chronic osteomyelitis . c3- Predict the recurrence rate of odontogenic cysts and tumors based on their clinical behavior and histological pictures.
<b>d) General and transferable skills</b>	d1- Demonstrate appropriate professional attitudes and behavior in dealing with staff members & helping personnel . d2- Communicate effectively both verbally and in writing with other health care professionals to maximize patient benefits and minimize the risk of errors and to teach surgeons to convey the disease grade according to the commonly used grading systems worldwide. d3- Apply the information technology as a means of communication for data collection and analysis and for life – long learning . d4- Identify the socioeconomic , cultural , geographical & occupational factors that may influence etiology of oral pathological conditions and the impact of disease on the community

<b>4- Course Contents:</b>	<ul style="list-style-type: none"> <li>• Pulp necrosis and calcification</li> <li>• Diseases of periapical area</li> <li>• Dental granuloma, abscess and alveolar osteitis</li> <li>• Osteomyelitis (acute and chronic)</li> <li>• Odontogenic cysts</li> <li>• Classification of inflammatory odontogenic cysts</li> <li>• Soft tissue cysts</li> <li>• Odontogenic tumors</li> <li>• Classification of epithelial odontogenic tumors</li> <li>• Mesenchymal and mixed odontogenic tumors</li> </ul>
<b>5- Teaching and Learning Methods</b>	<ul style="list-style-type: none"> <li>• Lectures with discussions (interactive lectures), Data show presentation, brain storming, and case study.</li> <li>• Practical sessions.</li> <li>• Microscopic slides: Demonstration of slides using computer projection, Discussion and practice of the skill of identification of microscopic slides.</li> </ul>
<b>6- Teaching and Learning Methods for special needs students</b>	<p style="text-align: center;">Individual (one on one classes with one of the TA`s or lecturers during hours agreed upon by the student and the staff members)</p>
<b>7- Student Assessment</b>	
<b>a) Assessment Methods</b>	<ul style="list-style-type: none"> <li>• written examination to assess knowledge and understanding and assessment of general intellectual skills</li> <li>• Multiple choice questions to assess knowledge and understanding and assessment of general intellectual skills</li> <li>• Oral examination to assess knowledge and understanding (and assessment of practical skills &amp; assessment of general intellectual skills )</li> <li>• Practical examination to assess knowledge and understanding and assessment of practical skills and assessment of general intellectual skills</li> </ul>
<b>b) Assessment Schedule</b>	<p>Final written exam ( at the end of the semester) Final practical exam (at the end of the semester) Final oral exam( at the end of the semester)</p>
<b>c) Weighting of Assessment</b>	<p>Final written exam (90 marks of 150) Final practical exam (30 marks of 150) Final oral exam (30 marks of 150)</p>

<b>8- List of References</b>	
<b>a. Course Notes</b>	The lecture notes are available (based on the latest edition of `oral and maxillofacial pathology / Neville)
<b>b. Essential Books (Text Books)</b>	Brad Neville, Doglas d. dam, Carl allen, et al 2015, Oral and Maxillofacial pathology 4 <sup>th</sup> ed., Sanders.
<b>c. Recommended Books</b>	Colored Atlas of oral pathology
<b>d. Scientific periodicals, bulletins, etc.....</b>	

*Course Coordinator: Dr. Adham Hussein Fahmy*

*Head of Department: prof. Rehab Abdulmoneim*

*Date: / 3 /2016*

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** oral biology and oral pathology department

### Course Specification

1- Basic Information		
Course Title: Oral histology 2	Course Code: 604	Level:1 <sup>st</sup> part – 2 <sup>nd</sup> semester
Master degree in: Orthodontics Fixed prosthetic dentistry Operative dentistry Prosthetic dentistry Oral and maxillofacial surgery	<i>Credit Hours: 3</i>  <i>Theoretical:2</i>  <i>Practical:2</i>	
2- Aim of the course:	<ul style="list-style-type: none"> <li>To keep pace with recent advances and to provide an expanded knowledge about histology, embryology and physiology of cementum, pulp and shedding and eruption.</li> <li>To serve as a basis for understanding the clinical courses such as oral pathology, oral surgery and oral medicine</li> </ul>	
3- Intended Learning Outcomes of Course (ILO) :		
By the end of the course, post graduate student should be able to:		
a) Knowledge and understanding:	<ul style="list-style-type: none"> <li>Identify cementum &amp; pulpal dental tissues.</li> <li>Describe the structure and function of cementum &amp; pulp.</li> <li>Discuss important para-oral structures closely related to the oral cavity.</li> <li>Explain the clinical significance associated with these para-oral structures.</li> <li>Describe the histological age changes of cementum, pulp &amp; some para-oral structures.</li> <li>Describe histology &amp; physiology of teeth eruption &amp; shedding.</li> </ul>	

<b>b) Intellectual Skills:</b>	<ol style="list-style-type: none"> <li>1- Differentiate between the different oral and para-oral tissues.</li> <li>2- Illustrate the importance of the para-oral tissues and their clinical implications on the dental &amp; other oral tissues.</li> <li>3- Distinguish any age changes or abnormalities that might affect some dental cementum, pulp &amp; some para-oral tissues.</li> </ol>
<b>c) Professional and Practical Skills:</b>	<ol style="list-style-type: none"> <li>1. Interpret the normal histology of dental cementum &amp; pulp &amp; para-oral tissues through power point data show.</li> <li>2. Draw the histological structure of dental cementum, pulp &amp; para-oral tissues.</li> </ol>
<b>d) General and transferable skills</b>	<ol style="list-style-type: none"> <li>1. Communicate effectively with colleagues and interact in a team work.</li> <li>2. Demonstrate appropriate professional attitude and behavior in different situations.</li> <li>3. Manage time effectively.</li> </ol>
<b>4- Course Contents:</b>	<ul style="list-style-type: none"> <li>• Cementum</li> <li>• Pulp</li> <li>• Shedding</li> <li>• Eruption</li> <li>• Embryology (Cranio- facial embryology)</li> <li>• Maxillary Sinus</li> <li>• Tempro-mandibular joint</li> </ul>
<b>5- Teaching and Learning Methods</b>	<ol style="list-style-type: none"> <li>a) Interactive lectures: including power point data show, videos and brain storming.</li> <li>b) Practical and small group sessions: Each practical session is preceded by slide demonstration, description and drawing of oral tissues.</li> <li>c) Class discussions.</li> <li>d) Drawing in the practical books under supervision of the responsible staff members.</li> </ol>
<b>6- Teaching and Learning Methods for special needs students</b>	<p>Direct observation Individual teaching</p>

7- Student Assessment											
<b>a) Assessment Methods</b>	a) Written examination to assess knowledge and understanding and intellectual skills. b) Oral examination to assess knowledge and understanding and intellectual skills and attitude. c) Practical examination to assess practical skills & intellectual skills & general skills. d) Practical book to assess practical skills. e) Research assignments. f) Presentations and seminars.										
<b>b) Assessment Schedule</b>	Final term										
<b>c) Weighting of Assessment</b>	<table border="0"> <tr> <td>Final term Examination</td> <td>90</td> </tr> <tr> <td>Oral Examination</td> <td>30</td> </tr> <tr> <td>Practical Examination</td> <td>30</td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td>Total</td> <td>150</td> </tr> </table>	Final term Examination	90	Oral Examination	30	Practical Examination	30	<hr/>		Total	150
Final term Examination	90										
Oral Examination	30										
Practical Examination	30										
<hr/>											
Total	150										

8- List of References	
<b>a) Course Notes</b>	*Department handouts
<b>b) Essential Books (Text Books)</b>	<ul style="list-style-type: none"> <li>Mary Bath-Balogh, Margaret J. Fehrenbach, Dental Embryology Histology and anatomy.</li> <li>TenCate's Oral Histology Development, Structure and Function.</li> </ul>
<b>c) Recommended Books</b>	----
<b>d) Scientific periodicals, bulletins, etc.....</b>	Websites related to the study subject: Science direct- Pub Med

**Course Coordinator: Rehab Abdul Moneim**  
**Head of Department: Rehab Abdul Moneim**  
**Date: / 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Oral medicine periodontology diagnosis and radiology

### Course Specification

1- Basic Information		
<b>Course Title:</b> oral radiology	<b>Course Code:</b> 612	<b>Level:</b> 1 <sup>st</sup> year master degree
<b>Master degree in:</b>	<i>Credit Hours: 3/ Theoretical: 2/Practical: 2</i>	
<b>2- Aim of the course:</b>	<ol style="list-style-type: none"> <li>1. To train students to clinical imaging sciences including CT, CBCT, MRI, US, contrast and enhanced imaging</li> <li>2. To enable the students to interpret normal radiographic anatomy in intra oral and extra oral radiographs, CT and CBCT</li> <li>3. To identify radiographic manifestation of local and systemic diseases in head and neck region.</li> </ol>	
3- Intended Learning Outcomes of Course (ILO) : By the end of the course, post graduate student should be able to:		
<b>1. Knowledge and understanding :</b>	<ol style="list-style-type: none"> <li>1. Identify and list anatomical landmarks related to various intra-oral and extra-oral radiographs.</li> <li>2. Explain the principles of extra-oral radiographic techniques and understand their indications</li> <li>3. Discuss the methodological approach and principles of radiographic interpretation and description of lesions.</li> <li>4. Describe different carious lesions and radiographic methods of their evaluation.</li> <li>5. describe different periodontal lesions and radiographic methods of their evaluation</li> </ol>	
<b>2. Intellectual Skills:</b>	<ol style="list-style-type: none"> <li>1. Discuss principles of radiation biology, doses, and methods of protection with special emphasis on th ALARA concept</li> <li>2. Formulate complete radiographic report for intraoral CMS, panoramic and extra oral radiographs.</li> <li>3. Formulate a differential diagnosis list of a lesion</li> </ol>	

<b>3. Professional and Practical Skills:</b>	<ol style="list-style-type: none"><li>1- Appreciate normal radiographic anatomy and variations as well as common dental pathology seen on intraoral radiographs.</li><li>2- Learn the radiographic interpretation basics to enhance diagnostic skills and also on extra-oral radiography, panoramic radiography and digital radiography.</li><li>3- Identify different radiographic carious lesions.</li><li>4- Perform radiographic assessment means of different periodontal lesions.</li><li>5- Interpret radiographs of some teeth-related syndromes, as well as traumatic injuries of teeth and jaws.</li></ol>
<b>4. General and transferable skills</b>	<ol style="list-style-type: none"><li>1- Demonstrate appropriate professional attitudes and behavior in different situations toward patients, colleagues and supervisors.</li><li>2- Provide empathic care for all patients without discrimination.</li><li>3- Regularly assess one's knowledge and skills, and seek additional information to correct deficiencies and enhance performance.</li><li>4- Implement and monitor infection control and environmental safety programs according to current standard</li></ol>



<p><b>4- Course Contents:</b></p>	<ul style="list-style-type: none"> <li>• radiation protection of the patient, operator, personal, and environment</li> <li>• Introduction to DD and description of the lesion             <ul style="list-style-type: none"> <li>• Periapical RL</li> <li>• Pericoronal RL</li> <li>• Solitary well defined RL</li> <li>• Solitary ill-defined RL</li> <li>• Interradicular RL</li> <li>• Multilocular RL</li> <li>• Multi-focal RL</li> <li>• Generalized RL</li> <li>• Mixed RL-RO (contacting teeth)</li> <li>• Mixed RL-RO( not contacting teeth)</li> <li>• RO lesions</li> </ul> </li> <li>• Interpretation and misinterpretation of carious lesions</li> <li>• Interpretation of periodontal diseases</li> <li>• Alternative and specialized imaging modalities (CT. CBCT, MRI and US, scintigraphy and sialography)</li> </ul>
<p><b>5- Teaching and Learning Methods</b></p>	<ul style="list-style-type: none"> <li>• Lectures by PPS presentations</li> <li>• Clinical training:             <ul style="list-style-type: none"> <li>• Demonstrations and videos</li> <li>• Work sheets and surveys</li> <li>• Report back sessions</li> <li>• rotations in radiology department</li> <li>• literature review seminars</li> <li>• Group work, team work, and self-presentation</li> </ul> </li> </ul>
<p><b>6- Teaching and Learning Methods for special needs students</b></p>	<p>-----</p>
<p><b>7- Student Assessment</b></p>	
<p><b>a) Assessment Methods</b></p>	<ul style="list-style-type: none"> <li>• formative quizzes</li> <li>• clinical requirements, and reports</li> <li>• Final Written exam</li> <li>• Final Oral exam</li> <li>• Final clinical exam</li> </ul>

<b>b) Assessment Schedule</b>	<ul style="list-style-type: none"><li>• First midterm exam(week5)</li><li>• Second midterm exam(week10)</li><li>• Practical exam( week 12)</li><li>• Oral exam ( end of semester)</li><li>• Final written exam( end of semester)</li></ul>
<b>c) Weighting of Assessment</b>	<ul style="list-style-type: none"><li>• Midterm written exam (20%)</li><li>• Practical exam (20%)</li><li>• Oral exam (20%)</li><li>• Final written exam (40%)</li></ul>

<b>8- List of References</b>	
<b>a) Course Notes</b>	Course notes available PPS available for the students from the department
<b>b) Essential Books (Text Books)</b>	Oral Radiology, 7th Edition 2014 , Principles and Interpretation By Stuart C. White, DDS, PhD and Michael J. Pharoah, DDS
<b>c) Recommended Books</b>	Essentials of dental radiography and radiology, Eric Waites, 5 <sup>th</sup> ed 2013
<b>d) Scientific periodicals, bulletins, etc.....</b>	Journal of maxillofacial radiology <a href="http://www.joomr.org/">http://www.joomr.org/</a>

**Course Coordinator: prof. Gihan Omar**

**Head of Department: prof. Shahira Elsheiry**

**3/ 2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Orthodontics and Pediatric Dentistry

### Course Specification

1- Basic Information		
<b>Course Title:</b> Psychology	<b>Course Code:</b> 622	<b>Level:</b> 1
<b>Master degree in:</b> Dental public Health and community Dentistry	<b>Credit Hours:</b> 2 Theoretical 2 Practical -	

<b>2- Aim of the course to:</b>	Understand effect of psychological behavior of the patients on dental health
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3- Intended Learning Outcomes of Course (ILO) : By the end of the course, post graduate student should be able to:	
<b>a) Knowledge and understanding :</b>	1. Explain effect of psychological behavior of the patients on dental health
<b>b) Intellectual Skills:</b>	1. Correlate psychological status with dental health
<b>c) Professional and Practical Skills</b>	1. Evaluate the techniques and tools used in behavior management of children 2. Take various psychological decisions in treatment of children
<b>d) General and transferable skills</b>	1. Continue self-learning in both academic and practical fields

<b>4- Course Contents:</b>	Effect of psychological behavior of the patients on dental health (part 2)
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<b>5- Teaching and Learning Methods</b>	<ol style="list-style-type: none"> <li>1. Interactive lectures including discussion and brain storming</li> <li>2. Small groups sessions</li> <li>3. Case study and problem solving</li> <li>4. Demonstration</li> <li>5. Self study</li> <li>6. seminars and presentations</li> </ol>
<b>6- Teaching and Learning Methods for special needs students</b>	-----.
<b>7- Student Assessment</b>	
<b>a) Assessment Methods</b>	Written examination to assess knowledge and understanding.
<b>b) Assessment Schedule</b>	written exam
<b>c) Weighting of Assessment</b>	100 % written exam

<b>8- List of References</b>	
<b>a. Course Notes</b>	Handout of presented seminars
<b>b. Essential Books (Text Books)</b>	McMilan RA. ,Psychology: A Concise Introduction, 2010
<b>c. Recommended Books</b>	
<b>d. Scientific periodicals, bulletins, etc.....</b>	<ul style="list-style-type: none"> <li>• <a href="http://www.pubmed.com">www.pubmed.com</a>.</li> <li>• <a href="http://www.sciencedirect.com">www.sciencedirect.com</a>.</li> </ul>

**Course Coordinator: Prof. Amany Safwat**

**Date: / 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Orthodontics and Pediatric Dentistry

### Course Specification

9- Basic Information		
Course Title: public health and health education	Course Code: 624	Level: 1
Master degree in: Dental public Health and community Dentistry	Credit Hours: 2 Theoretical 2 Practical -	

<p><b>1- Aim of the course to:</b></p>	<ul style="list-style-type: none"> <li>• Understand factors affecting health education services</li> <li>• Enable students to differentiate between environmental and occupational health deal with health of special needs.</li> <li>• Evaluate health care management techniques</li> <li>• Introduce Health education services.</li> <li>• Perform oral health educational programs.</li> <li>• Write reports for SHCN.</li> <li>• Improve Self learning in epidemiological fields</li> </ul>
<p><b>2- Intended Learning Outcomes of Course (ILO) :</b> By the end of the course, post graduate student should be able to:</p>	
<p>a) Knowledge and understanding :</p>	<p>1) identify factors affecting health education services</p> <p>2) match between environmental and occupational health</p>
<p>b) Intellectual Skills:</p>	<p>1) Assess health care management techniques</p> <p>2) Analyze different oral health programs</p>

<p><b>c) Professional and Practical Skills:</b></p>	<p>1) Evaluate methods of health education 2) Write proper reports for children with special needs</p>
<p><b>d) General and transferable skills</b></p>	<p>1) Continue self-learning in academic fields 2) Work as a member or leader of health care team</p>

<p><b>3- Course Contents:</b></p>	<ul style="list-style-type: none"> <li>• Health care management</li> <li>• School health</li> <li>• Health of special needs</li> <li>• Environmental and occupational health</li> <li>• Health educational services</li> <li>• Oral health education programs</li> </ul>
<p><b>4- Teaching and Learning Methods</b></p>	<p>Interactive Lecture with discussion Small group discussion</p>
<p><b>5- Student Assessment</b></p>	
<p><b>a) Assessment Methods</b></p>	<p>Written exam Oral exam</p>
<p><b>b) Assessment Schedule</b></p>	<p>At the end of the course</p>
<p><b>c) Weighting of Assessment</b></p>	<p>60 % written exam final 40 % Oral exam final</p>

<p><b>6- List of References</b></p>	
<p><b>a. Course Notes</b></p>	<p>Department notes</p>
<p><b>b. Essential Books (Text Books)</b></p>	<ul style="list-style-type: none"> <li>• Fundamentals of community dentistry 2nd Edition 2017</li> </ul>

<b>c. Recommended Books</b>	<ul style="list-style-type: none"><li>● Textbook of Community Medicine 2nd Edition 2011</li></ul>
<b>d. Scientific periodicals, bulletins, etc.....</b>	<ul style="list-style-type: none"><li>● <a href="http://www.pubmed.com">www.pubmed.com</a>.</li><li>● <a href="http://www.sciencedirect.com">www.sciencedirect.com</a>.</li></ul>

***Course Coordinator: Prof. Abdelrahim Sholah***

***Date: / 3 /2016***



**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** *Orthodontics and Pediatric Dentistry*

### *Course Specification*

<b>1- Basic Information</b>		
<b>Course Name:</b> forensic medicine 2	<b>Course Code:</b> 626	<b>Level:</b> first part, second semester
<b>Master degree in:</b> Dental public Health and community Dentistry	<b>Credit Hours: 2</b> - <b>Theoretical:</b> 2 - <b>Practical:</b> ---	

#### **Professional information:**

<b>2- Aim of the course:</b>	To provide the postgraduate students with basic scientific knowledge, clinical skills, professional attitude and behavioral skills necessary for proper dealing with medicolegal aspects of wounds and poisoning that will be met during practicing dentistry.
<b>3- Intended Learning Outcomes of Course (ILOs) :</b> <b>By the end of the course, postgraduate student should be able to:</b>	
<b>a) Knowledge and understanding :</b>	3.a.1 <b>classify</b> wounds legally and medico legally. 3.a.2 <b>describe</b> wounds from their medicolegal aspects. 3.a.3 <b>discuss</b> types of wounds. 3.a.4 <b>list</b> mechanisms of death from wounds. 3.a.5. Identify dentistry duty in wounding and poisoning cases. 3.a.6 discuss important poisons to dentistry.
<b>b) Intellectual Skills:</b>	3.b.1 <b>Differentiate</b> between types of wounds. 3.b.2 <b>Relate</b> between the tool and wound type. 3.b.3 match the bite mark with the suspect's dentition 3.b.3 interpret factors affecting the degree of toxicity.
<b>c) Professional and Practical Skills:</b>	3.c.1 identify wound type from its characters. 3.c.2 deal with poisoning cases.

<b>d) General and transferable skills</b>	<p><b>3.d.1 Respect</b> the dignity of the corps.</p> <p><b>3.d.2 Establish</b> effective interpersonal relationship to communicate ideas and</p> <p><b>3.d.3 Communicate</b> effectively with his colleagues and involve them in any ethical problems debate.</p>
<b>4- Course Contents:</b>	<p>Wounds:</p> <ul style="list-style-type: none"> <li>a. Definition, classification, and types</li> <li>b. Duty of dentistry</li> <li>c. Medicolegal description of wounds</li> <li>d. Mechanism of death from wounds</li> </ul> <p>Toxicology:</p> <ul style="list-style-type: none"> <li>e. Definition and classification</li> <li>f. Factors modify poison action</li> <li>g. Duty of dentistry in poisoning</li> <li>h. Management of poisoning</li> </ul>
<b>5- Teaching and Learning Methods</b>	<ul style="list-style-type: none"> <li>- Modified lectures (including discussion)</li> <li>- Case study and Problem solving</li> <li>- Demonstrations</li> <li>- Self-learning</li> </ul>
<b>6- Teaching and Learning Methods for special needs students</b>	<ul style="list-style-type: none"> <li>- Individual learning</li> </ul>
<b>7- Student Assessment</b>	
<b>d) Assessment Methods</b>	<p>Written examination:</p> <ul style="list-style-type: none"> <li>- MCQs</li> <li>- Case study</li> <li>- Short essay</li> <li>- Complete</li> <li>- True or false with explanation</li> </ul>
<b>e) Assessment Schedule</b>	<p>Final written examination: by the end of the first semester</p>
<b>f) Weighting of Assessment</b>	<p>Final written examination: 100 Mark</p>

## 8- List of References

<b>a. Course Notes</b>	Educational Course of Course Coordinator
<b>b. Essential Books (Text Books)</b>	David R. S. and Paul G.S. (2010) Forensic Dentistry, 2 <sup>nd</sup> ed., CRC press, Boca Raton, London, New York.
<b>c. Recommended Books</b>	Saukko P. and Knight B (2014): Knight's Forensic pathology, 3 <sup>rd</sup> ed., ARNOLD London.
<b>d. Scientific periodicals, bulletins, etc.</b>	- <a href="http://www.pubmed.com">http://www.pubmed.com</a> . - <a href="http://sciencedirect.com">http://sciencedirect.com</a>

**Course Coordinator: Prof. Ebraheem Elgendy**

**Date: / 3 /2016**

### Elective courses

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** general supplementary sciences

### *Course Specification*

1- Basic Information		
<b>Course Title:</b> biochemistry	<b>Course Code:</b> ٦٢٣	<b>Level:</b> first or second part
<b>Master degree in:</b> Elective course for all specialities	<b>Credit Hours: Theoretical:...2</b> <b>Practical:...0</b>	

<b>2- Aim of the course:</b>	<ol style="list-style-type: none"> <li>1) Explains the Chemistry and the metabolism of Biological Molecules.</li> <li>2) understand the chemical function of Biomolecules and highlights the importance of individual molecules inside the cell.</li> <li>3) understand the metabolic changes of different molecules inside the body.</li> <li>4) understand the basic principles of errors of metabolism and their reflection on the health of the individual.</li> </ol>
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3- Intended Learning Outcomes of Course (ILO) :	
By the end of the course, post graduate student should be able to:	
<b>a) Knowledge and understanding :</b>	A1- Describe the structure and importance of carbohydrates, lipids, and proteins of medical importance. A2- Describe the metabolic pathways A3- Discuss the principles of metabolic pathways. A4- Point out the importance of vitamins. A5- Demonstrate the basic structure and functions of Immunoglobulins A6- Describe the basic principles of some metabolic errors A7- Discuss the basic principles of molecular Biology

<b>b) Intellectual Skills:</b>	<p>b1- Differentiate between structures of carbohydrates, lipids and proteins.</p> <p>b2- Explain the importance of some molecular biology techniques</p> <p>b3- Explain the role of enzymes in regulation of chemical reactions in the body</p> <p>b4- Differentiate between metabolism in health and in disease</p> <p>b5- Explain the role of vitamin deficiency in development of some diseases</p>
<b>c) Professional and Practical Skills:</b>	<p>C1- Perform basic laboratory tests</p> <p>c2- Identify unknown carbohydrate solution</p> <p>c3- Identify unknown protein solution</p> <p>c4- Detect abnormal constituents of urine</p>
<b>d) General and transferable skills</b>	<p>d1- Work effectively in groups.</p> <p>d2- Exercise leadership when appropriate.</p> <p>d3- Act responsibly in personal and professional relationships.</p> <p>d4- Take responsibility for their own learning and continuing personal and professional development.</p> <p>d5- Act ethically and consistently with high moral standards in personal and public forums.</p>

<b>4- Course Contents:</b>	1	Chemistry and Metabolism of Carbohydrates
	2	Chemistry and Metabolism of Lipids
	3	Chemistry and Metabolism of Proteins and Amino acids
	4	Chemistry of Immunoglobulins
	5	Chemistry of Nucleotides and Nucleic acids
	6	Chemistry of Enzymes
	7	Vitamins
	8	Regulation of blood glucose level and Diabetes Mellitus
<b>5- Teaching and Learning Methods</b>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Practical training</li> <li>• Small group discussion</li> </ul>	

<b>6- Teaching and Learning Methods for special needs students</b>	<ul style="list-style-type: none"> <li>Demonstration &amp; instructive Lessons with regular checkup according to their special needs.</li> </ul>
<b>7- Student Assessment</b>	
<b>a) Assessment Methods</b>	Written examination (short questions, multiple choice)
<b>b) Assessment Schedule</b>	Final written at the end of the course
<b>c) Weighting of Assessment</b>	100% written exam

<b>8- List of References</b>	
<b>a. Course Notes</b>	
<b>b. Essential Books (Text Books)</b>	Lippincott's illustrated Reviews: Biochemistry, 7 <sup>th</sup> edition, 2014
<b>c. Recommended Books</b>	Harper's Illustrated Biochemistry 30 <sup>th</sup> edition, 2015
<b>d. Scientific periodicals, bulletins, etc.....</b>	

**Course Coordinator: Dr. Nagwa Roshdy**

**Date: 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** oral and maxillofacial surgery

### Course Specification

1- Basic Information		
Course Title: medical emergency in dentistry	Course Code: ٦٣٣	Level: first or second part
Master degree in: Elective course for all specialities	Credit Hours: Theoretical:...2 Practical:...0	

2- Aim of the course:	To make the candidates familiar with prevention and management of medical emergencies in dental clinic
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3- Intended Learning Outcomes of Course (ILO) : By the end of the course, post graduate student should be able to:	
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a) Knowledge and understanding :	1- Summarize local anesthetic drugs. 2- Memorize Safe precautions for Dental Chair Anesthesia. 3- Define types of common medical emergencies in dentistry. 4- Identify Resuscitation Council's Guidelines 5- Recognize special demands for Pediatric medical emergencies. 6- Identify emergency drug kit and equipment, and the knowledge to properly use all items.
b) Intellectual Skills:	1- calculate Appropriate dosage of drug related emergencies 2- select patients susceptible to medical emergency

<p><b>c) Professional and Practical Skills:</b></p>	<ol style="list-style-type: none"> <li>1- Manage Airway obstruction.</li> <li>2- manage medical emergencies in dentistry.</li> <li>3- Apply medical emergency drugs</li> <li>4- Perform Basic life support maneuvers</li> <li>5- Examine patients prior to treatment</li> <li>6- Evaluate Laboratory investigations</li> </ol>
<p><b>d) General and transferable skills</b></p>	<ol style="list-style-type: none"> <li>1- Lead a team and work in a team</li> <li>2- Manage time effectively</li> </ol>

<p><b>4- Course Contents:</b></p>	<ul style="list-style-type: none"> <li>• Pharmacology , dosages of emergency &amp; local anesthetic drugs.</li> <li>• Differential diagnosis of Common medical emergencies in dental practice.</li> <li>• Simplified approach for preventing &amp; treatment of medical emergencies</li> <li>• Ambulatory Dental Chair anesthesia.</li> <li>• Pediatric medical emergencies</li> <li>• Medicolegal aspect of medical emergencies in dental practice</li> <li>• Medical equipments needed in dental office</li> <li>• Basic life support maneuvers</li> <li>• Dental sedation and safety issues regarding sedation</li> </ul>
<p><b>5- Teaching and Learning Methods</b></p>	<p>Interactive lectures Discussion. Demonstrations. Brain storming. Role plays</p>



<b>6- Teaching and Learning Methods for special needs students</b>	<ul style="list-style-type: none"> <li>Demonstration &amp; instructive Lessons with regular checkup according to their special needs.</li> </ul>										
<b>7- Student Assessment</b>											
<b>a) Assessment Methods</b>	<ul style="list-style-type: none"> <li>Reflective Student Essays</li> <li>Comprehensive quizzes</li> <li>written Exam</li> </ul>										
<b>b) Assessment Schedule</b>	<table border="1"> <tr> <td>2<sup>nd</sup> week</td> <td><b>Presentation 1</b></td> </tr> <tr> <td>4<sup>th</sup> week</td> <td><b>Assignment 1</b></td> </tr> <tr> <td>10<sup>th</sup> week</td> <td><b>Presentation 2</b></td> </tr> <tr> <td>11<sup>th</sup> week</td> <td><b>Assignment 2</b></td> </tr> <tr> <td>Final exam</td> <td><b>Written exams</b></td> </tr> </table>	2 <sup>nd</sup> week	<b>Presentation 1</b>	4 <sup>th</sup> week	<b>Assignment 1</b>	10 <sup>th</sup> week	<b>Presentation 2</b>	11 <sup>th</sup> week	<b>Assignment 2</b>	Final exam	<b>Written exams</b>
2 <sup>nd</sup> week	<b>Presentation 1</b>										
4 <sup>th</sup> week	<b>Assignment 1</b>										
10 <sup>th</sup> week	<b>Presentation 2</b>										
11 <sup>th</sup> week	<b>Assignment 2</b>										
Final exam	<b>Written exams</b>										
<b>c) Weighting of Assessment</b>	100% written exam										

<b>8- List of References</b>	
<b>a. Course Notes</b>	
<b>b. Essential Books (Text Books)</b>	<b>Elsevier</b> :Medical Emergencies in the Dental Office 7 <sup>th</sup> Edition
<b>c. Recommended Books</b>	<b>Wiley</b> : Basic Guide to Medical Emergencies in the Dental Practice
<b>d. Scientific periodicals, bulletins, etc.....</b>	The American journal of emergency medicine The Journal of Emergency Medicine

**Course Coordinator: Dr. Aktham Adel**

**Date: 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** oral and maxillofacial surgery

### Course Specification

1- Basic Information		
Course Title: implantology	Course Code: ٦٢٩	Level: first or second part
Master degree in: Elective course for all specialties	Credit Hours: Theoretical: 2 Practical: 0	

2- Aim of the course:	<ol style="list-style-type: none"> <li>1) To educate the students about the basics of surgical, biological, prosthetic and periodontal considerations that should be followed during implantation.</li> <li>2) To familiarize the student with different recent treatment modalities of varying difficulties.</li> <li>3) To enable students to detect the causes of implant failure and their management.</li> <li>4) To educate students about the care and maintenance aspect of the implant</li> </ol>
3- Intended Learning Outcomes of Course (ILO) : By the end of the course, post graduate student should be able to:	
a) Knowledge and understanding :	A1- identify the basics of diagnosis with the treatment planning of the badly broken and/or missing teeth for implantation. A2- Recognize the biological and periodontal aspects of the implant. A3- Identify the principles and types of luting cements A4- discuss treatment options for un-restorable and/or missing teeth.
b) Intellectual Skills:	B1- order the steps of implant preparation in order to fulfill biological and periodontal considerations B2- classify properly the parameters of implant success and failure.

<p><b>c) Professional and Practical Skills:</b></p>	<p>C1-Practice the steps of diagnosis, treatment planning, surgical procedures, and follow up of implant cases.</p> <p>c2- Perform properly the steps of implantation taking into consideration the biological and periodontal aspects</p> <p>C3- Perform properly the different steps of prosthetic procedures</p>
<p><b>d) General and transferable skills</b></p>	<p>D1- respect to all patients irrespective to their socioeconomic levels, cultures or religious beliefs</p> <p>D2- Implement infection control policies.</p> <p>D3- Life-long learning</p>

<p><b>4- Course Contents:</b></p>	<p><b>Theory of Osseointegration</b></p>
	<p><b>Armamentarium and Types of implants</b></p>
	<p><b>Surgical Techniques</b></p>
	<p><b>Diagnosis of Peri-implant mucositis &amp; Peri-implant implantitis</b></p>
	<p><b>Treatment of Peri-implant mucositis &amp; Peri-implant implantitis</b></p>
	<p><b>Principles of implant location; prosthetic &amp; anatomical considerations</b></p>
	<p><b>Prosthetic template; construction &amp; uses</b></p>
	<p><b>Types of impression techniques in prosthetic implant dentistry</b></p>
	<p><b>Types of implant supported prosthesis</b></p>
	<p><b>Planning and follow up</b></p>
<p><b>Radiographic assessment and 3D evaluation</b></p>	
<p><b>5- Teaching and Learning Methods</b></p>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Small group discussion</li> </ul>
<p><b>6- Teaching and Learning Methods for special needs students</b></p>	<p>-----</p>

7- Student Assessment	
a) <b>Assessment Methods</b>	Written examination (short questions, multiple choice )
b) <b>Assessment Schedule</b>	Final written at the end of the course
c) <b>Weighting of Assessment</b>	100% written exam

8- List of References	
a. <b>Course Notes</b>	
b. <b>Essential Books (Text Books)</b>	Contemporary implant dentistry, 3 <sup>rd</sup> . ed., Carl Misch, 2007
c. <b>Recommended Books</b>	EUREKA R2: concept, principle, and clinical cases, 1 <sup>st</sup> ed., 2015
d. <b>Scientific periodicals, bulletins, etc.....</b>	

**Course Coordinator: Dr. Nelly Hamouda**

**Date: 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** oral medicine periodontology diagnosis and radiology

### Course Specification

1- Basic Information		
<b>Course Title: Laser applications in dentistry</b>	<b>Course Code: 632</b>	<b>Level:</b> 1 <sup>st</sup> year master degree Elective course
<b>Master degree in:</b> all specialties	<i>Credit Hours: 2 / Theoretical:2 / Practical:0</i>	
<b>2- Aim of the course:</b>	<ol style="list-style-type: none"> <li>1. To demonstrate general understanding of laser use in dentistry</li> <li>2. To improve the health and wellbeing of patients through the proper use of laser technology.</li> <li>3. To overview the research and clinical aspects of the safe and effective uses of lasers in dentistry.</li> </ol>	
3- Intended Learning Outcomes of Course (ILO) :		
By the end of the course, post graduate student should be able to:		
<b>a. Knowledge and understanding :</b>	<ol style="list-style-type: none"> <li>1. Identify the scientific and clinical principles of lasers in dentistry.</li> <li>2. Discuss basic concepts of laser physics and segmentation of wavelengths.</li> <li>3. Explain the nature of light, the light spectrum and laser wavelengths.</li> <li>4. Explain the basic elements of laser - tissue interaction.</li> <li>5. Become familiar with different types of laser used in dentistry</li> <li>6. Identify laser set up, delivery system and power settings, laser applications used in dental soft and hard tissue management.</li> </ol>	
<b>b. Intellectual Skills:</b>	<ol style="list-style-type: none"> <li>1- Make decisions regarding proper laser type, mode, watt, and frequency.</li> <li>2- Predict the wide advantages of using laser in the dental office.</li> </ol>	
<b>c. Professional and Practical Skills:</b>	<ol style="list-style-type: none"> <li>1- Use of lasers through hands-on clinical simulation.</li> <li>2- Apply Laser in dental soft and hard tissue management.</li> <li>3- integrate laser use in treatment successfully</li> <li>4- Use laser safety and infection control in the dental practice.</li> </ol>	

<p><b>d. General and transferable skills</b></p>	<p>1- Assess regularly one's knowledge and skills, and seek additional information to correct deficiencies and enhance performance.</p> <p>2- Implement and monitor infection control and environmental safety programs according to current standards.</p>
<p><b>4- Course Contents:</b></p>	<ul style="list-style-type: none"> <li>• Introduction to the course</li> <li>• Differences between laser and visible light</li> <li>• Differences between laser and x ray</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Laser physics and beam generation</li> <li>• General characters of laser beam</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Lasers in dentistry: uses, advantages, and limitations</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Different types and modes of laser</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• CO2 laser, Properties and advantages</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Diode laser, Properties and advantages</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Nd-YAG laser, Properties and advantages</li> <li>• Low level laser applications</li> <li>• Soft tissue laser procedures</li> <li>• Hard tissue laser procedures</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Laser interaction with biological tissues</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Photo-chemical interaction and its applications</li> <li>• biostimulation</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Photo-thermal interaction and its applications</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Photo-electrical interaction and its applications</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Photo-mechanical interaction and its applications</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Laser safety</li> </ul>
<p><b>5- Teaching and Learning Methods</b></p>	<p>Lectures by PPS presentations</p> <p>Open – discussion lectures</p> <p>Clinical training:</p> <ul style="list-style-type: none"> <li>• Demonstrations and videos</li> <li>• Case studies</li> <li>• Work sheets and surveys</li> <li>• Report back sessions</li> </ul>

<b>6- Teaching and Learning Methods for special needs students</b>	
<b>7- Student Assessment</b>	
<b>a) Assessment Methods</b>	<ul style="list-style-type: none"> <li>• continuous formative quizzes to assess knowledge and understanding</li> <li>• Group work to assess practical skills, team work, and self-presentation</li> <li>• Assignment to assess understanding skills</li> <li>• Final Written examination to assess knowledge and understanding.</li> </ul>
<b>b) Assessment Schedule</b>	<ul style="list-style-type: none"> <li>▪ Assessment 1: first midterm (written/week 5)</li> <li>▪ Assessment 2: group presentation (pps /week 12)</li> <li>▪ Assessment 3: second midterm (written/ week 10)</li> <li>▪ Assessment 4: Final written (week 15)</li> </ul>
<b>c) Weighting of Assessment</b>	Written Examination 100 %
<b>8- List of References</b>	
<b>a) Course Notes</b>	<ul style="list-style-type: none"> <li>• Course notes available</li> </ul>
<b>b) Essential Books (Text Books)</b>	<ul style="list-style-type: none"> <li>• Dental Applications of Advanced Lasers 2004 Edition Jeffrey G. Manni</li> </ul>
<b>c) Recommended Books</b>	<ul style="list-style-type: none"> <li>• Atlas of Laser Applications in Dentistry Coluzzi DJ, Convissar RA. 2007</li> </ul>
<b>d) Scientific periodicals, bulletins, etc.....</b>	<ul style="list-style-type: none"> <li>• ALD academy of laser dentistry periodicals  <a href="http://www.laserdentistry.org">http://www.laserdentistry.org</a> </li> </ul>

***Course Coordinator: prof. Gihan Omar***

***Head of Department: prof. Shahira Elashiry***

***Date: /3 /2016***

## Second part courses

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Orthodontics and Pediatric Dentistry

### *Course Specification*

1- Basic Information		
<b>Course Title:</b> Preventive Dentistry	<b>Course Code:</b> 729	<b>Level:</b> 2
<b>Master degree in:</b> Dental public Health and community Dentistry	<b>Credit Hours:</b> 5 Theoretical 3 Practical 4	

<b>2- Aim of the course to:</b>	<ul style="list-style-type: none"> <li>Differentiate between levels of prevention</li> <li>provide students with knowledge about prevention of dental caries</li> <li>provide students with knowledge about prevention of periodontal diseases</li> <li>Assess caries risk profile for patients through caries indices</li> <li>Be able to construct a research design and choose proper research method</li> <li>Communicate effectively with health professionals</li> </ul>
<b>3- Intended Learning Outcomes of Course (ILO) :</b> <b>By the end of the course, post graduate student should be able to:</b>	
<b>a) Knowledge and understanding :</b>	<ul style="list-style-type: none"> <li><b>a. Describe levels of prevention</b></li> <li><b>b. Identify caries indices</b></li> <li><b>c. Discuss methods of prevention of communicable diseases</b></li> </ul>



<b>b) Intellectual Skills:</b>	<ul style="list-style-type: none"> <li>a) Assess preventive measures for patient</li> <li>b) Choose the suitable caries index</li> <li>c) Construct a research design and choose proper research method</li> </ul>
<b>c) Professional and Practical Skills:</b>	<ul style="list-style-type: none"> <li>a) Evaluate the techniques used in caries prevention</li> <li>b) Evaluate the tools of caries risk assessment</li> </ul>
<b>d) General and transferable skills</b>	<ul style="list-style-type: none"> <li>a) Use preventive technology towards community service</li> <li>b) Communicate effectively with health professionals</li> </ul>

<b>4- Course Contents:</b>	<ul style="list-style-type: none"> <li>• Levels of prevention</li> <li>• Prevention of dental caries</li> <li>• Epidemiology of dental caries</li> <li>• Dental caries indices</li> <li>• Caries risk assessment</li> <li>• Epidemiology of periodontal disease</li> <li>• Prevention of periodontal disease</li> <li>• Prevention of communicable diseases</li> </ul>
<b>5- Teaching and Learning Methods</b>	<ol style="list-style-type: none"> <li>1. Interactive lectures. (including discussions and brain storming)</li> <li>2. Practical demonstration</li> <li>3. Clinical training.</li> <li>4. Requirements.</li> <li>5. Problem solving -Case solving -brain storming</li> <li>6. Self-study (small projects or report /reading materials/online materials/Presentation/seminars)</li> </ol>

6- Student Assessment	
a) Assessment Methods	1. Written examination 2. Oral examination 3. Requirement. ( class work assignment )
b) Assessment Schedule	At the end of the course
c) Weighting of Assessment	150 marks written 50 marks practical 50 marks oral

7- List of References	
a. Course Notes	<ul style="list-style-type: none"> <li>• Power point presentations.</li> <li>○ Hands out.</li> <li>○ Department notes</li> </ul>
b. Essential Books (Text Books)	<ul style="list-style-type: none"> <li>• Fundamentals of community and preventive dentistry 2<sup>nd</sup> edition 2017</li> </ul>
c. Recommended Books	<ul style="list-style-type: none"> <li>• Dentistry for the child and adolescent 10<sup>th</sup> edition 2016</li> </ul>
d. Scientific periodicals, bulletins, etc.....	<p style="text-align: center;"><a href="http://www.pubmed.com">www.pubmed.com</a></p> <p style="text-align: center;"><a href="http://www.Science direct.com">www.Science direct.com</a></p> <p style="text-align: center;"><a href="http://www.blackwell.com">www.blackwell.com</a></p>

**Course Coordinator: Prof. Ossma Elshahawy**

**Head of Department: prof. Yehia Mostafa**

**Date: / 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Orthodontics and Pediatric Dentistry

### Course Specification

Basic Information		
Course Title: Community Dentistry	Course Code: 735	Level: 2
Master degree in: Dental public Health and community Dentistry	Credit Hours: 6 Theoretical 3 Practical 6	

1) Aim of the course:	<ol style="list-style-type: none"> <li>1) To design oral health care programs to benefit individuals and community.</li> <li>2) Apply principles of health education</li> <li>3) Understand pillars of health education.</li> <li>4) Assess gingival and periodontal indices</li> <li>5) Introduce epidemiology and understand sampling and different types of studies</li> <li>6) Perform oral health programs</li> </ol>
<p align="center"><b>2) Intended Learning Outcomes of Course (ILO) :</b> By the end of the course, post graduate student should be able to:</p>	
a) Knowledge and understanding :	<ol style="list-style-type: none"> <li>1) Discuss basics of health education</li> <li>2) Identify gingival and periodontal indices</li> </ol>
b) Intellectual Skills:	<ol style="list-style-type: none"> <li>1) Assess principles of health education</li> <li>2) Choose suitable gingival index</li> <li>3) plan suitable research study</li> </ol>
c) Professional and Practical Skills:	<ol style="list-style-type: none"> <li>a) Apply methods of sampling and different types of studies</li> <li>b) Evaluate oral health programs</li> <li>c) Design dental health program.</li> </ol>

<p><b>d) General and transferable skills</b></p>	<ol style="list-style-type: none"> <li>1) Use oral health programs towards serving the community</li> <li>2) Work effectively as a member or leader in a team</li> </ol>
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<p><b>3) Course Contents:</b></p>	<ul style="list-style-type: none"> <li>• Oral health education</li> <li>• Epidemiology of dental caries and periodontal diseases</li> <li>• Caries indices</li> <li>• Gingival and periodontal indices</li> </ul>
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<p><b>4) Teaching and Learning Methods</b></p>	<ul style="list-style-type: none"> <li>• Interactive lectures. (including discussions and brain storming)</li> <li>• Practical demonstration</li> <li>• Clinical training.</li> <li>• Requirements.</li> <li>• Problem solving -Case solving -brain storming</li> <li>• Self-study (small projects or report /reading materials/online materials/Presentation/seminars)</li> </ul>
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**5) Student Assessment**

<p><b>a) Assessment Methods</b></p>	<ol style="list-style-type: none"> <li>1. Written examination</li> <li>2. Oral examination.</li> <li>3. Requirement. ( class work assignment )</li> </ol>
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<p><b>b) Assessment Schedule</b></p>	<p style="text-align: center;">At the end of the course</p>
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<p><b>c) Weighting of Assessment</b></p>	<p style="text-align: center;">180 marks written exam</p> <p style="text-align: center;">60 marks Oral exam</p> <p style="text-align: center;">60 marks practical exam</p>
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<b>6) List of References</b>	
<b>a. Course Notes</b>	<ul style="list-style-type: none"> <li>○ Power point presentations.</li> <li>○ Hands out.</li> <li>○ Department notes</li> </ul>
<b>b. Essential Books (Text Books)</b>	<ul style="list-style-type: none"> <li>• Oxford Of Public Health 5th edition 2011</li> </ul>
<b>c. Recommended Books</b>	<ul style="list-style-type: none"> <li>• Community Health Education 3<sup>rd</sup> edition 2009</li> </ul>
<b>d. Scientific periodicals, bulletins, etc.....</b>	<p style="text-align: center;"><a href="http://www.pubmed.com">www.pubmed.com</a></p> <p style="text-align: center;"><a href="http://www.Science direct.com">www.Science direct.com</a></p> <p style="text-align: center;"><a href="http://www.blackwell.com">www.blackwell.com</a></p>

**Course Coordinator:Prof. Ossma Elshahawy**

**Head of Department:prof. Yehia Mostafa**

**Date: / 3 /2016**

**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** Orthodontics and Pediatric Dentistry

### Course Specification

1) Basic Information		
Course Title: Preventive Dentistry	Course Code: 730	Level: 2
Master degree in: Dental public Health and community Dentistry	Credit Hours: 5 Theoretical 3 Practical 4	

2) Aim of the course to:	<ul style="list-style-type: none"> <li>• Provide students with knowledge about prevention of periodontal diseases</li> <li>• Provide students with knowledge about prevention of malocclusion</li> <li>• Provide students with knowledge about prevention of oral cancer</li> <li>• Identify methods of prevention of traumatic injuries.</li> <li>• Differentiate between levels of prevention of oral habits</li> <li>• Differentiate between needs and demand</li> </ul>
3) Intended Learning Outcomes of Course (ILO) : By the end of the course, post graduate student should be able to:	
a) Knowledge and understanding :	<ul style="list-style-type: none"> <li>a) Identify methods of prevention of traumatic injuries.</li> <li>b) Discuss prevention of oral cancer</li> <li>c) Identify preventive methods for occlusal abnormalities</li> </ul>
b) Intellectual Skills:	<ul style="list-style-type: none"> <li>a) Differentiate between group practice and teamwork</li> <li>b) Assess risks of oral cancer</li> </ul>

<p><b>c) Professional and Practical Skills:</b></p>	<p>a) Manage different methods for preventing traumatic injures b) Evaluate the techniques used in malocclusion prevention</p>
<p><b>d) General and transferable skills</b></p>	<p>a) Use preventive technology towards serving the professional practice b) Manage time effectively</p>

<p><b>4) Course Contents:</b></p>	<ul style="list-style-type: none"> <li>• Prevention of traumatic injures</li> <li>• Prevention of oral cancer</li> <li>• Prevention of occlusal abnormalities</li> <li>• Group practice and team work</li> <li>• Needs and demands</li> <li>• Organization of dental care</li> <li>• Indices of periodontal disease</li> <li>• Prevention of oral habits</li> <li>• Oral health care for orthodontic patients</li> </ul>
<p><b>5) Teaching and Learning Methods</b></p>	<ul style="list-style-type: none"> <li>• Interactive lectures. (including discussions and brain storming)</li> <li>• Practical demonstration</li> <li>• Clinical training.</li> <li>• Requirements.</li> <li>• Problem solving -Case solving -brain storming</li> <li>• self-study (small projects or report /reading materials/online materials/Presentation/seminars)</li> </ul>
<p><b>6) Teaching and Learning Methods for special needs students</b></p>	<ul style="list-style-type: none"> <li>• Direct observation.</li> <li>• Individual teaching.</li> <li>• Hands on training</li> </ul>
<p><b>7) Student Assessment</b></p>	
<p><b>a) Assessment Methods</b></p>	<ul style="list-style-type: none"> <li>• Written examination</li> <li>• Oral examination</li> <li>• Requirement. ( classwork assignment )</li> </ul>
<p><b>b) Assessment Schedule</b></p>	<p><b>At the end of the course</b></p>

<b>c) Weighting of Assessment</b>	<b>150 marks written</b>  <b>50 marks practical</b>  <b>50 marks oral</b>
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<b>8) List of References</b>	
<b>a. Course Notes</b>	<ul style="list-style-type: none"> <li>• Power point presentations.</li> <li>○ Hands out.</li> <li>○ Department notes</li> </ul>
<b>b. Essential Books (Text Books)</b>	<ul style="list-style-type: none"> <li>• Dentistry for the child and adolescent 10<sup>th</sup> edition 2016</li> </ul>
<b>c. Recommended Books</b>	<ul style="list-style-type: none"> <li>• Fundamentals of community and preventive dentistry 2<sup>nd</sup> edition 2017</li> </ul>
<b>d. Scientific periodicals, bulletins, etc.....</b>	<p style="text-align: center;"><a href="http://www.pubmed.com">www.pubmed.com</a></p> <p style="text-align: center;"><a href="http://www.Science direct.com">www.Science direct.com</a></p> <p style="text-align: center;"><a href="http://www.blackwell.com">www.blackwell.com</a></p>

**Course Coordinator: Prof. Ossma Elshahawy**

**Head of Department: prof. Yehia Mostafa**

**Date: / 3 /2016**



**University:** Future University in Egypt.

**Faculty:** Faculty of Oral and Dental Medicine

**Department:** *Orthodontics and Pediatric Dentistry*

### *Course Specification*

Basic Information		
Course Title: Community Dentistry	Course Code: 736	Level: 2
Master degree in: Dental public Health and community Dentistry	Credit Hours: 6 Theoretical 3 Practical 6	

1) Aim of the course to:	<ul style="list-style-type: none"> <li>• Apply the essential knowledge and skills in community dentistry</li> <li>• Perform oral health programs</li> <li>• Differentiate between caries activity tests</li> <li>• Apply caries risk profile of patient</li> <li>• Evaluate evidence based dentistry</li> </ul>
2) Intended Learning Outcomes of Course (ILO) : By the end of the course, post graduate student should be able to:	
a) Knowledge and understanding :	1) Explain caries risk profile of patient 2) Discuss basics and principles of evidence based dentistry
b) Intellectual Skills:	1) Analyze different caries risk assessment tools 2) Construct oral health programs
c) Professional and Practical Skills:	1) Discover caries risk of patients 2) Manage different cases caries management

<p>d) <b>General and transferable skills</b></p>	<p>1) Use oral health programs towards serving the community</p> <p>2) Communicate effectively with health professionals</p>
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<p><b>3) Course Contents:</b></p>	<ul style="list-style-type: none"> <li>• Oral health programs</li> <li>• Caries risk assessment</li> <li>• Caries risk assessment tools</li> <li>• Caries activity tests</li> <li>• Evidence based dentistry</li> </ul>
<p><b>4) Teaching and Learning Methods</b></p>	<ul style="list-style-type: none"> <li>• Lecture with discussion</li> </ul>
<p><b>5) Student Assessment</b></p>	
<p>a) <b>Assessment Methods</b></p>	<p>Written examination</p>
<p>b) <b>Assessment Schedule</b></p>	<p>At the end of the course</p>
<p>c) <b>Weighting of Assessment</b></p>	<p>180 marks written exam</p> <p>60 marks Oral exam</p> <p>60 marks practical exam</p>

<p><b>6) List of References</b></p>	
<p>a. <b>Course Notes</b></p>	<p>Department notes</p>
<p>b. <b>Essential Books (Text Books)</b></p>	<p>Community Health Education and Promotion 2<sup>nd</sup> edition 2002</p>
<p>c. <b>Recommended Books</b></p>	<p>Health Behavior Change 3<sup>rd</sup> edition 2008</p>
<p>d. <b>Scientific periodicals, bulletins, etc.....</b></p>	<p><a href="http://www.pubmed.com">www.pubmed.com</a></p> <p><a href="http://www.Science direct.com">www.Science direct.com</a></p> <p><a href="http://www.blackwell.com">www.blackwell.com</a></p>

***Course Coordinator: Prof. Ossma Elshahawy***

***Head of Department: prof. Yehia Mostafa***

***Date: / 3 /2016***