ORTHODONTICS (ORTH)

ORTH 532. Biomechanics: Theoretical Basis for Tooth Movement. 1 Hour.
Semester course; 15 lecture/seminar hours. 1 credit. Introduces physical
science of mechanics and engineering statics as applied to orthodontic
force systems. Emphasizes equilibrium and the biological manifestation
of force systems applied to the dentition and craniofacial skeleton.

ORTH 620. Orthodontic Clinic for Non-orthodontic Graduate Students. 1 Hour.
Semester course; 30 clinical sessions. 1 credit. Must be taken every
semester of the program. Allows residents to diagnose and treat
limited orthodontic problems with special emphasis on the primary and
mixed dentitions. Includes, but is not limited to, anterior and posterior
crossbites, space and tooth loss, transient or definitive crowding
and tooth irregularities, oral habits, ectopic and other tooth eruption
problems.

ORTH 623. Orthodontics Lecture. 2 Hours.
Semester course; 2 lecture contact hours. 2 credits. An introduction to
orthodontics meant to provide second-year dental students with a basic
understanding of the diagnosis and treatment of orthodontic problems.
The emphasis will be on understanding basic, universally applicable
orthodontic concepts rather than on learning specific details relating to
particular treatment mechanisms or appliances. This is consistent with
current trends in the specialty, which recognize that orthodontic solutions
are often attainable by many routes, with a common goal of maximizing
the functional, esthetic and stable end result. There will be an overview
of growth and development, emphasizing how favorable or unfavorable
growth may influence orthodontic diagnosis and treatment. A detailed
description of the development of occlusion will also be presented with
an emphasis on recognizing and diagnosing abnormalities related to
tooth eruption and craniofacial growth.

ORTH 650. Literature Review. 2 Hours.
Semester course; 30 seminar hours. 2 credits. Must be taken every
semester of the program. Reviews classical articles in areas of special
orthodontic interest. Establishes the state-of-the-art and existing
information base. Gives special attention to research methodology and
conclusions reached.

ORTH 652. Growth and Development. 2 Hours.
Semester course; 30 lecture/seminar hours. 2 credits. Must be taken every
semester of the program. Discusses the increases in size and
complexity that occur in the craniofacial region including variations in
proportionality and related variations in facial form and dental occlusion.
Provides special emphasis on compensations in skeletal and soft tissue
structures. Examines the basis for prediction of change.

ORTH 654. Orthodontic Diagnosis and Treatment Planning. 2 Hours.
Semester course; 30 seminar hours. 2 credits. Must be taken every
semester of the program. Considers and discusses available and
theoretical options for clinical management of variations in facial form
dental occlusion.

ORTH 656. Current Literature. 2 Hours.
Semester course; 30 seminar hours. 2 credits. Must be taken every
semester of the program. Presents in a journal-club-format evaluation
of current information in orthodontics and related disciplines. Includes
special emphasis on research methodology and the contributions of
current research to advances in orthodontics.

ORTH 658. Analysis of Orthodontic Treatment. 1.5 Hour.
Semester course; 22.5 seminar hours. 1.5 credits. Must be taken every
semester of the program. Analyzes cephalometric and other objective
measures of the outcomes of orthodontic therapy. Reviews treatment
objectives with respect to actual changes effected in patients. Delineates
changes resulting from therapy from normal variations in craniofacial
development.

ORTH 660. Orthognathic Conference. 1 Hour.
Semester course; 15 seminar hours. 1 credit. Must be taken every
semester of the program. Presents patients requiring coordinated
orthodontic and oral surgery care. Emphasizes long- and short-term
biologic stability of alterations in the structure and function of the
craniofacial skeleton with increased emphasis on facial form and dental
occlusion.

ORTH 662. Craniofacial Anomalies. 1 Hour.
Semester course; 15 lecture/seminar hours. 1 credit. Must be taken every
semester of the program. Discusses the etiology and embryologic basis
of congenital and acquired deformities in the craniofacial structures.
Emphasizes syndromes with craniofacial manifestations and the
diagnosis and treatment planning for patients with facial clefts.

ORTH 680. Orthodontic Clinic. 1-6.5 Hours.
Semester course; 195 clinic sessions. Variable for 1-6.5 credits. Must
be taken both fall and spring of the first and second years of the
program for 6.5 credits each semester. May be taken in additional
semesters as needed to complete clinical training; credit will vary based
on circumstances. Involves supervised experiences in treatment of a
complete spectrum of normally occurring orthodontic problems in an
environment simulating private practice. Graded P/F.

ORTH 700. Senior Selective in Orthodontics. 4 Hours.
Semester course; 4 clinical and 1 seminar hours per week. 4 credits.
Prerequisites: successful completion of ORTH 623, ORTH 733, ORTH 739
and permission of the course director. A clinical and didactic course
designed for students who wish to gain advanced knowledge of
orthodontics in an environment simulating a practice setting. The course
will include participation in seminars, clinical activities and hospital
rotations for craniofacial patients. The course will extend over the fall and
spring semesters and will provide an excellent preparation for students
entering the private practice of dentistry or students seeking graduate
education in the field of orthodontics. A maximum of four students will
be chosen to participate in this selective each year. Graded CO for the fall
semester and P/F for the spring.

ORTH 733. Orthodontic Therapy. 1 Hour.
Semester course; 1 lecture contact hour. 1 credit. Consists of didactic
lectures, a continuation of ORTH 623.

ORTH 739. Clinical Orthodontics III. 1 Hour.
Yearlong course; 2.5 hour clinic sessions. 1 credit. The purpose of this
clinical course is to give the student practical, hands-on, orthodontic
diagnosis and treatment experience to supplement the didactic material
learned in preclinical orthodontic courses. The student will learn how
to diagnose orthodontic problems so that normal developmental
processes, minor occlusal discrepancies with simple solutions and more
complex problems requiring referral to a specialist may be differentiated.
Diagnosis and treatment of cases requiring limited orthodontic therapy
will be the focus of the course during the junior year when students
will rotate through the orthodontic clinic in eight-week block rotations.
Students receive CO grading in the fall and pass/fail grade and credit are
awarded in spring.