

Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Applied Dental Sciences
2013/2014

“Ounce of prevention worth a pound of cure”

| Course Information | |
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| Course Title | Preventive Dentistry |
| Course Number | ADS 447 |
| Prerequisites | ADS 303 |
| Course Website | - |
| Instructors | Suhair R. Obeidat & Reem Tubaishat <u>Theoretical</u> Part Suhair R. Obeidat <u>Practical</u> Part |
| Office Location | Faculty of Applied Medical Sciences – 2 nd floor |
| Office Phone | 02/ 7201000 ext. (26885) |
| Office Hours | |
| E-mail | saobeidat@just.edu.jo |
| Credit Hours | 2 (1 theory, 1 practical) |
| Course time and Location | |
| Teaching Assistant | Abd Almalek Tabanjeh |
| Course Description | |
| <p>This course will introduce the ADS students to the current knowledge in the prevention of dental diseases and the dental hygienists' important role in this field. The course will cover the dental preventive strategies that could be applied to prevent dental diseases and problems such as dental caries, periodontal diseases, malocclusion, etc. The practical part will be an application of the theoretical knowledge given in the lectures, either by seeing clinical slides, demonstrations, group discussions, or practice on partners. Practical exam will be assigned later</p> | |

| Text Book | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Clinical practice of the dental hygienist |
| Author(s) | Wilkins, E |
| Publisher | Philadelphia, Lea and Febiger |
| Year | 1999 |
| Edition | 8 th |
| Book Website | - |
| References | <ol style="list-style-type: none"> 1. Geurink, K. V. (2002). <u>Community oral health practice for the dental hygienist</u>. 1st ed., Philadelphia, Pennsylvania, W.B. Saunders Company 2. Darby, M. L. (2002). <u>Mosby's comprehensive review of dental hygiene</u>. 5th ed., St. Louis, Missouri, Mosby, Inc. 3. Jong's community dental health (available in the library) 4. Handouts given by the instructor |

| Assessment Policy* | | |
|---------------------------|--------------------------|---------------|
| Assessment Type | Expected Due Date | Weight |
| Theoretical part | | 50% |
| First Exam | | 15% |
| Second Exam | | 15% |

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| Final Exam - theoretical | Week 16 | 20% |
| Lab work | | 50% |
| Oral Hygiene instructions and plaque control-presentation | | 10% |
| Nutritional counseling | | 10% (part of final practical marks) |
| Mouth guard fabrication | | 5% |
| Educational aid material | | 15% |
| Final Exam -practical | Week 15 | 10% |

**Subjected to change according to modifications that may occur during the semester*

| General Course Objectives | Weights |
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| 1. Define preventive dentistry, dental health education, patient education and motivation, and learning | 5% |
| 2. Describe the three levels of prevention | 5% |
| 3. Discuss the role of the dental hygienists in dental disease prevention and oral health promotion | 5% |
| 4. Discuss public health career options for dental hygienists | 20% |
| 5. Discuss the benefits of primary prevention programs, including fluoridation, sealants, and oral health education | 10% |
| 6. Discuss effective learning and teaching principles that could be applied to educate patients about dental diseases and dental preventive strategies | 10% |
| 7. Explain the role of plaque control in preventing dental diseases | 5% |
| 8. Identify effective diet analysis and counseling principles | 5% |
| 9. Describe the strategies to prevent oral mucosal lesions and orofacial traumas and injuries such as wearing mouth-guards for those practicing sports | 5% |
| 10. Describe the importance of community water fluoridation as a public health measure | 10% |
| 11. Identify smoking as a risk factor for many dental diseases and explain the interventions that could be applied to help a client stop smoking | 10% |
| 12. Discuss the concepts of preventing malocclusion | 10% |

| Teaching & Learning Methods |
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| Lectures, group discussion, homework assignments, reading assignments, lab demonstration and practice, handouts |

| Related Objective(s) | Learning Outcomes |
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| 1 | Correctly define preventive dentistry |
| 1, 2, 7, 8 | Mention examples of every level of dental prevention |
| 3 | Appreciate role of DH in preventing dental diseases and promoting oral health |

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| 3, 4 | Discuss career options of DH in dental public health |
| 5, 8, 10 | Indicate examples of preventive programs that could be applied in the community to prevent dental diseases |
| 6 | Discuss effective learning principles that could be utilized to educate individuals and public about oral health |
| 7 | Discuss role of plaque as the main etiologic factor to dental and periodontal diseases and the importance of plaque control in preventing dental diseases |
| 7 | Mention mechanical and chemical methods of plaque control such as brushing, flossing, auxiliary aids, etc. |
| 9 | Mention examples of preventive measures that could be utilized to prevent oral mucosal lesions and orofacial traumas |
| 12 | Mention examples of preventive measures that could be utilized to prevent malocclusion |
| 10 | Discuss mechanisms of fluoride in preventing dental caries |
| 11 | Understand how smoking could be a risk factor for oral cancer and other dental diseases |
| 11 | Discuss 4 As in smoking cessation program |

Specific Course Objectives

Week One

Orientation and introduction into the course

Week Two

1. Define preventive dentistry, dental health education, patient education and motivation, and learning
2. Explain the 3 levels of prevention (primary, secondary, and tertiary) and give examples on each level
3. Discuss the dental hygienist role as oral health care provider in preventing dental diseases
4. Define 6 roles of dental hygienists to determine how they relate to community oral health practice
5. Define patient motivation and its importance in patient education success
5. Explain the sequential steps in learning ladder or decision-making continuum
6. Discuss instructional and learning principles that a health care educator must considered to facilitate learning
7. Describe the components of health belief model and its use in explaining and predicting individual's health behaviors and acceptance of health recommendations

Week Three

1. Define dental plaque
2. Identify plaque control interventions that could be used by patient at home to prevent and control oral infection including tooth brushing, flossing, interdental auxiliary aids, and mouth washes/rinses.
3. Explain tooth brushing guidelines that must be mentioned to the patient to perform effective tooth brushing technique including brushing sequence, amount (duration), and frequency.
4. Describe procedure of tooth brushing methods including bass/sulcular, modified bass, stillman, modified stillman, charters, roll/rolling stroke, vertical, horizontal, and circular method and indicate the indications of each method (**student presentation**)
5. Discuss the importance of using disclosing agents for patient education
6. Demonstrate the correct flossing technique (**student presentation**)
7. Apply learning and teaching principles during patient oral home care education

Weeks Four and Five

1. Define concept of nutritional counseling

2. Identify nutritional problems that result from either over consumption of nutrients (malnutrition) or insufficient consumption (nutrient deficiency)
3. List the oral health dietary guidelines
4. Explain assessment /data collection methods on food intakes (nutritional screening questionnaire, one day (24 hrs) dietary recall, and food record diary (3-7 days)
5. Discuss and use Food Guide Pyramid to analyze and evaluate food intake
6. Analyze and evaluate sugar intake (Sweet score sheet)
7. Describe cariogenicity factors of diet habits

Week Six

First Exam

Good Luck!!!

Week Seven

Holiday (Eid Al-fitter)

Enjoy ☺☺

Week Eight

1. Describe causes and mechanism of dental caries formation (Demineralization)
2. Discuss role of fluoride in dental caries prevention (Remineralization)
3. Discuss ways through which fluoride can be applied systemically including community water fluoridation, and dietary fluoride supplements
4. Indicate the concentration, indications and contraindications of various forms of systemic fluoride

Week Nine

1. Identify topical fluoride agents that can be applied by dental professionals in the dental office
2. Discuss uses, indications, contraindications, advantages, and disadvantages of various types of fluoride that can be administered topically including fluoride gel, varnish, mouth rinse, tooth pastes, etc.
3. Demonstrate correct procedure of professional fluoride applications (NaF & APF gels)

Week Ten

1. Define pit and fissure sealants, pits, and fissures
2. Classify and identify various types of sealants (self-cured, auto-polymerized, filled, unfilled, fluoride-releasing filled)
3. List indications and contraindications of sealants
4. Demonstrate correct pit and fissure sealants application procedure and explain rationale of each step (acid etch, isolation, drying, and tooth cleaning/polishing)

Week Eleven

Second Exam

Study Well!!!

Week Twelve

1. Identify common orofacial injuries and traumas and causes of such injuries (sports, accidents, falls, etc.)
2. Discuss methods that can be used to prevent orofacial injuries and traumas such as use of mouth protectors (e.g. mouth guards) by athletics
3. Demonstrate and fabricate mouth guard

Week Thirteen

1. Identify types, causative and risk factors of malocclusion
2. Describe preventive measures that can be utilized to prevent malocclusion and other occlusal problems such as space-maintainer
3. Discuss bad habits, such as thumb sucking, and tongue thrusting, that may cause occlusal problems and how to educate people especially parents about such habits

Week Fourteen

1. Identify health hazards of tobacco use and the main components of tobacco products
2. Identify systemic effects of tobacco on various body systems (table 27-1)
3. Explain what we mean by environmental tobacco smoke
4. List oral manifestations/consequences of tobacco use (table 27-2)
5. Describe tobacco as a major risk factor for periodontitis and other periodontal infections (mechanisms of periodontal tissue destruction and the clinical effects)
6. Discuss the "4 As" of a tobacco cessation program (Ask, Advice, Assist, Arrange)
7. Discuss Tobacco Use Assessment/Questionnaire Form (fig. 27-2) and use this form during dental hygiene process of care

Week Fifteen and Sixteen

Final theoretical and practical Exams

Good Luck!!

Useful Resources

Course Content

| Week Tuesdays | Topics | Chapter in Text (handouts) Instructors: Suhair Obeidat, Reem Tubaishat |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| | Introduction into the course | Orientation Suhair Obeidat |
| | Preventive dentistry overview -3 levels of prevention -Oral health education and motivation -Dental hygienist's role in prevention and promotion | Reading assignments: DH career options in dental public health Wilkins CH. 22 Suhair Obeidat |
| | Plaque control/Oral health - Dental plaque role in dental disease formation - Plaque detection-Disclosing agent - Brushing - Flossing - Patient education about plaque and its control | Wilkins Ch 16, 23, 24 Suhair Obeidat |
| | Eid Al-Adha Holiday | Enjoy ☺ |
| | Diet analysis & nutritional counseling I | Wilkins Ch 28 Suhair Obeidat |
| | Diet analysis & nutritional counseling II | Wilkins Ch 28 Suhair Obeidat |
| | First Intra-semester Exam | Study well!!! |
| | Dental Caries Prevention-Fluoride I - Mechanism of D. caries formation (Demineralization) - Fluoride role in caries prevention (Remineralization) - Systemic Fluoride –.fluoridated water, dietary fluoride supplements | Wilkins Ch 29 First draft of educational material due date Reem Tubaishat |
| | Dental Caries Prevention-Fluoride II | Wilkins Ch 29 |

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| | - Topical Fluoride- Mouth rinses, varnish, gel, tooth paste - Professional fluoride application-NaF, APF | Reem Tubaishat |
| | Dental Caries prevention-pit and fissure sealants | Wilkins Ch 30 Reem Tubaishat |
| | Second Intra-semester Exam | Study Hard |
| | Prevention of occlusal problems/malocclusion | Wilkins Ch.15 Due date of educational material Suhair Obeidat |
| | Tobacco and oral health Tobacco cessation interventions | Wilkins Ch. 27 Reem Tubaishat |
| | Prevention of oral cancer & precancerous lesions Oral cancer professional & self-examination | Handouts Reem Tubaishat |
| | Revision | |
| | Final theoretical & practical Exams Weeks | GOOD LUCK |

ADS 447 Lab Planner

| Week (Thursdays) | Lab Topic | Activity/ Assignment Instructor Suhair Obeidat TA: Abd Almalek Tabanjeh |
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| | Orientation | Lab requirements and assignments overview |
| | Developing educational aid material – Orientation I | The TA will bring and show students models of previous educational aid material and show students how to develop materials (Educational aid project: 15 marks) |
| | Developing educational aid material – Orientation II | The TA will bring and show students models of previous educational aid material and show students how to develop such materials (Educational aid project: 15 marks) |
| | Holiday (عيد الأضحى) | Holiday (عيد الأضحى) |
| | Plaque Control Strategies - Disclosing agent use, Brushing, flossing, , xyltol etc. | Student presentation (10 Marks) |
| | Plaque Control Strategies - Disclosing agent use, Brushing, flossing, , xyltol etc. | Student presentation -Continue (10 Marks) |
| | Diet analysis and nutritional counseling I | Prepare a list of foods and drinks and sweets you eat during past 5 days analyze & calculate (Diet Analysis Assignment: 10 marks) |
| | Diet analysis and nutritional counseling II | Prepare a list of foods and drinks and sweets you eat during past 5 days analyze & calculate (Diet Analysis Assignment: 10 marks) |
| | Mouth guard fabrication | Demo. & Practice (Mouth Guard fabrication assignment: 5 marks) |
| | Mouth guard fabrication-continue | Demo. & Practice (Mouth Guard fabrication assignment: 5 marks) |
| | Professional fluoride & Sealant | Demo. & Practice on partners |

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| | application procedure | |
| | Professional fluoride & Sealant application procedure | Demo. & Practice on partners |
| | Chlorhexidine mouthwash | Writing prescription for CHX mouth wash |
| | Chlorhexidine mouthwash-continue | Writing prescription for CHX mouth wash |
| | Catch up lab | For Excused Absences Only |
| | Final practical exam | -- |

| Additional Notes | |
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| Assignments | Homework and reading assignments: students are expected to complete the required reading and homework assignments mentioned in the course and lab schedules prior to that assigned lab or lecture. |
| Exams | 1st and 2nd intra-semester Exams: two exams will be given in the date assigned for each exam in the course schedule. Final theoretical and practical exams: comprehensive final examination will be administered in the final exams week. |
| Cheating | Cheating the commitment of the Acts of Cheating and deceit such as copying during examinations is dishonest and will not be tolerated; JUST policy will be applied. |
| Attendance | Student attendance and responsibility: students are required to attend 90% of the course lectures and labs. For <i>necessary excused absence</i> e.g. family emergency, extreme illness, etc., please contact course coordinator immediately (within one week). Lab session missed due to accused absence must be made on another session as arranged by the coordinator. <i>JUST POLICY will be applied regarding absences.</i> |
| Laboratory | <ul style="list-style-type: none"> - <i>Small group and class discussions:</i> students are required to participate in the lab discussions mentioned in the schedule by preparing for that discussion prior to the lab session. <u>(Plaque control assignment and presentation: 10 marks)</u> - <i>Diet analysis and counseling:</i> each student is required to complete one diet analysis and counseling on a partner by preparing a 5-days food list prior to the designed lab date. <u>(Diet analysis assignment: 10 marks). For assignment submission Due date, please see the planner. Lateness in submission will be penalized by marks deducted from this assignment grade</u> - <i>Professional Fluoride and sealant application:</i> each student is required to apply one topical fluoride (NaF or APF gel) and one sealant on a partner. - <i>Mouth-guard:</i> each student is required to fabricate a mouth guard and submit it to the coordinator/TA. <u>(5 marks). For assignment submission Due date, please see the planner. Lateness in submission will be penalized by marks deducted from this assignment grade</u> |
| Projects | Educational aid: Each student is required to write (in Arabic) and develop an educational material for the public on one of the dental preventive strategies that could be used to educate public and patients how to prevent dental caries, periodontal diseases, and other dental diseases. <u>First and final drafts must be submitted within the due dates mentioned in the course planner. Lateness in submission will be penalized by marks deducted from this assignment grade (15 marks)</u> |
| Feedback | Concerns or complaints should be expressed in the first instance to the course instructors. If no resolution is forthcoming then the issue should be brought to the attention of the Department Chair and if still unresolved to the Dean. Questions about the material covered in the lecture, notes on the content of the course, its teaching and assessment methods can be also sent by e-mail to the following addresses saobeidat@just.edu.jo |