University of Florida
College of Health & Human Performance
Department of Applied Physiology & Kinesiology

APK 7108 Environmental Stress/Exercise Physiology, Section #06GE
Fall Semester, 2014

Course Schedule: Thursdays 9:35am – 12:35pm (Periods 3-5)

Class Location: Florida Gym (FLG) 285

Course Instructor: Joshua Yarrow, PhD, CSCS

Office: VA Medical Center – E311 (located across Archer Road from UF Health/Shands)

Office Hours: Monday and Wednesday 11:00am – Noon; other times by appointment.

Contact Info: Email: jfyarrow@ufl.edu
Phone: 352-376-1611 x6477

Textbook: Advanced Environmental Exercise Physiology, Stephen S.Cheung, Human Kinetics, Champaign, IL, 2010

Additional supplemental readings and assignments from the literature, TBA

Course Description: This course is designed to provide a survey of the basic physiologic responses to extreme environmental conditions, with a focus understanding the cardiovascular, cardiopulmonary, and musculoskeletal responses to exercise. Students are expected to have an understanding of basic exercise physiology and of the physiologic responses to exercise in an ambient environment or to be able to acquire this through individual study.

Course Objectives: 1. To understand the functions of the cardiovascular, cardiopulmonary, and musculoskeletal systems involved in exercise, and how these systems respond and adapt to extreme environmental conditions.

2. To enable students to read and critically evaluate the scientific literature in the various topics of discussion.

3. To promote oral communication/presentation skills that are necessary for exercise and health professionals.

4. Upon completion of this course, students should be able to intelligently discuss the effects of various environmental stresses on the cardiovascular, cardiopulmonary, and musculoskeletal systems, how these systems respond to exercise in extreme environmental situations, the mechanisms underlying these effects, and what can be done to enhance exercise performance in extreme environmental conditions.

Class Format: Class will consist of lectures given by the instructor, videos presented by the instructors, interactive classroom discussions, and presentations given by the students. The instructor may assign supplemental reading and/or 'laboratory experiments' related to the lecture topics, if time permits.

Attendance Policy: This is a graduate level course and students are expected to attend all classes. This course adheres to the Graduate School attendance requirements that can be found at: http://gradcatalog.ufl.edu/content.php?catoid=2&navoid=762#attendance

Academic Honesty: Students are expected to adhere to the Academic Honesty policy that can be found at: http://gradcatalog.ufl.edu/content.php?catoid=2&navoid=762#Academic_Honesty

Grading Policy: Grades will be comprised of: Participation (5%), Presentation (25%), Quizzes (20%)*, Midterm Exam (25%), Final Exam (25%). *The lowest quiz grade will be dropped*. This course adheres to the Graduate School grading policy that can be found at: http://gradcatalog.ufl.edu/content.php?catoid=2&navoid=762#grades

Grading Scale
A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
E = 59% or lower

Participation: This is a graduate level course and students are expected to participate in class discussions. This includes discussion related to the research articles that are presented in class by the Instructor or students. Absences will inhibit student's ability to participate.

Presentation: Each student will be expected to present twice during the semester. Presentations must be in PowerPoint format. A brief synopsis of each presentation is included below and additional instructions will be provided in class.

The first presentation will be on a single peer-reviewed research article that is selected by the student from a list provided by the instructor. This is meant to supplement some of the material presented by the instructor, in regards to specific topics of interest.

The second presentation will be on a compilation of peer-reviewed research articles (minimum of 5) that the student selects around a central topic related to environmental stress physiology. The instructor must approve the presentation topic and the topic must expand upon what is presented during the instructors lectures.

These presentations will be graded on the students' ability to communicate to the class the main points of the article(s) in a comprehensive and cohesive manner. A grading rubric is included at the end of the syllabus that includes further details.

Quizzes: Brief quizzes will be given at the beginning of class that will cover the material being presented by students (i.e., first presentation, see above). Each quiz will cover the article(s) that will be presented that day. In this manner, students are expected to have read the articles that will be presented prior to each class period. Quizzes will not cover class lectures. Students who arrive late or do not attend class will forfeit their quiz grade. The lowest quiz grade for the semester will be dropped.

Midterm Exam: The midterm exam will cover lecture material and supplemental reading assignments.

Final Exam: Period 17E – Wednesday December 17th, 5:30-7:30pm
The final examine will cover lecture material and supplemental reading assignments.

Other: Please turn off cell phones prior to class.

Students requesting classroom accommodations must first register with the Dean of Students Office. The Dean of Students will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodations.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Students can provide feedback on the quality of instruction in this course based on established criteria. Students will be informed when evaluations are open, which is typically during the last 2-3 weeks of the semester. Evaluations are conducted online at https://evaluations.ufl.edu.

LECTURE	DATE	TOPIC
1	8/28	Introduction History/Overview of Environmental/Stress Physiology
2	9/4	Temperature Regulation Assign journal articles
	9/11	NO CLASS – Students will retrieve journal articles from library and develop a presentation idea
3	9/18	Temperature: Heat Stress / Hydration Strategies
4	9/25	Temperature: Cold Air Exposure / Cold Water Immersion
5	10/2	Microgravity: Cardiovascular Effects
6	10/9	Microgravity: Bone and Skeletal Muscle Midterm Review
MIDTERM	**10/16**	**MIDTERM EXAM**
7	10/23	Diving and Hyperbaric Physiology
8	10/30	Altitude
9	11/6	Altitude
10	11/13	Hostile Environments: Environmental Agents
11	11/20	Hostile Environments: Food Deprivation
	11/27	THANKSGIVING – NO CLASS
12	12/4	Hostile Environments: Sleep Deprivation Final Exam Review
FINAL EXAM	**Wednesday 12/17**	**FINAL EXAM (Wednesday 5:30pm)**

*This syllabus is subject to change by the instructor with notification in writing to students.

APK 7108 PRESENTATION EVALUATION FORM

Presenter: _____ Date: _____

Topic: _____ Instructor: _____

PRESENTATION STYLE	Unacceptable	Needs Work	Average	Very Good	Excellent
Effectiveness of delivery (well-practiced, engaging, etc)	1	2	3	4	5
Presenter spoke clearly with appropriate speed, cadence, volume	1	2	3	4	5
Presentation fit within time allotted	1	2	3	4	5
Professionalism of presentation and presenter's demeanor	1	2	3	4	5
Comments:					
AUDIO/VISUAL	**Unacceptable**	**Needs Work**	**Average**	**Very Good**	**Excellent**
Appropriate use of slide (number of slide, time on each slide, etc)	1	2	3	4	5
Quality of text slides (legible, enhance verbal portion, etc)	1	2	3	4	5
Qualify of graphs, tables, images	1	2	3	4	5
Comments:					
CONTENT	**Unacceptable**	**Needs Work**	**Average**	**Very Good**	**Excellent**
Presentation was well organized and easy to follow	1	2	3	4	5
Clarity and progression of ideas	1	2	3	4	5
Appropriate integration of scientific data/background	1	2	3	4	5
Hypothesis were clearly stated	1	2	3	4	5
Study design and setting were clearly stated and accurate	1	2	3	4	5
Depth of explanation / educational content was appropriate	1	2	3	4	5
Statistical design was appropriate	1	2	3	4	5
Overall education value	1	2	3	4	5
Comments:					
OVERALL GRADE			**/75**		