ORAL AND CRANIOFACIAL SCIENCES (OR CRA FAC)

OR CRA FAC 204  Biology of Craniofacial Development and Tooth Movement (2 Units)  Spring  
_Instructor(s):_ Andrew H. Jheon  
_Prerequisite(s):_ None  

_Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects_  

This lecture series occurs once per week (1-hr) for first year dental residents and MS students. Orthodontic tooth movement is a complex process defined by the supporting craniofacial structures including the periodontium (i.e., enamel, dentin, cementum, bone, and periodontal ligament). This course will focus on the basic biological concepts and mechanisms related to craniofacial development and orthodontic tooth movement (OTM). This course will also provide evidence for and against the  

_School: _Graduate Division  
_Department: _Oral And Craniofacial Sciences MS Program  
_May the student choose the instructor for this course?_ No  
.Does enrollment in this course require instructor approval? No  
_Course Grading Convention: _Letter Grade  
_Graduate Division course: _Yes  
_Is this a web-based online course? _No  
_Is this an Interprofessional Education (IPE) course? _No  
_May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? _Yes

OR CRA FAC 205  Advanced Topics in Pharmacology for the Dental Specialist (1 Units)  Spring  
_Instructor(s):_ Mark I Ryder, Brian T. Bast, Caroline Helene Shiboski, Gary C Armitage, Sharon L Youmans  
_Prerequisite(s):_ None  

_Restrictions: Enrollment in the first or second year of the postgraduate/residency programs in the School of Dentistry including Pediatric Dentistry, General Practice Residency, Dental Public Health, Endodontics, Orthodontics, Periodontics, Prosthetic Dentistry, Oral Surgery. Additional enrollment per the request of the student and course director approval._  

_Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects_  

The basic concepts in clinical applications of the major classes of pharmacological agents used in both general and specialty dental practices will be presented. Faculty from the school of pharmacy and dentistry will first present basic principles in the application of antimicrobials, anti inflammatories, analgesics, bisphosphonates, drugs for major systemic conditions, and major drug interactions, followed by direct clinical correlations and applications.  

_School: _Graduate Division  
_Department: _Oral And Craniofacial Sciences MS Program  
_May the student choose the instructor for this course?_ No  
.Does enrollment in this course require instructor approval? No  
_Course Grading Convention: _P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)  
_Graduate Division course: _Yes  
_Is this a web-based online course? _Yes  
_Is this an Interprofessional Education (IPE) course? _Yes  
_May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? _Yes

OR CRA FAC 210  Developmental Biology of the Craniofacial Complex (2 Units)  Fall  
_Instructor(s):_ Nathan M Young  
_Prerequisite(s):_ None.  

_Restrictions: None._  

_Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects_  

This course explores the molecular and cellular mechanisms of craniofacial development. Specific topics include patterning and morphogenesis of the tooth, head skeleton, palate, and other associated structures in a variety of vertebrate model systems. A goal is to understand the etiologies of diseases, syndromes, and abnormalities that affect the craniofacial complex.  

_School: _Graduate Division  
_Department: _Oral And Craniofacial Sciences MS Program  
_May the student choose the instructor for this course?_ No  
.Does enrollment in this course require instructor approval? No  
_Course Grading Convention: _Letter Grade  
_Graduate Division course: _Yes  
_Is this a web-based online course? _No  
_Is this an Interprofessional Education (IPE) course? _No  
_May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? _Yes
OR CRA FAC 215  Laboratory Rotation (6 Units)  Fall, Winter, Spring, Summer
Instructor(s): Staff
Prerequisite(s): Consent of instructor

Restrictions: For graduate students in the Oral & Craniofacial Sciences Program only

Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion

A laboratory rotation course to familiarize first-year graduate students with various approaches to research in Oral & Craniofacial Sciences (OCS). Rotations are six weeks each, with three rotations in total. Students can select the laboratory of any faculty member within the OCS Program.

School: Graduate Division
Department: Oral and Craniofacial Sciences PhD Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes
Repeat course for credit? Yes

OR CRA FAC 222  Seminar Series (1 Units)  Fall
Instructor(s): Nathan M Young
Prerequisite(s): unk

Restrictions: unk

Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion

A seminar series to introduce information, resources, and skills for students to successfully engage in independent MS-level research in the OCS program. Sessions consist of faculty and guest speaker-led interactive lectures covering a range of topics related to current best practice in oral biology research, including basic, clinical, and translational research.

School: Graduate Division
Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory), In Progress (IP, SP/UP) grading allowed
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

OR CRA FAC 221  Extracellular Matrices (2 Units)  Winter
Instructor(s): Sunita V. Ho, Wu Li
Prerequisite(s): Consent of graduate advisor and instructor

Restrictions: None

Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion

Assembly and composition of extracellular matrices, including interactions that occur between cells and matrices. Emphasis on the role of various extracellular matrices during development, function of cell-matrix interactions in the adult, and the perturbation of these relationships that accompanies various disease processes.

School: Graduate Division
Department: Oral and Craniofacial Sciences PhD Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? Yes
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

OR CRA FAC 223  OCS PhD Seminar Series (1 Units)  Fall, Winter, Spring
Instructor(s): Ralph S Marcucio
Prerequisite(s): None

Restrictions: Students must be enrolled in the OCS Graduate Program.

Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion

OCS DDS/PhD and PhD students registered for this course will be required to attend a total of 10 scientific seminars during the academic year and submit a signed log of all of those attended. Additionally, each student is required to submit a review of 3 of the 10 seminars to the Course Instructor by the last day of the Spring Quarter.

School: Graduate Division
Department: Oral and Craniofacial Sciences PhD Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory), In Progress (IP, SP/UP) grading allowed
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

OR CRA FAC 222  OCS PhD Seminar Series (1 Units)  Fall, Winter, Spring
Instructor(s): Ralph S Marcucio
Prerequisite(s): None

Restrictions: Students must be enrolled in the OCS Graduate Program.

Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion

OCS DDS/PhD and PhD students registered for this course will be required to attend a total of 10 scientific seminars during the academic year and submit a signed log of all of those attended. Additionally, each student is required to submit a review of 3 of the 10 seminars to the Course Instructor by the last day of the Spring Quarter.

School: Graduate Division
Department: Oral and Craniofacial Sciences PhD Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No
OR CRA FAC 224 Host Response (2 Units) Spring  
*Instructor(s):* Mark I Ryder  
Prerequisite(s): Consent of graduate advisor and instructor  
Restrictions: Open to graduate and postgraduate students in the Oral and Craniofacial Sciences program.  
Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion  
Components of the immune system, survey of the various immunologic mechanisms in host responses, and current working concepts of the immune system. Overview of consequences that failure, exaggeration, or inability to distinguish self from non-self, may have for the host.

OR CRA FAC 250 Research (1-8 Units) Fall, Winter, Spring, Summer  
*Instructor(s):* Staff  
Prerequisite(s): None  
Restrictions: None  
Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects  
M.S. thesis or Ph.D. dissertation research under the mentorship of Oral & Craniofacial Sciences (OCS) faculty

OR CRA FAC 270 Journal Club (1 Units) Spring  
*Instructor(s):* Ralph S Marcucio  
Prerequisite(s): None  
Restrictions: None  
Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion  
Critical review of current journal articles pertinent to oral biology. Instruction and feedback in the choice of topic, style and effectiveness of presentations are provided, as well as critical discussion of articles and relevance to current research.

OR CRA FAC 283 Introduction of Biostatistics for Dentistry (2.5 Units) Fall  
*Instructor(s):* Alfa-Ibrahim M Yansane  
Prerequisite(s): None.  
Restrictions: None.  
Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion  
This is an introductory level course in biostatistical methods. There will be 9 modules discussing descriptive statistics, probability application and theory, epidemiological study design, hypothesis testing and regression based methods. Each lecture will have both written statistical and computing components. Stata 13 will be taught and used.

School: Graduate Division  
Department: Oral And Craniofacial Sciences MS Program  
May the student choose the instructor for this course? No  
Does enrollment in this course require instructor approval? Yes  
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)  
Graduate Division course: Yes  
Is this a web-based online course? Yes  
Is this an Interprofessional Education (IPE) course? Yes  
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes  
Repeat course for credit? Yes
OR CRA FAC 295 Masters Studies Journal Club (1 Units) Spring
Instructor(s): Nathan M Young
Prerequisite(s): None

Restrictions: Must be a student in a School of Dentistry postgraduate program.

Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion

Critical review of current journal articles pertinent to craniofacial research and oral biology. Faculty in OCS program will assist in the selection of papers for review in the MS Journal Club.

School: Graduate Division
Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? Yes
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes
Repeat course for credit? Yes

OR CRA FAC 296 Master's Thesis Project Design (1 Units) Fall, Summer
Instructor(s): Nathan M Young
Prerequisite(s): None.

Restrictions: Limited to Students enrolled in the MS program in Oral and Craniofacial Sciences.

Activities: Lecture, Seminar, Clinical, Fieldwork, Independent Study, Project, Web work, Workshop, Practical Experience, Special Projects, Lab skills, Lab science, Conference, Discussion

Masters students in oral and craniofacial sciences shall establish their thesis committee; prepare, present, and modify as necessary the thesis project proposal. Students can take OCS 296 for either 1 or 2 consecutive quarters. The grade will be assigned after completion of the course. If the students do not complete the course after two quarters and incomplete will be given for the course.

School: Graduate Division
Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? Yes
May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes