



Mansoura University
Faculty of Dentistry
Department of Conservative



COURSE SPECIFICATION

**Master in Esthetic and Restorative
Dentistry**
(Taught Postgraduate Program)

**Course Director: Prof. Salah Hasab Mahmoud,
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Course Coordinator: Dr. Ashraf Ibrahim Ali,
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2014/2015



**Mansoura University
Faculty of Dentistry
Conservative Dentistry Department**

Division of Operative Dentistry Academic Year 2014/2015

Course Purpose

This Three-years taught postgraduate program (TPG) offers advanced education in the recent topics of esthetic and operative dentistry. The program provides a comprehensive training on the recent restorative techniques, minimally invasive dentistry concepts, as well as the clinical application of the recent research outcome in the field of restorative dentistry. The program provides a chance to develop both clinical and research skills of post graduate student (PGS) in the field of restorative dental sciences. The candidate will conduct a research project and write a thesis about one of the recent topics in restorative dentistry.

Aim

The scientific content of this program aims to develop the clinical skills of the participants, which will subsequently reflect on the level of service that they provide to their patients. By the end of this TPG program, candidate should be able to understand the recent advances in adhesive and esthetic dentistry. Moreover, PGS will be able to present his/her clinical cases in an efficient academic way. The candidate also will learn the basic skills of academic research and scientific writing. The department will encourage the participants to present their case reports and research outcome in one of the local, regional or international dental conferences.

Clinical course, progress and development

- ❖ PGS will be divided into small groups, each will be supervised by the full-time clinical Assistant-, Associate- and full- professors according to their schedule in the clinics.

- ❖ A clinical case from each group will be presented in the department scientific meeting (every fore night). The PGS will gain the skills of presentation, discussion and problem solving during the meeting.

- ❖ Problem-based learning method will be applied throughout the coursework and students will have a journal club on recent scientific topics to develop their analytical skills.

- ❖ The clinical course will demonstrate the ideal treatment modalities of complicated cases. Furthermore, it will train the participant in doing a full oral rehabilitation of certain cases with collaboration with other departments in the faculty.

➤ Clinical requirements of the program (Operative Division)

Category	Specifications		Requirements		
			Number	Unit	
Esthetic Cases	Diastema closure		3	Case	
	Bleaching	Vital	In-office	3	Case
			Dentist-supervised (Home)	1	Case
		Non-vital	1	Case	
	Laminate veneers	Direct	8	Tooth	
		Indirect	1	Case	
Restorative Cases	Management of incipient carious lesions through a medical model		4	Case	
	Inlays		3	Tooth	
	Onlays		3	Tooth	
	Posterior tooth-colored restorations		12	Tooth	
	Anterior tooth-colored restorations		16	Tooth	
	Complex amalgam restorations		12	Tooth	
	Restoration of endodontically-treated teeth		4	Tooth	
	Treatment of root caries		6	Tooth	
	Full mouth rehabilitation case		1	Case	

➤ Attendance

- The PGS should attend at least 75% of the classes and clinical sessions
- Each PGS group should present at least one case in the departmental scientific meeting (every fore night)
- The treatment plan and restorative steps should be approved by one of the full-time staff in the student's logbook
- The departmental council will determine supervisors for each candidate to supervise his research project and write the annual progress report
- Each should present at least 2 seminars on recent topics in either of the departmental research meetings or the journal club.

➤ **Examination System**

- The candidate should pass the written, practical and oral examinations of first basic science part, which held at the end the first year of the program
- The candidate should successfully pass his/her master thesis oral defense exam.
- The candidate should pass the written, Clinical and Oral of the second part- specialty exams after passing the oral defense.

Also, the examination committee should be satisfied with the candidate logbook and clinical performance during the whole program as part of the evaluation.

➤ **Grading System (For Operative Branch)**

Examination Part	Marks
Written Exam	80
Clinical Exam	100
Oral Exam	55
Total	235

Academic Grading System in Mansoura University	
Percent	Qualification
85-100	Excellent
75-84	Very Good
65-74	Good
50-64	Acceptable
30-49	Weak
0-29	Very Weak

➤ **Participant evaluation sheets**

Towards the end of the program each candidate have the opportunity to comment confidentially on various aspects, in an anonymous evaluation sheets. The course coordinator will review the student's

sheets and write a report, which will be submitted to the course director and the chairman of the department.

Program content and learning objectives (Operative Branch)

Week	Topic	Description	Objectives
1-3	Evidence based Dentistry	<ul style="list-style-type: none"> • Definition and importance • How to read a scientific manuscript • Types of Review articles • Systematic review and meta-analysis • Narrative review • Rationale of the study • Null hypothesis 	This section is very important to PGS and will help them in preparing their dissertation

4-6	Thesis writing	<ul style="list-style-type: none"> • How to write a research proposal • Contents of thesis • Research gaps 	This section is very important to PGS and will help them in preparing their dissertation
7-10	Minimal Invasive Dentistry (MID)	<ul style="list-style-type: none"> • Philosophy • Principals • Recent treatment protocols • Recent application of MID • Micro dentistry Era 	Candidate will have an idea about the influence of MID philosophy on the 'conventional' concepts and principals
11-13	Cariology and recent caries Removal Methods	<ul style="list-style-type: none"> • Etiology • Histopathology • Caries Risk Assessment • Caries prevention • Recent Caries Removal methods (Chemomechanical caries removal, Air abrasion, Laser ablation and Sonic oscillating systems) 	Candidate should know the recent advances in caries removal methods and how to differentiate between Caries-affected and Caries-infected dental tissues.
14-16	Management of Incipient Carious lesions	<ul style="list-style-type: none"> • Diagnosis • New classification of caries including (ICDAS system) • Recent medical treatment (remineralization protocols) • Conservative surgical treatment models 	Candidate should be aware of the recent medical treatment models and how to achieve maximum conservation of tooth structure
17-19	Management of deep Carious lesions	<ul style="list-style-type: none"> • Diagnosis • Stepwise caries excavation • Partial caries removal concept • Marginal seal 	Candidate should has an idea about the ideal methods of dealing with caries-infected tissues at deep dentin zones, where there is high risk of injuring the pulp tissue
20-21	Management of non-carious lesions	<ul style="list-style-type: none"> • Definition • Etiology • Clinical tips • Treatment 	Candidate should have an idea about the non-carious lesion which affect dental hard tissues and how to restore

22-25	Adhesion in Operative Dentistry	<ul style="list-style-type: none"> • Adhesion to Enamel and Dentin • Smear layer • Different approaches for dealing with the smear layer • Classification of dental adhesives • Hybrid layer • Resin Modified GIC adhesives • Luting cements • Extended uses of dental adhesives 	Candidate will know the nature of resin/tooth interface and the recent topics in adhesive dentistry
26-29	Tooth- colored Restorations	<ul style="list-style-type: none"> • Direct <ul style="list-style-type: none"> ▪ Resin composites restorations ▪ Glass Ionomer Cement restorations • Indirect (Inlays & Onlays) 	
30-35	Esthetics in Operative Dentistry	<ul style="list-style-type: none"> • Esthetic Formulas and ideal proportions of face and teeth • Smile analysis • Macro- and Micro-abrasion • Dental Bleaching • Laminate veneers 	Candidate will know how to design his/her patient smile and the factors that influence the patient esthetics. Furthermore, this section will highlight the recent esthetic treatment modalities.
36-37	Dental Biomaterials and their clinical use in Restorative Dentistry	<ul style="list-style-type: none"> • Biocompatibility • Mechanical properties • Fundamentals of selection of the ideal restorative material 	Candidate will has an idea about the composition, properties and clinical use of different restorative materials
38-39	Management of Badly Broken teeth	<ul style="list-style-type: none"> • Vital teeth • Non-vital teeth 	Candidate will learn the recent techniques in conservation and support the remaining tooth structure
40	Indirect Cast metal restorations		
41-45	Laser in Operative	<ul style="list-style-type: none"> • Physics of Light 	

	Dentistry	<ul style="list-style-type: none"> • Characteristics of LASER • Ablation of dental tissue • Laser applications in operative dentistry 	
46	Management of dentin hypersensitivity	<ul style="list-style-type: none"> • Definition • Etiology • Treatment 	Candidate will know how the causes of dentin hypersensitivity and how to overcome this problem.
47	Geriatric Dentistry	<ul style="list-style-type: none"> • Target group • Age changes • Management 	

Reading list

The problems, which will be discussed in the monthly departmental journal club, are very important to develop communication and analytical skills of the candidates.

The latest editions of the following books are useful.

- B Kidd, EAM, Pickards Manual of Operative Dentistry. Oxford Medical Publications
- AJE Qualtrough, JD Satterthwaite, LA Morrow, PA Brunton, Principles of Operative Dentistry, Blackwell Publishing
- Robert G. Craig, John M. Powers, Restorative Dental Materials, Mosby, Inc.
- James Summitt, J Williams Robbins, Richard Schwartz, Jose dos Santos, Fundamentals of Operative Dentistry A Contemporary Approach, Quintessence Publishing Co, Inc
- Heymann H, Swift EJ, Ritter AV, Sturdevant CM. Sturdevant's art and science of Operative Dentistry. 6th edn. St. Louis, Mo.: Elsevier/Mosby, 2013
- Eliades G, Watts DC, Eliades T. Dental hard tissues and bonding : interfacial phenomena and related properties. Inn: Van Landuyt K, De Munck J, Coutinho E, Peumans M, Lambrecht P, Van Meerbeek B. Bonding to dentin: smear layer and the process of hybridization. Berlin ; New York: Springer, 2005

- International Caries Detection and Assessment System (ICDAS) co-ordinating committee . ICDAS-II. Available from: <https://www.icdas.org/home>
- Ricketts D, Bartlett DW. Advanced Operative Dentistry : a practical approach. Edinburgh ; New York: Churchill Livingstone Elsevier.

Course Coordinator

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Full-time Departmental staff (Operative Devision):

- Prof. Salah Hasab Mahmoud (Professor)
- Prof. Hanan Abdelrazik Hegazi (Professor)
- Dr. Nadia Mohamed Zaghoul (Associate Professor)
- Dr. Ashraf Ibrahim Ali (Assistant Professor)
- Dr. Hamdi Hosni Hamama (Assistant Professor)

Course Director and Chairman of the Department

Prof. Salah Hasab Mahmoud, Professor in Operative Dentistry
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