University of Nevada at Las Vegas
School of Dental Medicine

Course Syllabus
ORTH 8513: Growth and Development

1) General Information
   Director: Dr. Cliff Seran
   Minor Unit: Clinical Sciences
   Designation: Clinical Sciences
   Type: REQUIRED
   Credit Hours: 1
   Day and Time: Fridays 9am-10am
   Location: Room 228

2) Learning Resources
   Required Text:
   - Assigned articles
   - Dentition of the Growing Child – Moorrees
   - ABO reading list 2010
   - Orthodontics: Current Principles and Techniques Graber, Vanarsdall, Vig (Ed)
   - Facial growth Enlow
   Recommended Text:
   - Embryology, Anatomy
   For each session, class will be assigned selected articles and/or textbook chapters. Each student should read all the articles assigned for the session and is expected to actively participate in the discussion.

3) Participating Faculty
   - Dr. Seran
   - Dr. Mah
   - Dr. Martin

4) Objectives and Outcomes
   At the conclusion of this course, the students will be able to:
   1) Discuss basic concepts and theories of growth
   2) Describe methods to measure facial growth
   3) Discuss growth of cranial base
   4) Understand different concepts in the development of the nasomaxillary complex
   5) Describe the development of the mandible
   6) Describe changes in soft tissue that occur during growth
   7) Describe stages in dental arch development with emphasis on eruption and exfoliation of teeth and
   8) Clinical orthodontic applications and significance of growth in treatment
5) **Purpose**

This course addresses the following competencies:

1. Assess, evaluate, and incorporate into practice new knowledge, scientific reasoning involved in craniofacial development
2. Evaluate, diagnose, and perform orthodontic treatment planning for individual patients utilizing growth potential
3. Diagnose and manage malocclusion and occlusal disorders that are challenged by normal or abnormal growth

6) **Evaluation Methods Overview**

Evaluation Methods Overview

50% Final (Written) Exam
30% Discussions and participation
20% Attendance and Professionalism

**Attendance is mandatory for all sessions**

The College makes no allowances for class cuts. Absences must be arranged with the course director. Assigned grades will be based upon the UNLV’s standard grading policy. A grade of “B” or higher is required to pass the course.

EXAMPLE: Grading scale:
- A = 90 – 100
- B = 80 - 89.9
- F = Below 80

Remediation is at the discretion of the course director on an individual basis. Remediation will involve review of past performance and identification of deficiencies in understanding of the literature. The remediating student, at the discretion of the faculty may be given an opportunity to take a new final exam in order to demonstrate competency in evaluating current literature pertaining to biomechanics in orthodontics. The student will be given a pass grade if he/she obtains over 90% on the retake exam.
7)  **Instructional Sessions**
Each session will be 1 hour in length. A total number of 17 sessions are scheduled, including the Final Examination. Please consult your email regularly for any course announcements. References are the minimum, not the maximum.

<table>
<thead>
<tr>
<th>Resident</th>
<th>Session</th>
<th>Topic</th>
<th>Reading Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker</td>
<td>1</td>
<td>Overview, Theories of growth, including Heredity</td>
<td>Enlow pp 229-248  pp 249-266</td>
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<tr>
<td>Buchanan</td>
<td>2</td>
<td>Cranial base development</td>
<td>Enlow pp 323-326 Proffit Chapter 2</td>
</tr>
<tr>
<td>Cinelli</td>
<td>3</td>
<td>Nasomaxillary and Maxillary growth</td>
<td>Proffit Chapter 2 Enlow pp 176-180</td>
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<tr>
<td>Forgues</td>
<td>4</td>
<td>Mandibular growth</td>
<td>Proffit Chapter 2 ABO #54 – Bjork #48 – Skieller #60 - Baccetti</td>
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<tr>
<td>Klingler</td>
<td>5</td>
<td>Soft tissue development</td>
<td>Enlow Proffit Chapter 4 ABO #40 - Moss</td>
</tr>
<tr>
<td>Whiting</td>
<td>6</td>
<td>Somatic growth at adolescence</td>
<td>Proffit Chapter 4</td>
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<tr>
<td>Baker</td>
<td>7</td>
<td>Eruption and exfoliation</td>
<td>Proffit Chapter 3 Moorrees</td>
</tr>
<tr>
<td>Buchanan</td>
<td>8</td>
<td>Dental arch development</td>
<td>Proffit Chapter 4 Moorrees</td>
</tr>
<tr>
<td>Cinelli</td>
<td>9</td>
<td>Facial growth prediction</td>
<td>ABO List #54 – Bjork #48 – Skieler #60 – Bacetti #71 - Fishman</td>
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<td></td>
<td>10</td>
<td></td>
<td>Final Exam</td>
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8)  **Policy and Procedures**
Examinations: Evaluations will be given during the final scheduled lecture

Remediation: Students failing any academic coursework will be awarded an “F” grade, and will be referred to the Student Progress Committee. The Student Progress Committee shall determine the student’s progress in the dental curriculum, and where appropriate, refer the student to the course director for remediation. Students must formally complete a remediation for any course in which they receive an “F” grade. The student will meet with the course director to develop a remediation plan. The remediation activities are at the discretion of the course director and may consist of a comprehensive examination with emphasis on those areas in which the student failed to achieve a grade of “C” or better, or repeating the course in its entirety. Faculty may be available to assist students preparing for this examination, but the responsibility for learning the material resides with the student. The remedial activity will include no formal instruction. The time and place of the remediation examination will be
arranged individually. Please note that if the course director determines that the student failed the coursework to such an extent that remedial activities would be inadequate to attain an acceptable level of academic achievement in the course material, the course director can recommend that the student repeat the course as the remedial activity. Re-enrollment will be as soon as deemed feasible by the course director utilizing the guidelines of the Student Progress Committee.

The passing grade in the remediation program is a “C”, however, any grade may be obtained by repeating the entire course for credit. Both the original and the new grade will appear on the official transcript. Both the original and the new grade will be used to compute the student’s grade for that course. The recomputed grade will be used to compute the student’s GPA. Students failing to satisfactorily complete the remediation program will again be given a failing “F” grade, referred to the Student Progress Committee and automatically placed on academic probation. Students with a second failing grade in a course will be required to repeat the entire course. Re-enrollment will be as soon as deemed feasible by the course director utilizing the guidelines of the Student Progress Committee. Students failing to satisfactorily complete a course at the second offering will be referred to the Student Progress Committee for further evaluation and action.

For general course policies see the UNLV School of Dental Medicine Student Handbook.

9) Disability Resource Center
The Disability Resource Center (DRC) coordinates all academic accommodations for students with documented disabilities. The DRC is the official office to review and house disability documentation for students, and to provide them with an official Academic Accommodation Plan to present to the faculty if an accommodation is warranted. The DRC strongly encourages faculty to provide accommodations only if and when they are in receipt of said plan. Faculty should not provide students accommodations without being in receipt of this plan.

UNLV complies with the provisions set forth in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, offering reasonable accommodations to qualified students with documented disabilities. If you have a documented disability that may require accommodations, you will need to contact the DRC for the coordination of services. The DRC is located in the Student Services Complex (SSC), Room 137, and the contact numbers are: VOICE (702) 895-0866, TTY (702) 895-0652, FAX (702) 895-0651. For additional information, please visit: <http://studentlife.unlv.edu/disability/>.

For additional information about the DRC and procedures to follow when students ask for exemptions or exceptions based on their disability claim, refer them to the DRC website. For all faculty and staff (professional and classified) ADA accommodation determinations, please contact Marc Cardinalli, Assistant General Counsel and Administrative Code Officer, Flora Dungan Humanities Building (FDH), Room 320, 895-1879.

In addition, you will need to inform the School of Dental Medicine Office of Student Affairs of any determination made by the DRC DS. Additional information about DS can be found on the DS website at http://www.unlv.edu/studentlife/les.

10) Copyright and fair use requirements:
The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. YOUR ARE INDIVIDUALLY AND SOLELY RESPONSIBLE FOR VIOLATIONS OF COPYRIGHTS AND FAIR USE LAWS. THE UNIVERSITY WILL NEITHER PROTECT NOR DEFEND YOU NOR ASSUME ANY RESPONSIBILITY FOR EMPLOYEE OF STUDENT VIOLATIONS OF FAIR USE LAWS. Violations of copyright laws could subject you to federal and state penalties and criminal liability as well as disciplinary action under University policies. To familiarize yourself with copyright and fair use
The information provided to you in this course in the form of handouts, outlines, synopses, PowerPoint presentations, tests, etc. are the intellectual property of the individual faculty. These materials are provided for student use only within the domain of the UNLV School of Dental Medicine. Use of this material by students outside the University setting or distribution of this material to anyone not affiliated with the UNLV SDM constitutes a copyright violation.

11) Observance of Religious Holidays
As a general rule, a student missing a class or laboratory assignment because of observance of a religious holiday shall have the opportunity to make up missed work. **Students must notify the course director of anticipated absences by the last day of late registration to be assured of this opportunity.** Faculty may give students an additional week to complete missed work, but must set a clear deadline. Note: Student who represent UNLV SDM at any official extracurricular activity shall also have the opportunity to make up assignments, but the student must provide official written notification to the instructor no less than one week prior to the missed class(es).

12) FALSIFICATION OF DOCUMENTS OR OTHER INFORMATION
The UNLV Student Conduct Code and the UNLV School of Dental Medicine prohibits the forgery and falsification of any documents or records. This includes, but is not limited to, the forging, altering, misusing, providing or causing any false information to be entered on ANY University or School of Dental Medicine PRINTED OR ELECTRONIC documents, records (including patient records), or identification cards. The falsification of data, improper assignment of authorship of school work or other scholarly activity, claiming another person’s work as one’s own, unprofessional manipulation of experiments or of research procedures, or misappropriation of research funds will not be tolerated. Commission of any act of forgery or falsification as described will result in disciplinary action and sanctions as stated in the School of Dental Medicine Honor Code.

13) ACADEMIC MISCONDUCT
Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the exceptions of the “Student Academic Misconduct Policy” and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV’s function as an educational institution. An example of academic misconduct is plagiarism: “Using the words or ideas of another, from the internet or any source, without proper citation of the sources.” For more information regarding the “Student Academic Misconduct Policy” (approved December 9, 2005), go to [http://studentlife.unlv.edu/judicial/misconductPolicy.html](http://studentlife.unlv.edu/judicial/misconductPolicy.html) or the UNLV School of Dental Medicine Student Handbook for more information.

14) SDMail
By policy, faculty and staff should only e-mail students’ SDMail accounts. SDMail is UNLV SDM’s official e-mail system for students. It is one of the primary ways students receive official university communication. All UNLV SDM students receive a SDMail account after admission to the UNLV SDM.

15) CLASSROOM POLICIES
It is a faculty member’s discretion and prerogative to determine what is and is not acceptable behavior in his or her classroom (i.e., late arrival, wearing hats). Also, classroom occupants are at the discretion of the instructor (per UNLV General Counsel). For more information about classroom policies, go to [http://studnetlife.unlv.judicial.student.html](http://studnetlife.unlv.judicial.student.html).