Template for Master Degree
Restorative Dentistry

Faculty (s) : Dentistry

Department : Operative Dentistry Department

A-Basic Information

1-Programme Title: Master degree of Restorative Dentistry
2-Departments (s): Operative dentistry,
3-Coordinator: Dr. Khalid Abd El Wahab Ahmed Ali
4-External Evaluator(s): Prof. Dr. Mohamed Abd El Mohsen
5-Last Date of Programme Specification Approval: 8 March.2008

B-Professional Information

1-Programme aims:

The Operative Dentistry Graduate Program has been designed to provide each graduate student an opportunity to have a choice of reaching several professional aims include

1) Train the candidate with the development and refinement of skills in advanced techniques of operative dentistry
2) Learn the graduate student with the latest materials and procedures in bonding technology and integrate them according to the philosophy of esthetics.
3) Provides the opportunity to gain experience in teaching and research in preparation for an academic career in Operative Dentistry.
4) Expand knowledge of the scientific basis for various treatment options and be able to integrate theoretical and practical knowledge in respect of the management of adult patients.
5) Develop a research protocol, conduct the research, and report the findings in the form of a thesis.

2-Intended Learning Outcomes (ILOs)

Knowledge and understanding
a. Program permitted the smooth integration of pre-clinical concepts into the clinical applications with students receiving an evidence based preclinical and clinical education.
b- Students gain an understanding of the fundamentals about methodology and the knowledge necessary for

- Foundational principles of conservative restorations and restorative materials;
- Dental caries diagnosis; Caries risk assessment and caries management;
- Non-carious cervical dental lesions;
- Instruments and equipment for hard tissue and materials cutting and removal;
- Restorative dental materials (amalgam - resin composite - glass ionomer cement - dental ceramic - laboratory-processed resin composite);
- Retention and adhesion of dental restorations - Mechanical, micromechanical and chemical aspects.
- Pulp protection.
- Conception of conservative dentistry.
- Fundamentals of occlusion

C - To comprehend the facts and principles involved in the Clinical Protocol

d- To reinforce previous knowledge gained in the undergraduate courses.

e- To update the students’ information

Self learning

1- Develop a research protocol, conduct the research, and report the findings in the form of a thesis.
2 - Be familiar with principles of Adhesion & Bonding.
3- Recognize basics of esthetic in dentistry.
4- Identify concepts of conservation of tooth structure
5- Categorize different lesions that might affect the hard tooth structures.
6- Recognize occlusal pattern and occlusion disturbance of the patients.
7- Identify patients caries risk assessment.
8- Categorize the failure modes of different restorative materials
9- File advantages and disadvantages of a given procedure.
10- Describe advanced modalities of caries detection and diagnosis
11- Recognize methods of occlusal analysis.
12- List new instruments and equipment for cutting of tooth structure
13- Recognize programs for caries control and prevention
B-Intellectual Skills
1- Differentiate carious and non carious defects.
2- Design a full treatment plan
3- Identify different types of carious lesions
4- Differentiate between low and high risk patient and be able to establish correct treatment plan accordingly
5- Compare between restorative materials and select the indicated material for each clinical situation.
6- Decides the failure mode of different restoration
7- Differentiate between the causes for each failure mode.
8- Design and analyze the esthetic elements.
9- Set an appropriate follow up program

C-Professional and Practical Skills
1- Analyze a prearranged set of data concerning a patient's medical and dental history for appropriate diagnosis.
2- Write a proper treatment plan and educate patients about their dental needs.
3- Design a cavity, based on the biological, mechanical and esthetic fundamentals.
4- Apply the essentials of conservative approaches
5- Relate the natural and restorative esthetics
6- Master the esthetic elements.
7- Evaluate the occlusal harmonies of the patient’s opposing teeth.

D-General and Transferable Skills
1- Demonstrate correct handling of equipment, procedures and restorative materials.
2- Exhibit proper designing of conservative cavities and treatment modalities.
3 - Able to inspect the clinical status of the oral cavity with regard to soft tissues, oral hygiene, active and arrested carious lesions and restorations using proper the tools.

e- Attitude

1- Candidates should show complete compliance with all regulations of the program.
2- Candidates should fulfill the required requirements in both the theoretical and practical parts.
3- Candidates should show a full understanding of the infection control measures in the clinics.
4- Candidates should reveal a positive attitude with their mentors.
5- Positive interaction with the scientific meetings and literature seminars.
6- Be aware with the ethics and rules regulating their treatment plan of the patients

3-Academic Standards

3a-External References for Standards ( Benchmarks)

**Textbooks**
- Sturdevant’s *The Art & Science of Operative Dentistry. 5th Edition*
- *Fundamentals of operative dentistry A Contemporary approach 3rd Ed*
- *Textbook of Operative Dentistry, Baum, Philips, Lund, 3rd edition*
- *Adhesion the silent revolution in dentistry*
- *Management and preservation of hard tooth structures*
- *Metal free restorations*
- *Esthetics in Dentistry*
- *Bleaching techniques*
- *Functional occlusion*
- *Selection of restorative materials*

**Periodicals**
- *Journal of Operative Dentistry*
- *Journal of Dental Research*
- *Dental Materials Journal*

b-Comparison of provision to External References

4- Curriculum Structure and Contents

4.a-Programme duration lasted for at least two years, and consists of two parts.
4.b- Programme structure:

**The first part:** The study lasted for ten months started from January till October.
During the first year, students attend classes in the basic dental sciences and medical courses.
The exam of the first part is hold on **December**
Then the student prepare thesis for partial fulfillment of the requirement for the master degree

**The Second part** comprises courses about the basics of operative dentistry, advanced courses of advanced courses of direct and indirect tooth colored and non tooth colored restoration, Innovative methods of diagnosis of dental caries and the materials science available for cavity restoration bleaching and adhesion. Students learn how to perform an aesthetic evaluation on a patient with specific emphasis on micro- and macro aesthetic zones. In addition, there is a focus on smile design with specific emphasis on midline discrepancies, facial form, tooth size and shape.
Up to date training clinical courses in treatment of carious and non carious lesions, treatment of teeth discoloration and deformities.
The exam of the second part is hold on **April and November**

5- Program Courses

<table>
<thead>
<tr>
<th>First part Courses:</th>
<th>Lecture</th>
<th>Practical</th>
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</thead>
<tbody>
<tr>
<td>Oral pathology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Oral Histology &amp; Embryology</td>
<td>2</td>
<td>2</td>
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<tr>
<td>General Anatomy</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Oral Microbiology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Computer &amp; Statistics</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>General Physiology</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Oral x ray</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Dental biomaterials</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Instrumental analysis</td>
<td>1</td>
<td>2</td>
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<table>
<thead>
<tr>
<th>Second part Courses:</th>
<th>Lect.</th>
<th>Practical</th>
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<tbody>
<tr>
<td>Operative Dentistry</td>
<td>2</td>
<td>4</td>
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<tr>
<td>Fixed Prosthodontic</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Endodontics</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>occlusion</td>
<td>1</td>
<td>2</td>
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6-Programme Admission Requirements

The selected postgraduate students must have Bachelor’s Degree of Oral and Dental Medicine with at least score of Good.

- Also, it is determined on the grade obtained in Operative dentistry course during undergraduate courses. Good is the minimal required score per each year.
- Faculty council laid certain principals for selection of the postgraduate students.

7-Regulations for progression and program completion

- Student must fulfill requirements required for completion of the program. Students must attend at least 75% of practical/clinical sessions of each course. Students who fail to meet this minimal percent of attendance may be prevented from attending exam in this specific course based on department council recommendation and decision of faculty council.
- To progress to the second part, student must pass in all the courses of the first part. The first part exam is hold twice per year; in April and November. Also, the second part exam is hold twice per year; April and November. The student has three chances for passing the first part exam.

In the evaluation of postgraduate student performance, the following letter grades are used:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Minimum Percentage</th>
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<tbody>
<tr>
<td>Excellent</td>
<td>≥ 85%</td>
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<tr>
<td>Very good</td>
<td>≥ 75% - less than 85%</td>
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<tr>
<td>Good</td>
<td>≥ 65% - less than 75%</td>
</tr>
<tr>
<td>Fair</td>
<td>≥ 60% - less than 65%</td>
</tr>
</tbody>
</table>

- In order that a student passes in a course, his grades should be above the percent for passing provided that he gets at least 60% of the total exam grades. A course in which a grade of less than 60% is received must be repeated at the discretion of the department. The grade in the repeated course, whether it is higher or lower than the original grade, replaces the original grade with grade fair 60%.
- All failing and incomplete grades must be removed before a certificate is conferred. Further, students must demonstrate clinical competency in all areas of patient management and treatment. Any student who fails to meet these academic standards in a given semester may not be permitted to pass the exam.
- A student who is absence in the exam with acceptable excuse is awarded the grade earned in the reset exam.

Exams
Examinations take the form of written papers, oral, practical and clinical examinations, assessment of coursework, or a combination of these methods.