

CEBU DOCTORS' UNIVERSITY
GRADUATE SCHOOL
Mandaue City

CURRICULUM

MASTER OF SCIENCE in DENTISTRY (MSD)
Major in Orthodontics

I FOUNDATION SUBJECTS -----	-6 units
Educ 100 Methods of Research.....	3
Educ 101 Biostatistics and Epidemiology.....	3
II CORE SUBJECTS -----	15 units
MSD 101 Craniofacial Anatomy and Physiology.....	3
MSD 102 Cellular and Molecular Biology.....	3
MSD 103 Multidisciplinary Diagnosis and Treatment.. Planning and Practice Management.....	3
MSD 104 Microbiology and Immunology in Oral Medicine.....	3
MSD 105 Occlusion Temporo-Mandibular Joint Dysfunction.....	3
III MAJOR SUBJECTS-----	15 units
ORT 106 Growth and Development of Face and Dentition.....	3
ORT 107 Diagnosis and Treatment Planning	3
ORT 108 Orthodontics Theories, Principles and Techniques	3
ORT 109 Biomechanics in Orthodontics.....	3
ORT 110 Surgical Orthodontics-Diagnosis and Treatment Planning.....	3
IV CLINICAL ORTHODONTICS -----	18 units
ORT 111 Clinical Orthodontics I	3
ORT 112 Clinical Orthodontics II.....	3
ORT 113 Clinical Orthodontics III.....	3
ORT 114 Clinical Orthodontics IV.....	3
ORT 115 Clinical Orthodontics V.....	3
ORT 116 Clinical Orthodontics VI.....	3
MASTER'S THESIS-----	-6 units
SUMMARY	
Foundation Subjects.....	6
Core Subjects.....	15
Major Subjects.....	15
Clinical Orthodontics.....	18
Master's Thesis.....	6
Total.....	60

COURSE REQUIREMENTS

Comprehensive Examination
Master's Thesis

COURSE DESCRIPTIONS

FOUNDATION SUBJECTS(6 units)

Educ 100 – Methods of Research (credit:3 units; lecture:54 hours(3 hours/week x 18 weeks)

This course is to expose graduate students to the research process in dentistry through the discussion of the steps and examination of completed research reports. A requirement for submission is a research design on an approved topic

Educ 101 – Biostatistics and Epidemiology(credit:3 units; lecture:54 hours)

Statistics deals with the collection, organization, presentation, analysis and interpretation of biological information that can be stated numerically. This course uses statistical methods to summarize the data and statistical procedures to reach certain conclusions that can be applied to the field of dentistry. Practical emphasis is given to study design and the interpretation of results in the field of dentistry

CORE SUBJECTS (credit: 15 units)

MSD 101 Craniofacial Anatomy and Physiology(credit:3 units; lecture:54 hours)

This course demonstrates the gross structure and function of the head and neck including its neural pathways to and from the central nervous system.

MSD 102 Cellular and Molecular Biology(credit:3 units; lecture: 54 hours)

This course is about molecular biology that concerns itself with the understanding of the interactions between the various systems of a cell, including interactions between DNA, RNA and protein biosynthesis as well as learning how these interactions are regulated.

MSD 103 Multidisciplinary Diagnosis, Treatment Planning and Practice Management (credit:3 units; lecture: 54 hours)

This course about how to conduct multidisciplinary diagnosis, treatment planning and dental practice management

MSD 104 Microbiology and Immunology in Oral Medicine(credit:3 units; lecture: 54 hours)

This course on microbiology and immunology covers all aspects of the interrelationship between infectious agents and their hosts. Among the major topics covered are microbial and viral pathogenesis and the immunological host response to infections.

MSD 105 Occlusion Temporo-Mandibular Joint Dysfunction(credit:3 units; lecture: 54 hours)

This course provides a basic understanding of occlusion and the physiology of the stomatognathic system. It includes the etiology, diagnosis and treatment of temporo-mandibular disorders. Differential diagnosis and treatment for patients with temporo-mandibular disorders are covered didactically and clinically.

MAJOR SUBJECTS(credit:15 units)

ORT 106 Growth and Development of Face and Dentition(credit:3 units; lecture: 54 hours)

This course deals with the mechanisms, principles and regulations of human craniofacial complex and the factors influencing pre-natal and post-natal physical growth and development. Methods for evaluating dental, skeletal and other determinants of physiologic age will be integrated with the assessment of growth changes from serial cephalograms and handwrist radiographs.

ORT 107 Diagnosis and Treatment Planning(credit:3 units; lecture: 54 hours)

This course has two parts, where the first part is a lecture, laboratory and seminar covering the nature, classification, development and analyses of the various types of malocclusion. Assessment of orthodontic records and treatment planning of developing malocclusions as well as comprehensive orthodontic problems are learned.

The second part consists of lecture and laboratory activities to make the graduate student proficient in the assessment of complex craniofacial problems involving multidisciplinary specialties and are able to formulate rational treatment plans. Occlusion is discussed as it relates to orthodontic diagnosis, prognosis, finishing and retention.

ORT 108 Orthodontics Theories, Principles and Techniques (credit:3 units; lecture: 54 hours)

This course is a didactic and laboratory introduction to basic clinical principles and techniques. Initially, instruction covers the policies and procedures of the orthodontic clinic and later, the development of a patient diagnostic data base including study casts, photographs, cephalograms, and clinical evaluation of the patient. This segment is a concentrated, didactic course that addresses in some depth the procedures of diagnosis, treatment planning, and application of clinical therapy toward the solutions of orthodontic problems in patients of various and dental development. This course includes typodont setup in normal occlusion before banding; philosophy of treatment; and a coordination of lectures and seminars with laboratory demonstration on archwire fabrication and reasons for each bend. This segment of the course includes treatment of non-extraction case and treatment of bimaxillary-protrusion case, requiring removal of permanent teeth.

ORT 109 Biomechanics in Orthodontics(credit:3 units; lecture: 54 hours)

This course introduces the concepts of orthodontic displacement and force, kinematics and biomechanics of tooth movement. Special emphasis is placed on relevant aspects of biomaterial science, principles of mechanics applied to the analysis of force delivery systems, and the biologic response of tissues to applied forces. Mechanotherapy in various orthodontic techniques and critical evaluation of new concepts and materials are included. This course also focuses on the responses to tooth movement that may occur in the tissue, cell and macromolecular levels of organization. In particular, the physiology of mineralized connective tissue and the process of tooth eruption are used as models to explore the biology of orthodontic tooth movement. Biological, mechanical and engineering principles applicable to orthodontic appliances are discussed in this course.

ORT 110 - Surgical Orthodontics-Diagnosis and Treatment Planning(credit:3 units; lecture:54 hours)

Acquaints the graduate student with those surgical procedures that directly relate to orthodontic treatment plans. The lecture series encompasses a review of diagnostic procedures, surgical techniques for the treatment of maxillary and/or mandibular skeletal excess and deficiency as well as laterognathism, Class II malocclusion and adjunctive techniques of genioplasty for correction of microgenia and macrogenia. In addition to surgical consideration of jaw deformities, time is allocated for miscellaneous pathological conditions.

CLINICAL ORTHODONTICS (credit: 18 units)

ORT 111 Clinical Orthodontics I (credit:3 units; clinical orthodontics:27 hours)

ORT 112 Clinical Orthodontics II (credit:3 units; clinical orthodontics:27 hours)

ORT 113 Clinical Orthodontics III (credit:3 units; clinical orthodontics: 27 hours)

ORT 114 Clinical Orthodontics IV (credit:3 units; clinical orthodontics: 27 hours)

ORT 115 Clinical Orthodontics V (credit:3 units; clinical orthodontics: 27 hours)

ORT 116 Clinical Orthodontics VI (credit:3 units: clinical orthodontics: 27 hours)

MASTER'S THESIS (credit:6 units)

Original and in-depth research on particular field of specialization in dentistry(orthodontics)