

# Sport Science for Athlete Development Specialists

SPM 5936 (786H, 41A3, 4F67)

Summer B 2019

1 Credit Hour

## Instructor Information:

Instructor: Dr. Michael Sagas, EdD  
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Office Hours: By appointment

## Course Website:

<http://elearning.ufl.edu>

## Course Description:

This one-hour course is designed for students to build a foundation in sport science and athlete human development as part of the PAADS Athlete Development Specialist program at UF (see this site for more information about the ADS Certificate: <http://sm.hhp.ufl.edu/program-overview/athlete-development/>).

Through exposure to these components, students will gain knowledge in the fundamental concepts of sport medicine and the treatment, rehabilitation, and prevention of athletic injuries; sport nutrition and the utilization of food substances during physical activity and recovery; motor learning and movement behavior as a result of practice; and sport physiology of how the systems of the body function and adapt before, during, and after exercise.

This course also includes exploration of human development through the developmental stages of adolescence through early adulthood, including physical, mental, and emotional growth; and gender differences as they impact physical and psycho-social development of the athlete.

Upon completion of the one-hour course, students will have a foundational knowledge of how physical training during appropriate stages of human development can maximize athletic performance and how shortcuts in the physical, mental, and emotional development can derail an athlete's long-term ability to succeed. Students will also be able to identify scientific concepts related to sport and medicine that will promote the athlete's overall safety, health, and well-being in physical, mental, and emotional growth.

## Course Objectives:

1. Students will be able to proactively identify and combat physiological, mental, and emotional developmental risk associated with competitive athletics.
2. Students will demonstrate knowledge of body systems with emphasis on the interrelationships between structure and physical function, and be able to identify integral mechanical factors related to human movement.
3. Students will be able to identify the components of sport science and be able to effectively communicate the relationship between physical fitness, physical performance, injury prevention, and nutritional intake to athletes and coaches.
4. Students will demonstrate knowledge of how body systems respond to physical activity and injury, and they will be able to analyze and evaluate an individual's state of nutrition based upon the impact of personal choices.
5. Students will increase their comprehensive knowledge of safety, health, and wellness by understanding athlete human behavior.
6. Students will be able to apply their learning in this course to their lives, and to their chosen field(s) of endeavor as an Athlete Development Specialist as defined by the PAADS Curriculum Guidelines.

## Course Format:

This course is an online course and all class sessions (including discussion sessions) will be delivered through E-Learning. The course is organized around five modules.

Students should watch each of the short lectures that are linked under each topic area in the E-Learning course website and take each quiz. There are four quizzes total.

Each student will also be asked to post Athlete Development Resources to a YellowDig forum. YellowDig is a social learning platform that engages students in a classroom community using a broad array of resources including video, news articles, and blogs.

The Final Assignment- Sport Science Resource Board using YellowDig will ask students to participate in the creation of a week-long online forum that will result in a public Sport Science Resources Board. Completing the various tasks associated with the second YellowDig forum will constitute the final assignment for the course.

### Grading & Point Distribution

Quizzes (15 points each X 4 Quizzes)	60 pts
Final Assignment Resource Board using YellowDig	40 pts
<i>Total Possible Points</i>	<i>100 pts</i>

## Grading Scale

A	=	93-100%
A-	=	90 - 92.9%
B+	=	87-89.9%
B	=	83-86.9%
B-	=	80 - 82.9%
C+	=	77-79.9%
C	=	73-76.9%
C-	=	70 - 72.9%
D+	=	67-69.9%
D	=	60-66.9%
E	=	59.9 or lower

## Course Outline:

### **Module 1: Introduction to the Athlete**

#### Topics:

- 1.a: Adaptation through Physical Training
- 1.b: Motor Performance Abilities and Behaviors
- 1.c: Developmental Stages and Maturation

#### Quiz 1:

Quiz 1 is available from July 1 to August 2.  
You must complete Quiz 1 prior to proceeding to Module 2.

### **Module 2: Strategies for Maximizing the Athlete's Potential**

#### Topics:

- 2: Long Term Athlete Development

## Module 3: How the Body Works

### **Topics:**

3.a: Body Structures Important for Performance

3.b: The Athlete's Energy Supply

3.c: Nutrition, Energy Systems, and Fuel for Diet

### **Quiz 2:**

Information from Module 2 and 3 are assessed in Quiz 2.

Quiz 2 is available from July 1 to August 2.

You must complete Quiz 2 prior to proceeding to Module 4.

## Module 4: Enhancing the Athlete's Physical Work Capacity

### **Topics:**

4.a: Aerobic vs. Anaerobic Capacity

4.b: Core Training Principles

4.c: Training Stimulus and Human Performance

4.d: Physiologic Strength and Power

4.e: Peripheral Structure Adaptations

4.f: Central Strength Adaptations

### **Quiz 3:**

Quiz 3 is available from July 1 to August 2.

You must complete Quiz 3 prior to proceeding to Module 5.

## Module 5: Enhancing the Fluidity of Movement

### **Topics:**

5.a: Coordination, Flexibility and Range of Motion

### **Quiz 4:**

Quiz 4 is available from July 1 to August 2.

You must complete Quiz 4 prior to proceeding to the Final Assignment.

**Final Assignment:**  
**The Sport Science for Athlete Development Resource Board**  
**Available July 29 - August 9**

Instructions posted in Canvas during week 2 of the course.

Part I of this assignment is due between:

July 29th (or upon completing Quiz 4, whichever comes first) *AND* August 2<sup>nd</sup>

Part II of this assignment must be completed between:

August 2<sup>nd</sup> *AND* August 9<sup>th</sup>

Honor Code Policy:

*“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”*

The following pledge will be either required or implied on all work:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment”

It is the duty of the student to abide by all rules set forth in the UF Undergraduate Catalog. Students are responsible for reporting any circumstances, which may facilitate academic dishonesty.

**University Policy on Academic Misconduct:** Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

**University Policy on Accommodating Students with Disabilities:** Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

**Attendance and Make Up Policy:** Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

### **Getting Help:**

For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.