

The American Board of Orthodontics

Written Examination Guide

Fourth Edition July 2009

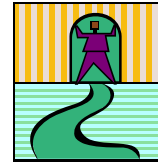
(see Major Revisions History on last page)

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WRITTEN EXAMINATION

[Question Submission for Written Exam](#)
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Background

The ABO Written Examination is a comprehensive exam that assesses the examinee's knowledge of basic sciences and clinical concepts. It is administered at computerized testing centers throughout the United States and Canada. You may petition the board for the opportunity to use a PearsonVUE testing facility outside of the U.S. and Canada. The board will evaluate the security of the test site. If the board concludes the integrity of the examination process can be maintained, permission may be given to test at an overseas facility. Each request will be assessed on an individual basis and the decision of the board is final.

The written examination is available to any educationally qualified practicing orthodontist who has never taken the written exam or was unsuccessful on a prior written exam. Residents in an ADA accredited orthodontic program may take the written exam in the year of their graduation or have completed at least 18 months of their program.

The written examination consists of multiple-choice questions related to the basic sciences, applied biomedical sciences, orthodontic theory, orthodontic practice, related dental disciplines and the orthodontic literature. Questions are developed from various sources by the ABO's Written Examination Committee. In the past, the committee formulated questions using the recommended reading list and referencing journals, textbooks and actual clinical case reports. Now, the process has been improved in order to keep the examination relevant to orthodontics as it is practiced today. The ABO has solicited questions from educators across the country, and will be asking for submission of questions from residents as well. These questions are reviewed and refined by the examination committee and then added to the bank of questions. The goal is to have thousands of questions in order to write multiple examinations for the computerization process. To that extent, the ABO has provided educators (and later, residents) an [entry page for question submission](#) on our website.

It is suggested that candidates review the courses taken during their advanced orthodontic education, major textbooks, and current orthodontic literature. The examination is based on subject areas outlined by the Commission on Dental Accreditation and includes the following subjects:

1. Embryology and Genetics
2. Growth and Development
3. Head and Neck Anatomy
4. Histology
5. Oral Physiology and Biochemistry
6. Pathology
7. Research Methodology and Biostatistics
8. Adjunctive Orthodontic Procedures as related to integrated disciplines
9. Biomechanical Principles
10. Cephalometrics and Radiography
11. Clinical Orthodontics (adults and children)
12. Clinical Photography
13. Craniofacial Deformities
14. Dentofacial Orthopedics
15. Infection and Hazard Control

16. Interdisciplinary Comprehensive Care
17. Risk Management
18. Literature Review
19. Principles of Occlusion
20. Orthodontic and Orthopedic Appliance Design
21. Orthodontic Dental Materials
22. Orthodontic Diagnosis and Treatment Planning
23. Orthodontic Technique
24. Radiographic and Imaging Techniques
25. Surgical Orthodontics (Diagnosis, Treatment Planning and Presurgical and Postsurgical Orthodontic Treatment for Orthognathic Surgery)
26. Temporomandibular Disorders
27. Cardiopulmonary Resuscitation

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Test Specifications

The American Board of Orthodontics Written Examination is based on criterion-referenced testing, which is the concept that examinees should be measured against the skill and knowledge represented by each test item. The difficulty of each item for the minimally-competent examinee is the basis for setting the Criterion Standard, one that is represented as an absolute standard on a Benchmark Scale. The Benchmark Scale and Criterion Standard for The American Board of Orthodontics Written Examination were first established in 2003 and updated for 2008 and beyond.

The ABO Written Examination consists of 240 multiple-choice questions. The following is a breakdown of the percentage of questions to total exam for each topic:

MODULE 1 - Basic and Applied Biomedical Sciences. Topics include:

Anatomical Sciences	8%
Biochemistry / Physiology / Bone Biology and Histology	5%
Developmental Anatomy / Developmental Disturbances / Genetic Disorders	7%
Growth and Development	7%
Microbiology / Immunology / Infection Control / Pathology	4%
Anatomical Landmarks of the Skull	2%
Anatomical Landmarks of the Lateral and Frontal Cephalogram	2%

MODULE 2 - Clinical Sciences "A". Topics include:

Occlusion	5%
Temporomandibular Disorders	4%
Radiography / Photography	4%
Cephalometrics / Computer Techniques	6%
Topics below are combined in this percentage	5%
Cardiopulmonary Resuscitation / Risk Management / Practice Management / Ethics	
Statistics / Research Design / Pharmacology / Pain and Anxiety Control	
Preventive Dentistry / Oral Hygiene / Behavioral Science / Patient Management	
Speech Pathology / Orthodontic History	

MODULE 3 - Clinical Sciences "B". Topics include:

Orthodontic Materials / Physical Principles / Orthodontic Techniques and Appliances	6%
Orthopedics / Biomechanics	6%
Orthodontic Diagnosis / Case Analysis / Treatment Planning	4%
Orthodontics / Oral Surgery / Periodontics / Endodontics	4%
Orthodontics / Restorative Dentistry / Implantology	4%

MODULE 4

Patient Analysis	17%
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**THE AMERICAN BOARD OF ORTHODONTICS
WRITTEN EXAMINATION**

2010 READING LIST

The objective of this reading list is to offer the practicing orthodontist a list of references, which may serve as a source of knowledge in preparing for certification. This reading list includes papers of historical as well as scientific interest. It is intended to give the orthodontist a broad perspective of the changing world of orthodontic theory and practice. Several articles by ABO directors are also included so the candidates may have some insight into their background and current interests. It should be clearly understood that a bibliography, such as this, is not all encompassing and does not remain static. It will be continuously subject to additions and deletions. Current literature and textbooks on orthodontics may be studied in addition to the suggested references.

The American Board of Orthodontics does not consider any of the texts and/or articles to contain the indisputable answer to any questions within the field of orthodontics.

Journal Articles that are new to the list have been highlighted.

AJO-DO journal articles appearing in this reading list are available on CD-ROM provided by the American Association of Orthodontists after August 1st for \$5. Please send your request by email to: library@aaortho.org.

JOURNAL ARTICLES

1.	Early treatment for Class II Division 1 malocclusion with the Twin-block appliance: A multi-center, randomized, controlled trial. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> 135(5):573-579, May 2009.	Kevin O'Brien, et al.
2.	Critical factors for the success of orthodontic mini-implants: A Systematic Review. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 135(3):284-291, Mar 2009.	Y. Chen, et al.
3.	Medication effects on the rate of orthodontic tooth movement: A systematic literature review. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 135(1):16-26, Jan 2009.	T. Bartzela, et al.
4.	Relationship between rapid maxillary expansion and nasal cavity size and airway resistance: Short- and long-term effects <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 134(3):370-382, Sep 2008.	N.L. Oliveira De Felipe, et al.
5.	Radiographic and periodontal requirements of the American Board of Orthodontics: A modification in the case requirements for adult and periodontally involved adolescent and preadolescent patients. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 134(1):3-4, Jul 2008.	J.E. Grubb, et al.

6.	Comparison of hand-traced and computerized cephalograms: Landmark identification, measurement, and superimposition accuracy. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 133(4):556-564, Apr 2008.	D. Roden-Johnson, et al.
7.	Surgically assisted rapid palatal expansion: A literature review. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 133:290-302, Feb 2008.	L. Suri, P. Taneja
8.	Systematic review of the experimental use of temporary skeletal anchorage devices in orthodontics. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 131(4 Supplement) S52-S58, Apr 2007.	M.A. Cornelis, et al.
9.	Periodontal response to early uncovering, autonomous eruption, and orthodontic alignment of palatally impacted maxillary canines. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 131(4):449-455, Apr 2007.	V. Kokich
10.	A revision of the adult intraoral radiograph protocol for ABO clinical examinations. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 131(3):303-304, Mar 2007.	V.J. Dykhouse, et al.
11.	Long-term comparisons of treatment outcomes and stability of Class II patients treated with split ramus osteotomy. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 127(4):451-464, Apr 2005.	J. Berger, et al.
12.	ABO Resident Clinical Outcomes Study: Case Complexity as Measured by the Discrepancy Index. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , pp. 161-163, Feb 2005.	M.L. Riolo, et al.
13.	A Change in the Certification Process by the American Board of Orthodontics. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 127(3):278-281, 2005	M.L. Riolo, et al.
14.	Influence on the masticatory system in treatment of obstructive sleep apnea and snoring with a mandibular protruding device: A 2-year follow-up. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 126(6):687-693, Dec 2004.	A.M. Fransson, et al.
15.	Delayed Tooth Eruption: Pathogenesis, diagnosis and treatment. A literature review. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 126(4):432-445, Oct 2004.	L. Suri, et al.
16.	The American Board of Orthodontics: Diplomate Recertification. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 126(6):650-654, Dec 2004.	M.L. Riolo, et al.
17.	Stability and Predictability of Orthognathic Surgery. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 126(3):273-277, Sep 2004.	L. Bailey, et al.
18.	Surgical and orthodontic management of impacted maxillary canines. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 126:278-283, Sep 2004.	V. Kokich

19.	A Ceph Comparison of Treatment with Twin Block & Herbst Appliance. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 126:7-15, Jul 2004.	A. Schaefer
20.	The ABO discrepancy index: A measure of case complexity. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 125(3):270-278, Mar 2004.	T.J. Cangialosi, et al.
21.	The ABO's 75th Anniversary: A retrospective glance at progress in the last quarter century. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 125(3):279-283, Mar 2004.	T.J. Cangialosi, et al.
22.	Occlusal adjustment for treating and preventing temporomandibular disorders. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 126(2):138-139, 2004.	G. Huang
23.	Long-term follow-up of Class II adults with orthodontic camouflage: a comparison with orthognathic surgery outcomes. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 123:266, 2003.	C.A. Mihalik, et al.
24.	Orthodontic and temporomandibular disorder: A meta-analysis. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 121:438-446, May 2002.	M. R. Kim, et al.
25.	Managing the developing Class III malocclusion with palatal expansion and facemask therapy. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 122:349-52, 2002.	P. K. Turley
26.	The Effect of Preemptive and/or Post Operative Ibuprofen Therapy for Orthodontic Pain. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 120(1):20-27, Jul 2001.	M. Bernhardt, et al.
27.	Pseudoelasticity and thermoelasticity of nickel-titanium alloys: A clinically oriented review. Part I: Temperature transitional ranges, Part II: Deactivation forces. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 119(6):587-603, Jun 2001.	M. Santoro, et al.
28.	Predicting and preventing root resorption: Part I and II. <i>American Journal of Orthodontics</i> , 119(5):505-515, May 2001.	G.T. Sameshima, P.M. Sinclair
29.	Considerations for Orthognathic Surgery During Growth, Part 1: Mandibular Deformities. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 119:95-101, Feb 2001.	L.M. Wolford, et al.
30.	The importance of incisor positioning in the esthetic smile: the smile arc. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 120:98-111, 2001.	D.M. Sarver
31.	Early treatment of vertical skeletal dysplasia – the hyperdivergent phenotype. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 118:317-327, Sep 2000.	P. Buschang, et al.
32.	The use of the lingual arch in the mixed dentition to resolve incisor crowding. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 117(1):81-85, Jan 2000.	M. Brennan, A. Gianelly

33.	Evaluation of treatment and posttreatment changes of protraction facemask treatment using PAR index. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 118(4):414-420, Oct 2000.	P. Ngan, C. Yiu
34.	Treatment timing for Twin-block Therapy. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 118(2):159-170, Aug 2000.	T. Baccetti, et al.
35.	The genetics of human tooth agenesis: New discoveries for understanding dental anomalies. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 117(6):650-656, Jun 2000.	H. Vastardis
36.	Nasal obstruction and facial growth: The strength of evidence for clinical assumptions. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 113(6):603-611, Jun 1998.	K.W.L. Vig
37.	Objective grading system for dental casts and panoramic radiograph. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 114:590-599, 1998	J.S. Casco, et al.
38.	The effects of lip bumper therapy in the mixed dentition. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 111(1):52-58, Jan 1997.	M. Davidovitch, et al.
39.	The mechanism of Class II correction in late Herbst treatment. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 112(1):87-91, Jul 1997.	M. Konik, et al.
40.	The functional matrix hypothesis revisited. 1. The role of mechanotransduction. 112(1):8-11 Jul, The functional matrix hypothesis revisited. 2. The role of an osseous connected cellular network. 112(2):221-226 Aug, The functional matrix hypothesis revisited. 3. The genomic thesis. 112(3):338-342 Sep, The functional matrix hypothesis revisited. 4. The epigenetic antithesis and the resolving synthesis. 112(4):410-417 Oct. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 1997.	M.L. Moss
41.	Biomechanics of orthodontic correction of dental asymmetrics. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 107:618, 1995.	R. Nanda, et al.
42.	Impacted maxillary canines: A review. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 101(2):159-171, Feb 1992.	S.E. Bishara
43.	The risk of orthodontic treatment for producing temporomandibular mandibular disorders: A literature overview. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 101(1):79-83, Jan 1992.	C. Sadowsky
44.	Arch Perimeter changes with RPE. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 97(3):194-199, Mar 1990.	M. Adkins, et al.
45.	The role of the third molar in the cause of the lower arch crowding: A review. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 95:79, 1989.	M.E. Richardson

46.	A long-term prospective evaluation of the circumferential supracrestal fiberotomy in alleviating orthodontic relapse. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 93(5):380-387, May 1988.	J.G. Edwards
47.	An evaluation of changes in mandibular anterior alignment from 10 to 20 years postretention. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 93(5):423-428, May 1988.	R.M. Little, et al.
48.	Prediction of mandibular growth rotation evaluated from a longitudinal implant sample. <i>American Journal of Orthodontics</i> , 86(5):359-370, Nov 1984.	V. Skieller, et al.
49.	Skeletal Morphologic Features of Anterior Open Bite. <i>American Journal of Orthodontics</i> , 85(1):28-36, Jan 1984.	T.J. Cangialosi
50.	Third molars: a review. <i>American Journal of Orthodontics</i> , 83:131, 1983.	S. Bishara, et al.
51.	Deep Overbite Correction by Intrusion. <i>American Journal of Orthodontics</i> , 72:1-22, 1977.	C.J. Burstone
52.	The Wits Appraisal of Jaw Disharmony. <i>American Journal of Orthodontics</i> , 67:125-138, 1975.	A. Jacobson
53.	The Six Keys to Normal Occlusion. <i>American Journal of Orthodontics</i> , 62:296-309, 1972.	L.F. Andrews
54.	Prediction of Mandibular Growth Rotation. <i>American Journal of Orthodontics</i> , 55:585-599, 1969.	A. Bjork
55.	The Clinical Application of a Tooth-size Analysis. <i>American Journal of Orthodontics</i> , 48(7):504-529, Jul 1962.	W.A. Bolton
56.	The Use of Cephalometrics as an Aid to Planning and Assessing Orthodontic Treatment. <i>American Journal of Orthodontics</i> , 46:721-735, 1960.	C.C. Steiner
57.	Long-Term Stability of Lip Bumper Therapy Followed by Fixed Appliances. <i>The Angle Orthodontist</i> , 76(1):36-42, Jan 2006.	M. Solomon, et al.
58.	RME followed by fixed appliances: A long-term evaluation of changes in Arch dimension. <i>The Angle Orthodontist</i> , 73(4):344-353, Aug 2003.	J. McNamara
59.	A longitudinal study of incremental expansion using a lip bumper. <i>The Angle Orthodontist</i> , 73:396-400, Aug 2003.	C. Murphy, et al.
60.	An Improved Version of the Cervial Vertebral Maturation (CVM) Method for the Assessment of Mandibular Growth. <i>The Angle Orthodontist</i> , 72:316-323, 2002.	T. Baccetti, et al.
61.	Does Malocclusion Affect Masticatory Performance? <i>The Angle Orthodontist</i> , 72(1):21-27, Feb 2002.	J.D. English, et al.
62.	Orthodontic Biomaterials: From the Past to the Present. <i>The Angle Orthodontist</i> , 72:501-512, 2002.	R.P. Kusy

63.	Assessment of Root Resorption and Root Shape: Periapical vs Panoramic Films. <i>The Angle Orthodontist</i> , 71(3): 185-189 Jun 2001.	G.T. Sameshima, K.O. Asgarifar
64.	Incisor Root Resorptions Due to Ectopic Maxillary Canines Imaged by Computerized Tomography: A Comparative Study in Extracted Teeth. <i>The Angle Orthodontist</i> 70(4):276-283, 2000.	S. Ericson, et al.
65.	The esthetic impact of extraction and non-extraction treatments in Caucasian patients. <i>The Angle Orthodontist</i> , 70(1):3-10, 2000.	S.J. Bowman, L. Johnston
66.	The Role of Computerized Video Imaging in Predicting Adult Extraction Treatment Outcomes. <i>The Angle Orthodontist</i> , 68(5):391-399, Oct 1998.	T.N. Lee, et al.
67.	A review of contemporary archwires: Their properties and characteristics. <i>The Angle Orthodontist</i> , 67(3):197-208, 1997.	R.P. Kusy
68.	Surgically assisted rapid maxillary expansion: A comparison of technique, response, and stability. <i>The Angle Orthodontist</i> , 67(4):309-320, 1997.	W.M. Northway, et al.
69.	Clinical and Scientific Applications/Advances in Video Imaging. <i>The Angle Orthodontist</i> , 66(6):407-416, 1996.	J.E. Grubb, et al.
70.	Uncovering Maxillary Labially Impacted teeth: Apically Positioned Flap Versus Closed Eruption. <i>The Angle Orthodontist</i> , 65:23-34, 1995.	M. Vermette, et al.
71.	Radiographic Evaluation of Skeletal Maturation. <i>The Angle Orthodontist</i> , 52:88-112, 1982.	L.S. Fishman
72.	Long-term Posttreatment Evaluation of Rapid Palatal Expansion. <i>The Angle Orthodontist</i> , 50:189-217, 1980.	A.J. Haas
73.	Art and science of the Le Fort I downfracture. <i>International Journal of Adult Orthodontics and Orthognathic Surgery</i> , 3(1):23-52, 1988.	W.H. Bell, et al.
74.	Cephalometric analysis of untreated adults with ideal facial and occlusal relationships. <i>International Journal of Adult Orthodontics and Orthognathic Surgery</i> , pp. 221-231, Apr 1988.	J. McNamara
75.	Frankfort-Mandibular Plane Angle in Orthodontic Diagnosis, Classification, Treatment Planning and Prognosis. <i>American Journal of Orthodontics and Oral Surgery</i> , 32:175-230, 1946.	C.H. Tweed
76.	The genetic basis of normal and abnormal craniofacial development. <i>Acta Odontologica Scandinavica</i> , 56(6):321-325, Feb 1998.	I. Thesleff
77.	Basic mechanisms in craniofacial growth. <i>Acta Odontologica Scandinavica</i> , 53(3):144-151, Jun 1995.	B. Thilander
78.	Prevention of infective endocarditis: Guidelines from the American Heart Association. <i>The Journal of the American Dental Association</i> , 138(6):739-760 Jun 2007.	W. Wilson, et al.

79.	The Heritability of Malocclusion: Part 2. The Influence of Genetics in Malocclusion. <i>British Journal of Orthodontics</i> , 26(3):195-203, Sep 1999.	P.A. Mossey
80.	Maxillary development revisited: relevance to the orthopedic treatment of Class II malocclusions. <i>The European Journal of Orthodontics</i> , 19(3):289-311, 1997.	J. Delaire
81.	Meta analysis of the treatment-related factors of external apical root resorption. <i>Orthodontics & Craniofacial Research</i> , 7(2):71-78, May 2004.	G.R.Segal, et al.
82.	Occlusion, orthodontic treatment and temporomandibular disorders: A review. <i>Journal of Orofacial Pain</i> , 9(1):73-115, 1995.	J.A. McNamara, et al.
83.	Class II Malocclusions: Diagnostic and Clinical Considerations With and Without Treatment. <i>Seminars in Orthodontics</i> , 12(1):11-24, Mar 2006.	S.E. Bishara
84.	Managing treatment for the orthodontic patient with periodontal problems. <i>Seminars in Orthodontics</i> , 3(1):21-38, Mar 1997.	D.P. Mathews, V.G. Kokich
85.	Interdisciplinary Treatment: Integrating Orthodontics with Periodontics, Endodontics, and Restorative Dentistry. <i>Seminars in Orthodontics</i> , 3(1):3-73, 1997.	V.G. Kokich, et al.
86.	Ceramic Brackets: Something Old, Something New, A Review. <i>Seminars in Orthodontics</i> , 3:178-189, 1997.	S. Bishara, D.E. Fehr
87.	Managing Complex Orthodontic Problems: Use of Implants for Anchorage. <i>Seminars in Orthodontics</i> , 2(2):153-160, 1996.	V.G. Kokich

TEXTBOOKS

1.	<i>Gray's Anatomy</i>	<u>Thirty-Eighth Edition 1995</u> Chapter 3 ALL Chapter 7 ALL Chapter 8 ALL
2.	<i>Oral Histology</i>	Development, Structure and Function, Antonio Nanci, The Mosby Co. <u>Seventh Edition 2008</u> Chapter 2 pp. 17-29 Chapter 3 pp. 30-53 Chapter 5 pp. 79-110 Chapter 6 pp. 111-144 Chapter 10 ALL Chapter 12 ALL

3.	<i>Syndromes of The Head and Neck</i>	Gorlin , Cohen and Hennekam; Oxford <u>Fourth Edition 2001</u> Chapter 21-24 ALL
4.	<i>Facial Growth</i>	D. Enlow, W.B. Saunders Co. <u>Third Edition 1990</u> Chapter 1 pp. 17-24 Chapter 2 pp. 47-52 Chapter 3 pp. 77-81, 103-104 Chapter 12 pp. 319-330 Chapter 14 pp. 383-386 Chapter 15 pp. 412-418
5.	<i>Oral and Maxillofacial Pathology</i>	Neville, Damm, Allen and Bouquet, W.B. Saunders Co. <u>Third Edition 2009</u> Chapter 1 pp. 40-43 Chapter 7 pp. 213-218 Chapter 14 ALL Chapter 16 pp. 644-646 Chapter 17 pp. 720-721
6.	<i>Management of Temporomandibular Disorders and Occlusion</i>	J. Okeson, The Mosby Co. <u>Sixth Edition 2008</u> Chapters ALL
7.	<i>Radiographic Cephalometry, from Basics to Videoimaging</i>	A. Jacobson, Quintessence Publishing Co., Inc., 1995 Chapter 3 pp. 39-52 Chapter 4 pp. 53-62 Chapter 5 pp. 69-75 Chapter 8 pp. 97-111 Chapter 10 pp. 127-136 Chapter 12 pp. 165-171 Chapter 18 pp. 248-250 Chapter 22 pp. 297-299
8.	<i>Oral Radiology Principles and Interpretation</i>	S.C. White and M.J. Pharoah, The Mosby Co. <u>Fourth Edition 2000</u> Chapter 3 pp. 51-54 Chapter 11 pp. 211 Chapter 13 pp. 246 Chapter 24 pp. 500-501

9.	<i>Contemporary Orthodontics</i>	<p>W.R. Proffit with H.W. Fields, Jr., The Mosby Co.</p> <p><u>Third Edition 2000</u></p> <p>Chapter 2 pp. 25-48 Chapter 3 ALL Chapter 4 pp. 94-112 Chapter 5-6 ALL Chapter 7 pp. 196-239 Chapter 8-10 ALL Chapter 11 pp. 364-374 Chapter 12 pp. 395-416 Chapter 13 pp. 430-443 Chapter 14 pp. 453-469 Chapter 15 pp. 478-503 Chapter 16 ALL Chapter 17 pp. 567-572 Chapter 18-19 ALL Chapter 21 pp. 644-673 Chapter 22 ALL</p>
10.	<i>Biomechanics in Clinical Orthodontics</i>	<p>Ravindra Nanda, W.B. Saunders Co., 1997</p> <p>Chapter 1 ALL Chapter 5 pp. 91-97 Chapter 7 ALL Chapter 10 ALL</p>
11.	<i>Orthodontics, Current Principles and Techniques</i>	<p>T. Graber and R. Vanarsdall, Jr. and K. Vig, The Mosby Co.</p> <p><u>Fourth Edition 2005</u></p> <p>Chapters 1-14 ALL Chapter 16 ALL Chapters 20-25 ALL</p>
12.	<i>Orthodontics Dentofacial Orthopedics</i>	<p><i>J. McNamara, W. Burdon, 2001</i></p> <p>Chapter 1 ALL Chapter 25 ALL</p>
13.	<i>Mosby's Orthodontic Review</i>	<p>J. English, T. Peltomaki, K. Pham-Litschel</p> <p>Chapters 1-25 ALL</p>
14.	<i>Essentials for Orthodontic Practice</i>	<p>Michael Riolo and James Avery 1st edition, EFOP Press, of EFOP, LLC, 2003</p> <p>Chapter 4-6 ALL Chapter 11 ALL</p>

15.	<i>Contemporary Treatment of Dentofacial Deformity</i>	W. Proffit, R. White, D. Sarver: Mosby 2003 Chapter 2 pp. 39 Chapter 5 ALL Chapter 7 ALL Chapters 9-11 ALL Chapters 16-18 ALL
16.	<i>Clinical Periodontology and Implant Dentistry</i>	J. Lindhe, Munksgaard. <u>Fourth Edition</u> Chapter 16 ALL Chapter 31 ALL
17.	<i>Clinical Periodontology</i>	M. Newman, H. Takei and F. Carranza W. B. Saunders Co. <u>Ninth Edition 2002</u> Chapter 5 ALL Chapter 18 ALL Chapter 45 ALL
18.	<i>Primer of Biostatistics</i>	Stanton A. Glantz, McGraw-Hill <u>Fifth Edition 2001</u> Chapter 2-5 ALL Chapter 6 pp. 164-165 Chapter 8 ALL Chapter 12 pp. 418-419
19.	<i>OSHA Bloodborne Pathogens Exposure Control Plan</i>	OSHA
20.	<i>ABO Website</i>	The American Board of Orthodontics, website; http://www.americanboardortho.com
21.	<i>American Red Cross Manual</i>	American Red Cross
22.	<i>ADA Guide to Dental Therapeutics</i>	ADA Publishing <u>Second Edition 2000</u> Chapter 4 ALL Chapter 10 ALL

**THE AMERICAN BOARD OF ORTHODONTICS
WRITTEN EXAMINATION**

CLINICAL TOPICS

Adult treatment
African American cephalometric norms
Alveolar ridge for implants
Anterior facial height
Arch form
Arch length discrepancy
Assessing hand-wrist radiographs
Bicuspid extraction treatment
Bimaxillary protrusion
“Black triangles” / tooth morphology
Blocked out canines
Bolton’s tooth size discrepancy
Bruxism
Class II, Division 1 malocclusion
Class II, Division 2 malocclusion
Class III malocclusion
Closed bite
Congenitally missing premolars
Deep overbite
Dental age vs skeletal age vs chronological age
Dental midline deviations
Diastema
Early loss of primary teeth
Ectopic canines
Endodontically treated teeth
Excessive spacing
Facial asymmetry
Facial type classification
Frenum management
Functional shift
Growth patterns

“Gummy” smile
Hand wrist radiographs
Impacted canine
Implants
Incisor crowding
Lateral open bite
Mandibular asymmetry
Mandibular retrognathia
Maxillary deficiency
Maxillary protrusion
Missing mandibular incisor
Missing molars
Missing teeth
Open bite
Orthodontic relapse
Orthognathic surgery
Over erupted incisors
Over retained primary teeth
Posterior crossbite
Posterior discrepancy
Primary failure of eruption
Retained primary molars
Root resorption
Severe rotations
Space maintenance
Subdivision classification
Surgical procedures
Third molars
TMD
Tongue thrust habit
Upper lip to incisor relationship

MAJOR REVISIONS HISTORY

06/23/06 – New publication

12/19/06 - ...completed at least 18 months in program...

7/1/07 – Journal articles revised

09/11/07 – New Test Specifications

7/22/08 – Revised journal articles, texts, test specifications

7/1/09 – Journal articles revised