

Pediatric Exercise Physiology



KSS 4900

Eastern Illinois University

Kinesiology & Sports Studies Department

Fall 2016

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Office Hours: **Monday 9-10 am, Tuesday 1-2 pm, Wednesday 9-10am & 4-5 pm & Friday 10-11 am.** Other times by appointment

Course Description: Study of special topics and contemporary issues and trends in Exercise Physiology. Prerequisites: Grade of "C" or better in BIO 2001G, KSS 2440, and 4340; or permission of the Department Chair. Credits: 1
Seminar course presenting an overview of general principles of physical growth and development and how growth and maturation affect physical performance and the physiological response to exercise training. Emphasis on examining the differences between children/adolescents and adults.



Course Objective:

- 1) To provide students with a basic understanding of the growth and development process and how this affects the response to acute and chronic exercise in children and adolescents at various stages of maturation.
- 2) To present an overview of commonly used techniques for the assessment of physical fitness and performance in children

Course

Content:

Topics to be covered include: Growth and development, biological maturation, cardiorespiratory function, metabolic function, aerobic and anaerobic performance, musculoskeletal function, body composition assessment, environmental concerns, exercise and chronic illnesses, others as time allows

Evaluation

& Course

Requirements:

Class Assignments	5-15 pts each
Quizzes	5-12 pts each
Final "Case Study"	50 pts
Presentation	50 pts
Graduate Student Project	20 pts

A =	90 - 100%
B =	80 - 89%
C =	70 - 79%
D =	60 - 69%
F =	< 60%

It is the student's responsibility to be aware of all course assignments and exams through attendance in class and by checking D2L regularly and frequently. Missing an assignment because you failed to check D2L or to attend class is not a legitimate excuse! All assignments must be turned in by the announced due date unless you can provide an official University recognized excuse. **A 50% penalty will be assessed for work that is turned in after the due date/time within 24 hours, after this, work will not be accepted.** The opportunity to make up work that is late due to extenuating circumstances is at the discretion of the instructor. No make-up exams, quizzes, or assignments will be given without appropriate documentation of a university accepted absence excuse.

The instructor's role is to help you learn and understand the course material. However, this requires you to take an active part, including asking questions during class and consulting with the instructor outside of class to clarify the things that you don't clearly understand.

Class Assignments

Class assignments may include (but are not limited to) article summaries, clinical problems and/or case studies. Exercises illustrating principles of Growth & Development, Reading Summaries & Opinion papers +

Article Summaries – A summary of a research article (*in your own words*) devoted to a specific topic.

Growth & Development Assessments – Students will use their own growth data to gain experience using common growth assessment tools.

Quizzes

Quizzes will include multiple choice &/or short answer questions and will be worth 5-12 points each. Quizzes will be assigned approximately every other week.

Presentation

Working individually or in pairs, students will investigate and present to the class an overview of a specific topic related to the active child or adolescent.

Case Study

Presented with information and data related to the growth, development, maturation and fitness of a child or adolescent, students will interpret, explain and provide feedback related to these findings. **The Final Case Study will be due on Tuesday, December 12th @ 2:45 pm**

Participation

As upper level students in the exercise science concentration, it is assumed and expected that you will be interested in the content of this course. All students are **expected to attend class**, be on time and to **participate** in class activities and discussions. When asked a question in class, "*I don't know*" is not an acceptable answer in most cases. You should use what you do know to make an educated guess or provide an opinion. There is no penalty for being incorrect!

Graduate Student Project Graduate students who are enrolled in this course are required, in addition to other requirements, to research and complete a 20 minute lecture to the class on a topic mutually agreed upon by the student and the instructor.

Please turn phones and music players off and remove earpieces/headphones prior to the start of class and leave them in your pocket or backpacks (*they should not be on your desk or in your lap*).

THERE SHOULD BE NO TEXTING DURING CLASS!

The use of a laptop computer or tablet device to view or take notes is permissible but discouraged; however, please do not use these for anything other than class related functions (*Ø facebook, games, twitter, browsing, etc.*) (*Research suggests that less information is retained when tablets/computers are used to take notes compared with writing*)

Individuals who habitually violate these guidelines will be asked to leave the classroom and will need to meet with the instructor prior to being allowed to return.

It is expected that all students will follow the guidelines set forth in the EIU Student Conduct Code (<http://www.eiu.edu/judicial/studentconductcode.php>). Violations will be reported to the Office of Student Standards.

Academic honesty is expected, cheating in any form will not be tolerated! **This includes work assigned through D2L! Work submitted via D2L should be completed independently unless otherwise indicated by the instructor.**

The information contained in this syllabus is subject to change at the discretion of the instructor

- ❖ If you are a student with a documented disability in need of accommodations to fully participate in this class, please contact the Office of Student Disability Services (OSDS). All accommodations must be approved through OSDS. Please stop by Ninth Street Hall, Room 2006 or call 217-581-6583 to make an appointment.
- ❖ Students who are having difficulty achieving their academic goals are encouraged to contact the Student Success Center for assistance with time management, test taking, avoiding procrastination, setting goals and other skills to support academic achievement (www.eiu.edu/~success). The Student Success Center provides individualized consultations. To make an appointment, go to 9th Street Hall, Room 1302 or call 581-6696.

Tentative Schedule

WEEK	Topic	<i>Approximate Quiz Schedule</i>
1	Introduction & Principles of Growth & Development	
2	Growth & Development cont.	Quiz
3	Physical Maturation	
4	Assessment of Physical Maturation	Quiz
5	Aerobic Function in Children & Adolescents	
6	Aerobic Function cont.	Quiz
7	Anaerobic Function in Children & Adolescents	
8	Neuromuscular Function in Children & Adol.	Quiz
9	Neuromuscular Function cont.	
10	Body Composition in Children & Adolescents	Quiz
11	Body Composition cont., Assessment Techniques	
12	Temperature Regulation in Children & Adolescents	Quiz
13	Special Topics (presentations) – Diseases, Disorders & Performance	
14	Special Topics cont.	Quiz
15	Special Topics cont.	
16	Final Case Study Due	Tuesday, December 12th 2:45 pm