SAUDI BOARD RESIDENCY TRAINING PROGRAM

Orthodontics

Promotion Examination 2019

Written Examination Format:

- A written examination shall consist of one paper with not less than 100 MCQs with a single best answer (one correct answer out of four options).
- The examination shall contain type K2 questions (interpretation, analysis, reasoning and decision making) and type K1 questions (recall and comprehension).
- The examination shall include basic concepts and clinical topics relevant to the specialty.
- Clinical presentation questions include history, clinical finding and patient approach. Diagnosis and investigation questions; include the possible diagnosis and diagnostic methods. Management questions; including treatment and clinical management, either therapeutic or non-therapeutic, and complications of management. Materials and Instruments questions; including material properties, usage, and selection of instruments and equipment used. Health maintenance questions; include health promotion, disease prevention, risk factors assessment, and prognosis.

Passing Score for Promotion Exam:

The trainee's performance is assessed in each of the evaluation formulas according to the following scoring system:

<table>
<thead>
<tr>
<th>Score</th>
<th>Less than 50%</th>
<th>50% – 59.4%</th>
<th>60% - 69.4%</th>
<th>More than 70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Clear Fail</td>
<td>Borderline Fail</td>
<td>Borderline Pass</td>
<td>Clear Pass</td>
</tr>
</tbody>
</table>

1. To upgrade the trainee from a training level to the next level, She/he must obtain at least a **Borderline Pass** in each evaluation form.

2. The program director may recommend to the local supervision committee to request the promotion of the trainee who did not meet the previous promotion requirement according to the following:

   A. In case that the trainee gets a **borderline Fail** result in **one** of the evaluation forms, the remaining evaluation forms must be passed with **Clear Pass** in at least **one** of them.

   B. In case that the trainee gets a **borderline Fail** result in **two** of the evaluation forms to a maximum, provided they do not fall
under the same theme (Knowledge, Attitude, Skills). The remaining evaluation forms must be passed with **Clear Pass** in at least **two** of them.

C. The promotion must be approved in this case by the scientific council for the specialization.

**Blueprint Outlines**

<table>
<thead>
<tr>
<th>Training Level</th>
<th>Evaluation Item</th>
<th>Content</th>
<th>Relative Percentage</th>
<th>Passing Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R2</strong></td>
<td>Written Examination (120 MCQs, 40%)</td>
<td>Basic Science Topics: 1. Craniofacial Growth and Development  2. Biomechanics  3. Biomaterials</td>
<td>10% 8% 2%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Orthodontic Topics (R2-R5) *Group I, II, III, or IV (based on the group of literature reviewed during a specific year), see below</td>
<td>20%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Annual Report (60%)</td>
<td>Clinical Reports: a- Clinical-Evaluation b- Clinical Log Book</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research: a- Literature review b-Presentation c- Book review d- Research</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Log Book “Clinical Case Review “</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Structure Oral Exam</td>
<td>10%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Training Level</td>
<td>Evaluation Item</td>
<td>Content</td>
<td>Relative Percentage</td>
<td>Passing Score</td>
</tr>
<tr>
<td>----------------</td>
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<td>---------------</td>
</tr>
<tr>
<td>R3</td>
<td>Written Examination (120 MCQs) (40%)</td>
<td>Basic Science Topics&lt;br&gt;1- Occlusion &amp; Craniofacial Dysfunction&lt;br&gt;2- Behavioral science</td>
<td>10%</td>
<td>&lt;br&gt;50%&lt;br&gt;20%</td>
</tr>
<tr>
<td></td>
<td>Annual Report (60%)</td>
<td>Orthodontic Topics (R2 &amp; R3)&lt;br&gt;*Group I or II (based on the group of literature reviewed during a specific year), see below</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clinical Reports:&lt;br&gt;a-Clinical-Evaluation&lt;br&gt;b-Clinical Log Book</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research:&lt;br&gt;a- Lit. review&lt;br&gt;b- Presentation&lt;br&gt;c- Book review&lt;br&gt;d- Research</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Log Book “Clinical Case Review”</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Structured Oral Exam</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>R4 R5 final</td>
<td>Annual Report</td>
<td>Clinical Reports:&lt;br&gt;a- Clinical-Evaluation&lt;br&gt;b- Clinical log Book</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research&lt;br&gt;a-Literature review&lt;br&gt;b-Presentation</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clinical case submission of finished cases</td>
<td>30%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>successful submission of required final 6 clinical cases with Structure Oral Exam</td>
<td>40%</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Note:**
Blueprint distributions of the examination may differ up to +/-3% in each category.
Suggested References:

Appendix II. COURSES REFERENCE LIST

ADVANCED ORAL AND MAXILLOFACIAL RADIOLOGY


INTEGRATED BASIC SCIENCE COURSE I

Embryology

- http://digitalcommons.uconn.edu/cgi/viewcontent.cgi?article=1067&context=srhonors_theses

Anatomy


Oral Pathology


INTEGRATED BASIC SCIENCE COURSE II

Oral Biology

1. Biological changes in PDL and bone during orthodontic treatment:
   • Contemporary Orthodontics, William R. Profitt, 5th Edition
   • Orban’s Oral Histology and Embryology 13th Edition
   • Ten Cate’s Oral Histology 8th Edition

2. Histology of the Cementum and root resorption in Orthodontics
   • Contemporary Orthodontics, William R. Profitt, 5th edition
   • Current principles and techniques: Graber Vanarsdal: 3rd edition

3. Microanatomy and ultrastructure of the Gingiva and how it is affected during orthodontic treatment
   • Carranza’s Clinical Periodontology, 10th edition.
   • Jan Lindhe, Clinical Periodontology and Implantology, 4th edition.
   • Orban’s Oral Histology, 12th edition


5. Age changes that occurs in the oral and dental tissues.
• Ten Cate’s Oral Histology, 8th edition
• Orban’s Oral Histology and Embryology, 13th edition
• Oral Anatomy, Histology and Embryology, 3rd edition
• Carranza’s Clinical Periodontology 10th edition

6. Effects of drugs and systemic factors on orthodontic treatment

Articles Related to Biology of Tooth Movement & Tissue Reaction


**Genetics**

1. **Part 1:**

2. **Part 2:**


3. Part 3:


**RESEARCH METHODOLOGY & SCIENTIFIC WRITING INTEGRATED COURSE**

Articles Related to Evidence-Based Orthodontic Practice


**EDUCATIONAL METHODS**


**BEHAVIORAL SCIENCES**

- Van Houten, R. and Rolider, A. The use of response prevention to eliminate nocturnal thumbsucking. Journal of Applied Behavior Analysis,
17, 509-520, 1984.

- Ramsay, D.S., Soma, M., and Sarason, I.G. Enhancing patient adherence:

- Sheller, B: Orthodontic management of patients with seizure disorders. Semin Orthodontics 10:247-251, 2004
- Williams, B. J. Modified orthodontic treatment goals in a patient with multiple complicating factors. Special Care in Dentistry, 12, 251-254, 1992.

**PRACTICE MANAGEMENT**


**ORTHODONTIC TECHNIQUES INTEGRATED COURSE**

*Wire Bending*

- Manual

Typodont
• Manual

Laboratory Fabricated Appliances
• Manual

CEPHALOMETRIC ANALYSIS

Articles Related to Cephalometric Analysis & Superimposition

- Steiner CC. Cephalometrics In Clinical Practice. Angle Orthod 29:8-29, 1959
- Z. Mirzen Arat, Meliha Rübendüz and Ayça Arman Akgül. The Displacement of Craniofacial Reference Landmarks During Puberty: A Comparison of Three Superimposition Methods

ORTHODONTIC DIAGNOSIS & TREATMENT PLANNING


Articles Related to Etiology of Malocclusion

• Cassidy SE1, Jackson SR2, Turpin DL3, Ramsay DS4, Spiekerman C5, Huang GJ6.


Articles Related to Diagnostic Procedures & Case Analysis


• Naidu D, Freer TJ. Validity, reliability, and reproducibility of the iOC intraoral scanner: a comparison of tooth widths and Bolton ratios. Am J


**Articles related to Facial and Dental Esthetics/ Smile Analysis / Soft Tissue Analysis**


**ORTHODONTIC BIOMATERIALS**


Articles Related to Orthodontic Materials


CRANIOFACIAL GROWTH AND DEVELOPMENT


**Articles Related to Craniofacial Growth & Development**

• Thilander B. Basic mechanisms in craniofacial growth. Acta Odontol Scand 53:144-151, 1995
• Tiziano Baccetti, Lorenzo Franchi, James A. McNamara
• Longitudinal growth changes in subjects with deepbite
• Published in issue: August, 2011
• Harari D, Redlich M, Miri S, Hamud T, Gross M. The effect of mouth breathing versus nasal breathing on dentofacial and craniofacial
development in orthodontic patients. Laryngoscope 120:2089-2093, 2010


### BIOMECHANICS IN ORTHODONTICS

- Nanda RS, Tosun YS. Biomechanics in Orthodontics: Principles and Practice.

### OCCLUSION AND CRANIOMANDIBULAR DYSFUNCTION


### ORTHOGNATHIC SURGERY

- Proffitt WR, White RP, Sarver DM. Contemporary Treatment of Dentofacial Deformities.

### CEPHALOMETRIC SUPERIMPOSITION
• Duterloo HS, Planche P-G. Handbook of Cephalometric Superimposition.


**Articles Related to Cephalometric Analysis & Superimposition**


**ADVANCED ORTHODONTIC SEMINARS**

See Appendix III

**Note:**
This list is intended for use as a study aid only. SCFHS does not intend the list to imply endorsement of these specific references, nor are the exam questions necessarily taken solely from these sources.
Example Questions

EXAMPLE OF K1 QUESTIONS
Question 1

Which of the following part of the brain is located in the posterior cranial fossa?

A. Pons  
B. Spinal cord  
C. The cerebellum  
D. Medulla oblongata

EXAMPLE OF K2 QUESTIONS
Question 1

A young boy came to the clinic with his parents seeking the right time for orthodontic treatment, on examination patient is in the mixed dentition stage, a panoramic view is taken for him illustrated (see images).

What is the most appropriate dental age?

A. Dental age 8  
B. Dental age 9  
C. Dental age 10  
D. Dental age 11