

Integrated Course in Occlusion
Incoming Second Year AY 2022/23
Term IV (1.5.2023 – 2.6.2023) 5 weeks

LECTURE SCHEDULE

Date	Lecture Topic	Lecturer	Time	Venue
Week 1 1.5.23 (Mon)	<i>[PUBLIC HOLIDAY]</i>	-	2.00-3.00pm	-
Week 1 2.5.23 (Tues)	Course Introduction: Concepts of Occlusion Issue of occlusal instrumentation	KT	9.00-10.00am	L9 SimLab
Week 1 4.5.23 (Thu)	Making Impressions / Study Casts	KT	2.00-3.00pm	L9 SimLab
Week 2 8.5.23 (Mon)	Articulation of Casts. Concept of Terminal Hinge Axis (THA); Kinematic and Arbitrary Facebow Transfer	KT	2.00-3.00pm	L9 SimLab
Week 2 9.5.23 (Tues)	<i>[NO LECTURE]</i> Lab Exercises Preparation for Functional Waxing Exercise on 11.5.23	KT	9.00-10.00am	L9 SimLab
Week 3 15.5.23 (Mon)	Functional Anatomy and Biomechanics of the Stomatognathic System I - Dento-Alveolar Complex and Cranio-Mandibular Articulation	KT	2.00-3.00pm	L9 SimLab
Week 3 16.5.23 (Tues)	Maxillomandibular Records: Active vs Passive CR Registrations; Technique modifications in dentate / partially dentate / fully edentulous situation.	KT	9.00-10.00am	L9 SimLab
Week 4 22.5.23 (Mon)	Functional Anatomy and Biomechanics of the Stomatognathic System II - Neuroanatomy and Physiology	KT	2.00-3.00pm	L9 SimLab
Week 4 23.5.23 (Tues)	Centric Relation	KT	9.00-10.00am	L9 SimLab
Week 5 29.5.23 (Mon)	Alignment and Occlusion of the Dentition	KT	2.00-3.00pm	L9 SimLab
Week 5 30.5.23 (Tues)	Mechanics of Mandibular Movement; Posterior determinants; Active vs. Passive; Condylar border movements;	KT	9.00-10.00am	L9 SimLab

A/P Keson Tan
Course Director

Amended 6/6/23

cc. Director, Discipline of Prosthodontics, OD and Endodontics

Dr Michael Lim
Dr Teo Juin Wei
Dr Tay Koong Jiunn
Dr Chen Wei Ting, Dr Justin Lam, Dr Charles Tan

Dr Elvin Leong
Dr Wong Kuan Yee
Dr Sophia Hui Xin Yee

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Term IV (1.5.2023 – 2.6.2023) 5 weeks

CLINICAL-LABORATORY EXERCISE / DEMONSTRATION

When a Practical Demo is scheduled, a 30 min briefing precedes each practical session. Briefings will be in **L9 SIMLAB** as indicated. Clinics will be in **Level 8 Clinic** on Monday afternoons and Tuesday mornings.

* Each student is to pair up with the next in the class list by serial number.

* The Demo Groups by class list index number / Locations / Demo Instructor are as follows:

Group A = 20	(Index 1 to 20)	L9 SimLab	L 8 Clinic	KT
Group B = 20	(Index 21 to 40)	L9 SimLab	L 8 Clinic	EL / ML
Group C = 20	(Index 41 to 60)	L9 SimLab	L 7 Clinic	TJW / SHXY
Group D = 20	(Index 61 to 80)	L9 SimLab	L 7 Clinic	WKY

Date	Topic / Demo/Exercise	Staff	Time	Venue
Week 1 1.5.23 (Mon)	<i>[PUBLIC HOLIDAY]</i>	-	-	-
Week 1 2.5.23 (Tues)	Issue of occlusal instrumentation (<i>Amman Girrback Artex CR Articulator & Artex Facebow</i> ,, TMJ Trimeasure, Impression Trays). <i>Lab Demo:</i> Pouring casts in rubber molds Preparation for Functional Waxing Exercise on 11.5.23	KT, ML, WKY, SHXY GJM, CJH	10.00am - 1.00pm	L9 SimLab
Week 1 4.5.23 (Thu)	<i>Clinic Demo:</i> Impression making technique <i>Lab Demo:</i> Pouring casts in Type IV stone <i>Lab Demo:</i> Cast Mounting Preparation for Functional Waxing Exercise on 11.5.23	KT ML, EL, TKJ CWT, JL, CT GJM, CJH	3.00pm - 5.00pm	L9 SimLab L 7/8 Clinic
Week 2 8.5.23 (Mon)	<i>Clinic Demo:</i> Arbitrary Facebow Transfer - AG system <i>Lab Demo:</i> Mounting of Casts – Facebow to Artex Transfer Stands, Transfer Table, Mounting Articulator <i>Lab Demo:</i> Cast Mounting Preparation for Functional Waxing Exercise on 11.5.23	KT, EL, TJW, WKY GJM, CJH	3.00-5.00pm	L9 SimLab L 7/8 Clinic
Week 2 9.5.23 (Tues)	<i>[NO LECTURE]</i> <i>Lab Demo:</i> Trimming & Finishing of Study models - 1 set (articulated)	KT, ML, WKY, SHXY GJM, CJH	9.00am - 1.00pm	L9 SimLab L 7/8 Clinic
Week 2 11.5.23 (Thu)	<u>PreDemo Lecture:</u> Occlusal Morphology I: Factors affecting Occlusal Morphology Functional Waxing Exercise I (<i>after Lundeen</i>) – Occlusal wax-up on “cut-off” casts : upper left 5, 6 and lower left 5, 6	KT ML, EL, TKJ CWT, JL, CT GJM, CJH	2.00pm - 5.00pm	L9 SimLab

Integrated Course in Occlusion
Second Year AY 2023/24
Term I (3.7.23 - 1.9.23) 9 weeks

CLINICAL-LABORATORY EXERCISE / DEMONSTRATION

When a Practical Demo is scheduled, a 30 min briefing precedes each practical session. Briefings will be in **L9 SIMLAB** as indicated. Clinics will be in **Level 8 Clinic** on Tuesday and Wednesday mornings.

* The Demo Groups by class list index number / Locations / Demo Instructor are as follows:

Group A = 20	(Index 1 to 20)	L9 SimLab	L8 Clinic	KT / TJW
Group B = 20	(Index 21 to 40)	L9 SimLab	L8 Clinic	ML
Group C = 20	(Index 41 to 60)	L9 SimLab	L7 Clinic	EL / SHXY
Group D = 20	(Index 61 to 80)	L9 SimLab	L7 Clinic	WKY / TKY

Date	Topic / Demo/Exercise	Staff	Time	Venue
Week 1 4.7.23 (Tues)	<i>Clinic Demo:</i> Occlusal Examination & Completion of Occlusal Examination forms Intra-oral verification of mounted casts Shimstock / GHM checks Occlusal analysis on semi-adjustable articulator	KT, ML, EL, WKY CWT, JL, CT GJM, CJH L8 / L7 Clinic i/c	9.00am-1.00 pm	L9 SimLab L8 Clinic L7 Clinic
Week 1 6.7.23 (Thurs)	Clinical Exercises (continued)	ML, TJW, SHXY, TKJ GJM, CJH L8 / L7 Clinic i/c	9.00am-1.00 pm	L9 SimLab L8 Clinic L7 Clinic
Week 2 11.7.23 (Tues)	<i>Clinic Demo:</i> Eccentric registrations (lateral and protrusive checkbites) for <i>Artex CR</i> articulator. Setting of condylar controls from eccentric registrations. Clinical Exercises (continued)	KT, ML, EL, WKY CWT, JL, CT GJM, CJH L8 / L7 Clinic i/c	9.00am-1.00 pm	L9 SimLab L8 Clinic L7 Clinic
Week 2 13.7.23 (Thurs)	Clinical Exercises (continued)	ML, TJW, SHXY, TKJ GJM, CJH L8 / L7 Clinic i/c	9.00am-1.00 pm	L9 SimLab L8 Clinic L7 Clinic
Week 3 18.7.23 (Tues)	Clinical Exercises (continued)	KT, ML, EL, WKY CWT, JL, CT GJM, CJH L8 / L7 Clinic i/c	9.00am-1.00 pm	L9 SimLab L8 Clinic L7 Clinic
Week 3 20.7.23 (Thurs)	Clinical Exercises (continued)	ML, TJW, SHXY, TKJ GJM, CJH L8 / L7 Clinic i/c	9.00am-1.00 pm	L9 SimLab L8 Clinic L7 Clinic
Week 4 25.7.23 (Tues)	<i>Lab Demo:</i> Fabrication of Custom Anterior Guide Table	KT, ML, EL, WKY CWT, JL, CT GJM, CJH L8 / L7 Clinic i/c	9.00am-1.00 pm	L9 SimLab L8 Clinic L7 Clinic

READING LIST - OCCLUSION and TMD

Recommended Textbook

Okeson J P : **Management of Temporomandibular Disorders and Occlusion**. 7th Edition. Elsevier Mosby, St Louis/Baltimore/Philadelphia/ Toronto, 2012

LATEST Ed: 8th Edition. Elsevier Mosby, St Louis/Baltimore/Philadelphia/ Toronto, April 2019

Recommended Reference Textbook

Mohl N D, Zarb G A , Carlsson G E, Rugh J D : **A Textbook of Occlusion**. Quintessence Publishing Co. Inc., Chicago/London/Berlin/Sau Paulo/Tokyo/ Hong Kong, 1998.

Required Additional Reading

Wiskott H W A. **Fixed Prosthodontics: Principles and Clinics**. Quintessence Publishing Co Ltd. 2011. Chapter 4: Forces and Mastication, pp. 69-96; Chapter 5: Mandibular Movements and Functional Occlusion, pp. 97-126 and Chapter 17: Occlusal Relationships, pp. 581-614.

Shillingburg H T, Hobo S, Whitsett L D : **Fundamentals of Fixed Prosthodontics**. 3rd Edition, Quintessence Publishing Co. Inc., Chicago, 1997. Chapters 2: Fundamentals of Occlusion, pp. 55-78; Chapter 12: Articulation of Casts, pp. 259-299 and Chapter 13: Wax Patterns, pp. 299-326.

Rosentiel, SF, Land, MF and Fujimoto, J: **Contemporary Fixed Prosthodontics**. 4th Edition. The C.V. Mosby Company. St. Louis, Toronto, London, 2006. Chapter 3: Principles of Occlusion; pp 65-84.

Lundeen, HC and Gibbs, CH, **Advances in Occlusion**. John Wright and Sons Ltd., London, 1993. Chapter 1 pp 2-32

Lundeen, HC, and Gibbs, CH. **The Function of Teeth. The physiology of mandibular function related to occlusal form and esthetics**. L & G Publishers, 2005.

Zarb GA, Bergman B, Clayton JA, MacKay HF (Eds). **Prosthodontic Treatment for the partially edentulous patient**. Mosby St Louis. 12th Edition. 2003 Chapter 16: Various centric positions and methods of recording them. Chapter 17: Articulators in restoring occlusion. Chapter 15: The consequences of occlusal interferences. pp 171-187, 188-208 and 161-170.

Malone WFP, Koth DL, Cavazos E, Kaiser DA, Morgano SM, Eds. **Tylman's Theory and Practice of Fixed Prosthodontics**, 8th Edition, Ishiyaku EuroAmerica Inc., St Louis, 1999, Chapter 14: Occlusion pp 301-323.

DuBrul EL: **Sicher and DuBrul's Oral Anatomy**, 8th Edition. Ishiyaku EuroAmerica Inc., St Louis, 1998. Chapter 1: pp 54-58; Chapter 4: pp 104-132; Chapter 5: pp 133-159; Chapter 17: pp 319-329.

<https://www.amannqirrbach.com/en/products/articulation/artex-cr/>

<https://www.amannqirrbach.com/en/products/articulation/artex-facebow>

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https://www.amannqirrbach.com/fileadmin/_agweb_2013/media/mediathek/Print/Instructions/Equipment/Model_fabrication_Articulation/Artex_CR_INT.pdf

https://www.amannqirrbach.com/fileadmin/_agweb_2013/media/mediathek/Print/Instructions/Equipment/Model_fabrication_Articulation/Artex_Gesichtsbogen_Facbebow_Anleitung_Instruction_INT.pdf

https://www.amannqirrbach.com/fileadmin/_agweb_2013/media/mediathek/Print/Instructions/Equipment/Model_fabrication_Articulation/Artex_Uebertragungsstand_INT.pdf

Additional References - Advanced

McNeill, C (Ed). **Science and Practice of Occlusion**, Quintessence Publishing Co. Inc., Chicago/London/Berlin/Tokyo, 1997.

Okeson JP, Ed. **Bell's Orofacial Pains: The Clinical Management Of Orofacial Pain**, 6th Ed. Quintessence Publishing Co. Inc., Chicago / London / Berlin / Tokyo, 2005.

Zarb GA, Carlsson GE, Sessle BJ, Mohl ND Eds. **Temporomandibular Joint and Masticatory Muscle Disorders**. 2nd Edition. Mosby, St. Louis, Toronto, London, 1995.

Sarnat BG, Laskin DM. **The Temporomandibular Joint – A Biological Basis for Clinical Practice**, 4th Ed., W. B. Saunders Co., Philadelphia, 1992.

Okeson JP, Ed. **Orofacial Pain – Guidelines for Assessment, Diagnosis and Management**, 6th Ed Quintessence Publishing Co. Inc., Chicago/London/Berlin/Tokyo, 1996.

McNeill, C. **Craniomandibular Disorders - Guidelines for Evaluation, Diagnosis and Management – The American Academy of Craniomandibular Disorders**, Quintessence Publishing Co. Inc., Chicago / London / Berlin / Tokyo, 1990.

McNeill, C. **Current Controversies in Temporomandibular Disorders**, Quintessence Publishing Co. Inc., Chicago/London/Berlin/Tokyo, 1992.

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