CMDS 7560: Craniofacial Anomalies
Fall 2014
T-Th, 12:30-1:45
2218 Haley

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Email: sandamj@auburn.edu
(I will respond to your emails within 24 hours, excluding weekends)
Office Hours: immediately after class or by appointment
Phone: 844-9646


Course Objectives:
1) To explain typical developmental anatomy and physiology of facial, oral, and velopharyngeal structures and deviations from typical development that result in craniofacial anomalies.
2) To explain current theories of phonology as they relate to children with atypical anatomical structures and speech development.
3) To explain procedures for assessing resonance.
4) To understand unique feeding difficulties of children born with craniofacial anomalies.
5) To design and interpret assessments of resonance and articulation abilities.
6) To use assessment information to design intervention for resonance and articulation disorders
7) To be able to apply current research to assessment & intervention in feeding, resonance and articulation disorders in children with craniofacial anomalies.

Knowledge and Skills Addressed & Assessed via ASHA Certification Standards:
Through this course we will address the following Knowledge and Skills Assessments for the areas of ARTICULATION and PHONOLOGY (which is listed under expressive & receptive language).

Standard III-B: The applicant must demonstrate knowledge of basic human communication and swallowing processes, including their biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases.
• Identify the major bones and muscles of the craniofacial structure
• Describe major stages in the embryonic development of the craniofacial structures
• Chart typical inheritance patterns for autosomal dominant, autosomal recessive and x-linked conditions
• Describe multifactorial inheritance patterns

Standard III-C. The applicant must demonstrate knowledge of the nature of speech, language, hearing, and communication disorders and differences and swallowing disorders, including their etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates.
• Identify physical characteristics associated with several syndromes which include craniofacial anomalies
• Use several classification systems to describe clefs of the lip and/or palate
• Describe racial differences in the incidence of cleft lip and palate.
• Describe the difference between a syndrome and a sequence
• Identify and describe the feeding, articulation, voice, resonance, hearing. Language, learning and psycho-social problems associated with cleft lip and/or palate and other craniofacial anomalies.
• Contrast velopharyngeal insufficiency, velopharyngeal incompetence, velopharyngeal inadequacy, and velopharyngeal incoordination.
• Describe and distinguish among those articulation errors frequently exhibited by children with VPI which are related to structural deficiencies, those which are compensatory in nature and those which are developmental.

**Standard III-D:** The applicant must possess knowledge of the principles and methods of prevention, assessment, and intervention for people with communication and swallowing disorders, including consideration of anatomical/physiological, psychological, developmental, and linguistic and cultural correlates of the disorders.

• Describe the use of nasendoscopy, multiview video fluoroscopy, and aerodynamic measures in the assessment of VPI.
• Distinguish between competent, incompetent, and borderline VPI based on perceptual, aerodynamic, radiographic and endoscopic data.
• Select appropriate instruments, tests, and activities for the evaluation of clients with suspected VPI.
• Identify those circumstances under which speech pathology is appropriate and under which secondary physical management is indicated in the treatment of individuals with craniofacial anomalies.
• Presented with case history information and a speech sample of children with cleft lip and/or palate, make appropriate recommendations regarding treatment.
• List appropriate treatment goals for simulated clients with craniofacial anomalies
• Describe the major primary and secondary surgical procedures for repair of the lip and palate and osteotomy techniques for facial reconstruction.
• Describe the efficacy of direct muscle training, including CPAP, techniques to improve VPI.
• Describe the efficacy of feedback techniques for improving VPI including nasometry and endoscopy.
• Describe the appropriate use of a speech bulb and a palatal lift.
• Select on aspect of craniofacial anomalies and investigate and provide a detailed written report on that topic.

**Academic Honesty:**
Honesty is expected in class at all times; violations will be reported to the Academic Honesty Committee according to the procedures outlined in the *Tiger Cub*.

**Course Requirements & Expectations:**
Attendance is expected. Regular attendance in class is highly correlated with academic success. If you miss class, you will be responsible for getting notes from a class colleague. It is expected that you will take responsibility for the assigned reading, assignments, and exams that are scheduled. Students may withdraw from a course with a W on their transcript until 10/7/14.

**Assignment:**
The sole assignment for this class will be to develop a class hand out about a syndrome, genetic difference, or chromosomal abnormality that results in cleft lip and/or palate or craniofacial anomaly that affects communication. I will provide a list from which to choose. You will sign up for one from the list and all students in this course will cover a different diagnosis. Your handout will follow a format that I will provide so that all cover the same areas of feeding, articulation, voice, resonance, hearing, language, cognition, learning, and psycho-social problems.
Tentative Course Schedule, Assigned Readings, & Activities:
The course schedule is intended to assist in the completion of reading assignments and preparation for exams. It is tentative and subject to change. The instructor reserves the right to make any changes in the schedule as necessary to meet class or instructor needs.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Book/Article Readings</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>19 &amp; 21 Aug</td>
<td>Introduction to course Anatomy &amp; Physiology: Facial, Oral, and Velopharyngeal Structures; Clefts of the Lip and Palate</td>
<td>Chapt. 1 &amp; 2</td>
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<td>2</td>
<td>26 &amp; 28 Aug</td>
<td>Genetic Evaluation; Embryonic development; Genetics &amp; Patterns of Inheritance</td>
<td>Chapt. 3 &amp; 4</td>
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<td>3</td>
<td>2 &amp; 4 Sep</td>
<td>Problems associated with cleft lip &amp; palate</td>
<td>Chapt. 5,6,7,8,9,10</td>
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<tr>
<td>4</td>
<td>9 &amp; 11 Sep</td>
<td>Problems associated with cleft lip &amp; palate</td>
<td></td>
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<tr>
<td>5</td>
<td>16 &amp; 18 Sep</td>
<td>Problems associated with cleft lip &amp; palate; team approach</td>
<td>Chapt 22</td>
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<tr>
<td>6</td>
<td>23 &amp; 25 Sept</td>
<td>Finish up Problems associated with, etc.</td>
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<td>Exam 1 - 9/25/14</td>
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<tr>
<td>7</td>
<td>30 Sept &amp; 2 Oct</td>
<td>Assessment Procedures: Speech &amp; Resonance</td>
<td>Chapt. 11,13,14</td>
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<td>Speech Aerodynamics</td>
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<td>8</td>
<td>7 &amp; 9 Oct</td>
<td>Orofacial examination Videofluoroscopy</td>
<td>Chapt. 12,15</td>
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<td>9</td>
<td>14 Oct 16 Oct</td>
<td>Dr. Nathaniel Robin, Professor, Dept. of Genetics, UAB, guest lecture</td>
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<td>Fall Break</td>
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<td>10</td>
<td>21-23 Oct</td>
<td>Nasopharyngoscopy; Assessment overview, recommendations, follow-up with local care providers</td>
<td>Chapt. 17</td>
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<td>Exam 2, 10/23/14</td>
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<td>11</td>
<td>28-30 Oct</td>
<td>Treatment Procedures: Speech, Resonance, and Velopharyngeal Dysfunction – Surgical Mgt; Orthognathic Surgery</td>
<td>Chapt. 18 &amp; 19</td>
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<td>12</td>
<td>4 &amp; 6 Nov</td>
<td>Prosthetic Management Speech Therapy</td>
<td>Chapt. 20,21</td>
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<td>13</td>
<td>11 &amp; 13 Nov</td>
<td>Speech Therapy cont’d</td>
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<td><strong>Genetic Handouts Due 11/13/14; presented in class</strong></td>
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<tr>
<td>14</td>
<td>18 Nov 11/20/14</td>
<td>Genetic Handouts ; presented in class ASHA</td>
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<td>15</td>
<td>24-28 Nov</td>
<td>Thanksgiving Break</td>
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<td>16</td>
<td>2 &amp; 4 Dec</td>
<td>Wrap –up, Take home Exam 3 due 12/4/14, in class discussion of exam</td>
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Evaluation:

3 Exams
Class Handout Assignment Class participation
75% 20% 5%

100%

A= > 90%; B= 80-89%; C= 70-79%; D= 60-69%; F= <60%. End of semester totals ending with > .50 will be rounded up to the next letter grade.

Student Evaluation of Course and Professor: Students will be provided with the IAS evaluation instrument expected by Auburn University and augmented with an anonymous comment sheet to collect further input from students.

Students with Disabilities: Students with disabilities who may need accommodations in this course should first work through the Program for Students with Disabilities. The eligible student should arrange a meeting with Dr. Sandage during the first week of class; come during office hours or visit/email for an appointment. If the student does not have an Accommodation Memo but needs special accommodations, an appointment should be made with The Office of Accessibility, 1244 Haley Center, 844-2096 (V/TT).

Disruptive Behavior: Maintenance of a constructive learning environment is essential in this course. Behaviors cited as disruptive will not be tolerated and will be dealt with according to University policy: see www.auburn.edu/administration/governance/senate/beaviorpolicymay03.html.

Emergencies: The University fire alarm, weather siren, or other warning systems may occur during this class period. Instructions issued by the teacher or other University personnel should be followed and may include to “shelter” or “evacuate,” or to “barricade” in the room (see www.auburn.edu/administration/rms/emergency.html).

When sheltering, students are to walk calmly to the nearest Severe Weather Shelter Area (green & white wall-mounted signs). Students should assemble there, sitting in the hallway, so that all classmates can be accounted for.

When evacuating, students are to walk calmly down the hall and stairs, cross the concourse, and assemble on the grassy knoll leading to Cater Hall. Students should gather on the grassy knoll so that all classmates can be accounted for. Dr. Sandage will join the class and take attendance to make sure that everyone in the class is accounted for.

When barricading in the room, turn out the lights, draw the blinds, turn off computers and cell phones, barricade the door, stay away from windows, and crouch behind furniture and walls.