



DENTAL SCIENCE MASTER

NEUROMUSCULAR ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS SPECIALTY



C tedra GMI Dental Science

Master course conducted by:

Full professor Julio Suay Anton
Professor Cristina Martinez

Organization of ECTS credits:

BASIC COURSES: 39 credits
ARTICLES AND SEMINARS: 12 credits
SPECIFIC COURSES: 25 credits
SPECIFIC PRACTICES: 30 credits
MASTER THESIS: 14 credits.

Total 120 ECTS Credits



Classes are online from October-July.

Practice locations are: ITALY-USA-ISRAEL-ARMENIA. Location for practice is based on availability and location and request of attendee.

Basic courses year I

Embryonic development and anatomy of the face and oral cavity (5 ECTS credits)

- Oral Histology (5.5 ECTS credits)
- Applied Physiology & Nutrition (5 ECTS credits)
- Biomechanics (5 ECTS credits)
- Applied Oral Pathology (3 ECTS credits)
- Osseointegration & New Therapies (6 ECTS credits)
- Biochemistry & Microbiology (3.5 ECTS credits)
- Biomaterials (5.5 ECTS credits)
- Biostatistics & Research Methodology (4.5 ECTS credits)
- Genetic Growth and Development (3 ECTS credits)
- Dental Science Seminars I (6 ECTS credits)
- Neuromuscular I (7 ECTS credits)
- Internship I (7 ECTS credits)

Basic courses have been organized to respect subsequent specialty courses in contents and form. If you would like further detailed curriculum information on basic courses, please contact Dr. F. Savastano

Articles and seminars: each doctor attending the master's course on Neuromuscular Orthodontics and Dentofacial Orthopedics must obtain credits from publication or congress presentation (poster, lecture etc).

Practices are carried out during the second year. Your Tutor will guide and follow you to the end of the master's courses



Specialty Courses year I

BIOMECHANICS

PROFESSORS

Fabio Savastano (ITALY)

Stanislav Blum (RUSSIA)

UNIT 1. Basic Orthodontic procedures (Blum)

- a) Rapid Palatal expansion
- b) Lip Bumper
- c) Fixed appliances
- d) Face Mask

UNIT 2. Diagnostic fundamentals in Orthodontics (Blum)

- a) Panoramic X-ray
- b) Lateral Ceph.
- c) PA Head X-ray
- d) Sassouni Cephalometric Analysis

UNIT 3. Bracket selection (Savastano)

UNIT 4. Growth and Development. (S.Blum)

UNIT 5. Etiology of malocclusion. (S.Blum)

UNIT 6. Muscles of the stomatognathic system. (S.Blum)

UNIT 7 Functional Treatments (Savastano)

UNIT 8 Introduction to N.O.: freeway space (Savastano)

UNIT 9. Functional Appliances and dento-facial Orthopedics (Savastano)

UNIT 10 Tolerance and the stomatognathic system (Savastano)



NEUROMUSCULAR I: Introduction

PROFESSORS

Fabio Savastano (ITALY)

UNIT 1. Patient set-up for Kinesiographic assessment

UNIT 2. Asymmetries

UNIT 3. Head posture

UNIT 4. Neuroplasticity

UNIT 5. Class II and Class III treatment

UNIT 6. Biological tolerance

Specialty Courses year II

NEUROMUSCULAR II

PROFESSORS

Prof. Fabio Savastano (ITALY)

Prof. Piero Silvestrini (ITALY)

Prof. Prabu Raman (USA)

UNIT 1. Neuromuscular theory- Fascia and Biotensegrity (Savastano)

UNIT 2. Bioelectrical instrumentation: TENS (Prabu Raman)

UNIT 3. Bioelectrical instrumentation: Surface EMG (Prabu Raman)

UNIT 4. Bioelectrical instrumentation: Computerized Mandibular Scanning (CMS) (Prabu Raman)

UNIT 5. Interpretation of Mandibular Scanning for Orthodontics (Savastano)

UNIT 6. Neuromuscular orthodontic treatment (Savastano)

UNIT 7. Interceptive therapy with a Neuromuscular perspective (Savastano)



UNIT 8. HEAD AND BODY POSTURE IN RELATION TO OCCLUSION (Silvestrini)

1. Literature review on link between body posture and mandibular posture.
2. Methods of postural analysis
3. Treatment modalities

NEUROMUSCULAR III: PART I

MULTIDISCIPLINARY APPROACH IN NEUROMUSCULAR ORTHODONTICS

PROFESSORS

Prof. Curtis Westersund (USA)

Prof. Roberto Rinaldi (ITALY)

UNIT 1. Osteopathy and Chiropractic

- a) Atlas Subluxation Complex
- b) Correcting C1-C3

UNIT 2. Radiology

- a) Importance of Radiology for the diagnosis of cervical impairment
- b) Diagnostic radiologic procedures
- c) Follow-up procedures

UNIT 3. Ophthalmologist

- a) Ocular Torticollis
- b) Vision and head posture

UNIT 4. Nose-mouth-throat specialist

- a) Lymphatic tissue obstruction
- b) Nasal resistance
- c) Inner ear and head posture

UNIT 5. Depression tests for In-Office use: Psychological support

- a) Montgomery and Asberg Depression Rating Scale (MADRS and MADRS-S)
- b) Children's Depression Inventory (CDI 2)

UNIT 6. CASE DOCUMENTATION, PHOTOGRAPHY-PRESENTATIONS. (Dr. Roberto Rinaldi-ITALY)

1. Equipment
2. Intra and extra-oral photography
3. Creating a quality presentation



NEUROMUSCULAR III: PART II

SCIENCE IN CRANIOFACIAL PAIN / OROFACIAL PAIN / TMD

PROFESSORS

Prof. Prabu Raman

Prof. Konstantin Ronkin (Russia-USA)

UNIT 1. Anatomy and Physiology of the Masticatory System (Ira I. Shapira):

1. Stomatognathic System
2. Muscle Function and occlusion
3. Dynamics of mandibular movements
4. Neuroanatomy of the stomatognathic system including cervical tract

UNIT 2. TMD. (Ira I. Shapira):

1. Physiology of Pain
2. TMD: Orofacial Pain
3. Literature Review

UNIT 3. Treatment of TMD: (Ira I. Shapira):

1. The orthotic
2. Pharmacology
3. Psychology
4. Multidisciplinary approach

UNIT 4. Neurobiology of Pain and Analgesia. (Ira I. Shapira):

1. SPG blocks
2. Alternative methods of pain treatment

UNIT 5. SLEEP DISORDERS AND TREATMENT (OSAS) (Dr. Konstantin Ronkin)

1. Upper airway evaluation: diagnostic measurements
2. Pathophysiology and comorbidities (all ages)
3. Role of Dentistry in OSAS (Obstructive Sleep Apnea Syndrome)
4. Treatment procedures: CPAP-SURGERY-REMOVABLE APPLIANCES



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- Master's Thesis (14 ECTS credits)
 - Dental Science Seminars II (6 ECTS credits)

Internship subjects

- Internship II (13 ECTS credits)
- Internship III (10 ECTS credits)

