University of Florida

College of Health and Human Performance

Department of Applied Physiology and Kinesiology

Master of Science in Applied Physiology and Kinesiology Degree

Strength and Conditioning Practitioner Concentration

Handbook

I. Introduction

The Strength and Conditioning Practitioner Concentration within the APK Master's of Applied Physiology and Kinesiology (M.S.-APK) degree is a non-thesis program that prepares students to successfully obtain the Certified Strength and Conditioning Specialist (CSCS) credential conferred by the National Strength and Conditioning Association (NSCA) through exemplary didactic coursework and practical experiences. The concentration consists of nine courses equaling 30 academic credits and meets the requirements to earn the Master's of Applied Physiology and Kinesiology (MS-APK) degree. The concentration is completed in a residential and the typical length of completion is two academic years. Students will gain requisite knowledge, skills, and abilities in the areas of human anatomy, human physiology, exercise physiology, biomechanics, sports psychology, sports nutrition, sports science, tactical strength and conditioning, and strength and conditioning for beginning practitioners and apply them in two distinct hands-on practical experiences at pre-approved practicum sites.

I.A. Accreditation

The University of Florida is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate's, baccalaureate, master's, education specialist, and doctoral degrees. The most recent reaffirmation occurred in 2024.

The Strength and Conditioning Practitioner Concentration within the MS-APK degree applied for accreditation through the Commission on the Accreditation of Strength and Conditioning Education (CASCE) in Fall 2024 with an anticipated accreditation decision forthcoming in Spring 2026.

I.B. Resources

The Strength and Conditioning Practitioner Concentration within the MS-APK degree maintains the technological, instructional, and financial resources to deliver high quality coursework and practical experiences to students seeking to begin a career in the strength and conditioning industry.

I.C. Mission, Goals, and Program Outcomes

a. The mission of the University of Florida is to enable our students to lead and influence the next generation and beyond for economic, cultural, and societal benefit.
b. The mission of the College of Health and Human Performance (HHP) is to provide recognized programs of excellence in teaching, research, and service that focus on assisting individuals, families, and communities to promote health and prevent disease while enhancing quality of life across the lifespan.
c. The mission of the MS-APK concentration is to train students for careers in scientifically based exercise programs for research, health maintenance, performance enhancement, cardiac risk identification, and rehabilitation.

d. The mission of the Strength and Conditioning Practitioner Concentration within the MS-APK concentration is to be a program recognized for excellence in teaching that prepares students to enhance the human performance of all athletes through sound exercise program design, nutrition guidance, psychological resilience, and informed practice and thereby influence the next generation of athlete for economic, cultural, and societal benefit.

   Elements of the mission statements for the university, college, and program are incorporated into the mission of the concentration.

I.C.1. Program Goals

1. Program Goal 1 – Provide quality core courses that furnish the foundational knowledge, skills, and abilities in strength and conditioning.
2. Program Goal 2 – Ensure quality practical experiences that allow students to apply foundational knowledge, skills, and abilities and to further develop critical thinking and communication skills and multicultural sensitivity under the supervision of field experts within the domain of strength and conditioning.
3. Program Goal 3 - Increase the quality and quantity of applicants to the Strength and Conditioning Practitioner Concentration

I.C.2. Program Student Learning Outcomes

4. Knowledge – Discuss, explain, and defend subject matter relevant to the strength and conditioning discipline.
    i. Assessment method – Successful comprehensive final exam per department standards and guidelines.
5. Skills – Discuss, explain, and defend in strength and conditioning discipline specific skills.
    i. Assessment method – Successful completion of practicum courses and demonstration of practical competencies per department standards and guidelines.
6. Professionalism - Display ethical behavior, cultural sensitivity, teamwork, professional conduct, and professional communication.
    i. Assessment method – Evaluation of performance in practicum courses and demonstration of practical competencies per department standards and guidelines.

II. Faculty

The Department of Applied Physiology and Kinesiology (APK) includes 22 research faculty, 11 instructional faculty, and 3 clinical faculty members. Six instructional and 1 research faculty members teach courses in the Strength and Conditioning Practitioner Concentration. This allows all courses within the curriculum to be offered at least once per academic year which includes fall, spring, and summer semesters. Courses are offered at regular intervals as described in (c.) below. The College of HHP limits graduate courses to 25 students per section to ensure an appropriate student to faculty ratio. Faculty involved in the Strength and Conditioning Practitioner Concentration are highlighted below.

1. Program Director

Dr. Blain Harrison, Ph.D, CSCS*D is a Senior Lecturer within the Department of Applied Physiology and Kinesiology and serves as both the APK Internship Coordinator and director of the M.S.-APK Strength and Conditioning Practitioner Concentration. Dr. Harrison joined the APK Faculty in 2016 and has maintained the CSCS credential since 2001. Learn more about Dr. Harrison here. Dr. Harrison is afforded the same status, rights, responsibilities, privileges, and voting rights as all other UF, College of Health and Human Performance (HHP), and APK faculty members as outlined in the UF faculty handbook, HHP Constitution, and APK Operating Code. The Program Director position is consistent with similar positions at UF as outlined by the UF Human Resources office. The workload assignment for the Program Director is commensurate with guidelines established by the College of Health and Human Performance.

2. Field Experience Coordinator

Dr. Harrison also serves as the Field Experience Coordinator for the MS-APK Strength and Conditioning Practitioner Concentration as an extension of his role as the Internship Coordinator for the undergraduate and graduate APK programs. He has served as the APK Internship Coordinator since 2016. His responsibilities in this role include maintaining Site Approval Forms and Memoranda of Understanding with all program Practicum sites, establishing assessment criteria within the Practicum courses, communicating with Field Experience Site Supervisors regarding program policies and procedures, and aiding students in completing the process of securing Practicum sites.

3. APK Faculty

The APK Faculty listed below teach courses within the Strength and Conditioning Practitioner Concentration.

Dr. Paul Borsa, Ph.D, ATC – APK5121 - Anatomy & Physiology for Sports & Exercise Practitioners: Fall semester

Dr. Max Adolphs, Ph.D – APK6116C - Physiological Bases of Exercise & Sport Sciences: Fall and Spring semesters

Dr. Matt Terza, Ph.D, CSCS – APK6226 – Biomechanics of Human Motion: Fall and Spring semesters (residential)

Dr. Garrett Beatty, Ph.D – APK5404 – Sport Psychology: Fall semester; APK5702 – Applied Sport Science: Fall and Spring semesters

Dr. Blain Harrison, Ph.D, CSCS*D – APK6167 – Nutrition Aspects of Human Performance: Fall semester; APK6611 – Tactical Strength and Conditioning: Fall semester; APK5177 – Strength and Conditioning for Beginning Practitioners: Spring semester; APK6940 – Advanced Practicum: Fall, Spring, Summer semesters.

4. APK Faculty Advising

The APK department utilizes a hybrid model for advising non-thesis graduate students. Non-thesis residential graduate students are assigned to one of six APK faculty for academic advising. All APK Faculty responsible for advising students in the Strength and Conditioning Practitioner Concentration are informed by the Program Director of curricular requirements and CASCE standards so that they may provide appropriate

guidance for students in the program. The department includes two, full-time, academic advisors responsible for advising undergraduate students. These advisors collaborate with the graduate faculty-advisors to resolve any administrative concerns as they arise.

III. Curriculum

1. Program Academic Requirements

The Strength and Conditioning Practitioner Concentration within the MS-APK degree consists of 30 academic credits that prepare graduate students for entry-level employment as NSCA Certified Strength and Conditioning Specialists. Courses within the concentration help students meet the degree requirements established for the MS-APK degree. Students must complete 30 graduate credits including one course from each of the six fundamental topic areas in the program which include "Fundamentals in Exercise Physiology", "Fundamentals in Research", "Fundamentals in Exercise Conditioning", "Fundamentals in Assessment", "Fundamentals in Behavioral Aspects of Performance", and "Fundamentals in Sports Nutrition". In addition, students must complete 4 courses from a list of approved electives. The nine courses comprising the Strength and Conditioning Practitioner Concentration fulfill these requirements and align with the program's mission to be a program recognized for excellence in teaching that prepares students to enhance the human performance of all athletes through sound exercise program design, nutrition guidance, psychological resilience, and informed practice and thereby influence the next generation of athlete for economic, cultural, and societal benefit. These courses align with the degree requirements as outlined below.

i. **Fundamentals in Exercise Physiology:**
    1. APK5121 - Anatomy & Physiology for Sports & Exercise Practitioners (3-credits)
    2. APK6116C - Physiological Bases of Exercise & Sport Sciences (3-credits).

ii. **Fundamentals in Research:**
    1. APK5702 - Applied Sport Science (3-credits)

iii. **Fundamentals in Exercise Conditioning:**
    1. APK5177 – Strength and Conditioning for Beginning Practitioners (3-credits)
    2. APK6611 – Tactical Strength and Conditioning (3-credits)

iv. **Fundamentals in Assessment:**
    1. APK6226 – Biomechanics of Human Motion (3-credits)

v. **Fundamentals in Behavioral Aspects of Performance:**
    1. APK5404 – Sport Psychology (3-credits)

vi. **Fundamentals in Sports Nutrition:**
    1. APK6167 – Nutrition Aspects of Human Performance (3-credits)

vii. **Electives:**
    1. APK6940C – Advanced Practicum in Exercise and Sport Science (6-credits)

Per UF Graduate School policy, students are required to pass a comprehensive final exam in their intended graduation semester. Students in the MS-APK Strength and Conditioning Practitioner Concentration are highly encouraged to complete the NSCA

CSCS Exam in their final semester. Students who successfully pass the CSCS exam by the end of the comprehensive exam schedule are permitted to substitute this exam for the MS-APK comprehensive exam. The MS-APK comprehensive exam is offered each semester in mid-October, mid-March, and mid-June, respectively. Students who do not complete the NSCA CSCS exam by the end of the MS-APK comprehensive exam schedule, or who are unsuccessful at passing it, may still graduate from the MS-APK program by passing the MS-APK comprehensive exam. The MS-APK comprehensive exam is offered within a two-week window of time. Students planning to complete the NSCA CSCS Exam are advised to take it during the first week of this window so that they have time to remediate using the MS-APK comprehensive exam if they do not successfully pass the CSCS exam.

2. Course sequencing

Students may complete the MS-APK Strength and Conditioning Practitioner concentration curriculum on either a part-time or full-time basis. Students seeking to complete the program part-time should plan to finish 3-6 credits of coursework per semester. Students seeking to complete the program full-time should plan to finish 9-12 credits of coursework per semester. Full-time students may complete all 30 credits within one academic year by taking credits in the Fall, Spring, and Summer semesters. Part-time students may complete the program in 5 – 10 academic semesters depending on how many credits they earn per semester.

Students may only apply to enroll in their first semester of the program in the Fall academic semester due to the available course schedule in the program.

Courses within the curriculum do not have pre-requisite requirements; however, students are strongly advised to complete courses in the sequence provided below to ensure that they are adequately prepared to excel in their practicum courses and ultimately pass the CSCS exam.

Figure 1: Recommended Course Sequence for **Full-Time** MS-APK Program students in the Strength and Conditioning Practitioner Concentration seeking to complete the curriculum in ***one academic year***.

Fall semester	**Spring semester**	**Summer semester**
APK5121 Anatomy & Physiology for Sports & Exercise Practitioners (3-credits)	APK6116C Physiological Bases of Exercise and Sport Sciences (3-credits)	APK6940C Advanced Practicum in Exercise and Sport Science (6-credits)
APK5404 Sport Psychology (3-credits)	APK5702 Applied Sport Science (3-credits)	
APK6167 Nutrition Aspects of Human Performance (3-credits)	APK6226C Biomechanics of Human Motion (3-credits)	
APK6611 Tactical Strength and Conditioning (3-credits)	APK5177 Strength and Conditioning for Beginning Practitioners (3-credits)	

Figure 2: Recommended Course Sequence for **Full-Time** MS-APK Program students in the Strength and Conditioning Practitioner Concentration completing ***9-credits*** per semester

Fall semester (Year 1)	**Spring semester (Year 1)**
APK5121 Anatomy & Physiology for Sports & Exercise Practitioners (3-credits)	APK6116C Physiological Bases of Exercise and Sport Sciences (3-credits)
APK6167 Nutrition Aspects of Human Performance (3-credits)	APK6226C Biomechanics of Human Motion (3-credits)
APK6611 Tactical Strength and Conditioning (3-credits)	APK5177 Strength and Conditioning for Beginning Practitioners (3-credits)
Fall semester (Year 2)	**Spring semester (Year 2)**
APK5404 Sport Psychology (3-credits)	APK6940C Advanced Practicum in Exercise and Sport Science (3-credits)
APK6940C Advanced Practicum in Exercise and Sport Science (3-credits)	
APK5702 Applied Sport Science (3-credits)	

Figure 3: Recommended Course Sequence for **Part-Time** MS-APK Program students in the Strength and Conditioning Practitioner Concentration completing ***6-credits*** per semester

Fall semester (Year 1)	**Spring semester (Year 1)**	
APK5121 Anatomy & Physiology for Sports & Exercise Practitioners (3-credits)	APK6116C Physiological Bases of Exercise and Sport Sciences (3-credits)	
APK6167 Nutrition Aspects of Human Performance (3-credits)	APK6226C Biomechanics of Human Motion (3-credits)	
Fall semester (Year 2)	**Spring semester (Year 2)**	**Summer semester (Year 2)**
APK5404 Sport Psychology (3-credits)	APK5702 Applied Sport Science (3-credits)	APK6940C Advanced Practicum in Exercise and Sport Science (6-credits)
APK6611 Tactical Strength and Conditioning (3-credits)	APK5177 Strength and Conditioning for Beginning Practitioners (3-credits)	

Figure 4: Recommended Course Sequence for **Part-Time** MS-APK Program students in the Strength and Conditioning Practitioner Concentration completing ***3-credits*** per semester

Fall semester (Year 1)	**Spring semester (Year 1)**
APK5121 Anatomy & Physiology for Sports & Exercise Practitioners (3-credits)	APK6116C Physiological Bases of Exercise and Sport Sciences (3-credits)

Fall semester (Year 2)	**Spring semester (Year 2)**
APK6167 Nutrition Aspects of Human Performance (3-credits)	APK6226C Biomechanics of Human Motion (3-credits)
Fall semester (Year 3)	**Spring semester (Year 3)**
APK5404 Sport Psychology (3-credits)	APK5702 Applied Sport Science (3-credits)
Fall semester (Year 4)	**Spring semester (Year 4)**
APK6611 Tactical Strength and Conditioning (3-credits)	APK5177 Strength and Conditioning for Beginning Practitioners (3-credits)
Fall semester (Year 5)	**Spring semester (Year 5)**
APK6940C Advanced Practicum in Exercise and Sport Science (3-credits)	APK6940C Advanced Practicum in Exercise and Sport Science (3-credits)

3. Students whose plans do not directly align with any of the plans above, for example students who wish to complete a different number of credit hours each semester, should discuss their plans with their APK Academic Advisor but, in general, are advised to complete the curriculum according to the sequence below:

APK5121 Anatomy & Physiology for Sports & Exercise Practitioners (3-credits)
APK6167 Nutrition Aspects of Human Performance (3-credits)
APK5404 Sport Psychology (3-credits)
APK6611 Tactical Strength and Conditioning (3-credits)
APK6116C Physiological Bases of Exercise and Sport Sciences (3-credits)
APK6226C Biomechanics of Human Motion (3-credits)
APK5177 Strength and Conditioning for Beginning Practitioners (3-credits)
APK5702 Applied Sport Science (3-credits)
APK6940C Advanced Practicum in Exercise and Sport Science (6-credits)

4. Course Remediation

Per UF Graduate School Policy, any graduate student may be denied further registration if progress toward completing the program becomes unsatisfactory to the academic unit, college, or Dean of the Graduate School. Unsatisfactory scholarship is defined as failure to maintain a B average (3.00) in all work attempted. Graduate students need an overall GPA of 3.00 truncated and a 3.00 truncated GPA in their major (and in the minor, if a minor is declared) at graduation.

Based on this policy, any grade of "C" earned in the MS-APK curriculum must be balanced with a grade of "A" in another course. If a student earns a grade of "C-", "D+", "D", "D-", or "E", the student is required to re-take the course and earn a "C" or better.

Per UF Graduate School policy, coursework that is repeated will be counted in the computation of the UF grade point average as many times as grades for that course are recorded.

5. Course Syllabi

Students may review all MS-APK course syllabi on the APK Course Syllabi website.

6. CASCE Standards Curriculum Map

The MS-APK Strength and Conditioning Practitioner Concentration curriculum is designed to incorporate all academic standards required by CASCE to earn and maintain accredited status. The curriculum map below aligns all CASCE academic standards with the courses within the MS-APK curriculum in which they are assessed:

CASCE Standard	MS-APK Course Assessing Standard
III.C.1. Human Anatomy and Physiology	APK5121, APK5177, APK6611
a. Structure and Function of body systems	APK5121, APK5177, APK6611, APK6116C
b. Musculoskeletal system	APK5121, APK5177, APK6611, APK6116C
c. Neuromuscular system	APK5121, APK5177, APK6611, APK6116C
d. Cardiovascular system	APK5121, APK5177, APK6611, APK6116C
e. Respiratory system	APK5121, APK5177, APK6611, APK6116C
III.C.2. Exercise Physiology	
a. Bioenergetics of exercise and training	APK6116C, APK6167, APK5177, APK6611
b. Biological energy systems	APK6116C, APK6167, APK5177, APK6611
c. Substrate depletion and repletion	APK6116C, APK6167, APK5177, APK6611
d. Bioenergetic limiting factors in exercise performance	APK6116C, APK6167, APK5177, APK6611
e. Oxygen uptake and the aerobic and anaerobic contributions to exercise	APK6116C, APK6611
f. Metabolic specificity of training	APK6116C, APK6611
g. Endocrine responses to resistance exercise	APK6116C, APK6611
h. Synthesis, storage, and secretion of hormones	APK6116C, APK6611
i. Muscle as the target for hormonal interactions	APK6116C, APK6611
j. Role of receptors in mediating hormonal changes	APK6116C, APK6611
k. Categories of hormones	APK6116C, APK6611
l. Heavy resistance exercise and hormonal increases	APK6116C, APK6611
m. Mechanisms of hormonal interactions	APK6116C, APK6611
n. Hormonal changes in peripheral blood	APK6116C, APK6611
o. Adaptations in the endocrine system	APK6116C, APK6611
p. Primary anabolic hormones	APK6116C, APK6611
q. Adrenal hormones	APK6116C, APK6611
r. Other hormonal considerations	APK6116C, APK6611
III.C.3. Kinesiology/Biomechanics	
a. Biomechanics of resistance exercise	APK6226, APK5177
b. Skeletal musculature	APK6226, APK5177
c. Anatomical planes and major body movements	APK6226, APK5177
d. Human strength and power	APK6226, APK5177, APK5702
e. Sources of resistance to muscle contraction	APK6226, APK5177
f. Joint biomechanics: Concerns in resistance training	APK6226, APK5177, APK5702
III.C.4. Sports Nutrition	
a. Basic nutrition factors in health	APK6167
b. Role of sport nutrition professionals	APK6167
c. Standard nutrition guidellines	APK6167
d. Macronutrients	APK6167

e. Vitamins	APK6167
f. Minerals	APK6167
g. Fluid and electrolytes	APK6167
h. Nutrition strategies for maximizing performance	APK6167
i. Pre-competition, during-event, and post-competition nutrition	APK6167
j. Nutrition strategies for altering body composition	APK6167
k. Feeding and eating disorders	APK6167
l. Performance-enhancing substances and methods	APK6167
m. Types of perfomance-enhancing substances	APK6167
n. Hormones	APK6167
o. Dietary supplements	APK6167
III.C.5. Psychology of Sport and Exercise	
a. Psychology of athletic preparation and performance	APK5404
b. Role of sport psychology	APK5404
c. Ideal performance state	APK5404
d. Enegy management: arousal, anxiety, and stress	APK5404
e. Influence of arousal and anxiety on performance	APK5404
f. Motivation	APK5404, APK6611
g. Attention and focus	APK5404, APK6611
h. Psychological techniques for improved performance	APK5404, APK6611
i. Enhancing motor skill acquisition and learning	APK5404, APK6611
III.C.6. Scientific Principles of Strength and Conditioning	
a. Adaptations to anaerobic training programs	APK5177, APK6611
b. Neural adaptations	APK5177, APK6611
c. Muscular adaptations	APK5177, APK6611
d. Connective tissue adaptations	APK5177, APK6611
e. Endocrine responses and adaptations to anaerobic training	APK5177, APK6611
f. Cardiovascular and respiratory responses to anaerobic exercise	APK5177, APK6611
g. Compatibility of aerobic and anaerobic modes of training	APK5177, APK6611
h. Overtraining: definition, prevalence, diagnosis, and potential markers	APK5177, APK6611
i. Detraining	APK5177, APK6611
j. Adaptations to aerobic endurance training	APK5177
k. Acute responses to aerobic exercise	APK5177
l. Chronic adaptations to aerobic exercise	APK5177
m. External and individual factors influencing adaptations to aerobic endurance training	APK5177
n. Age and sex-related differences and their implications for resistance training	APK5177
o. Children	APK5177
p. Female Athletes	APK5177
q. Older adults	APK5177
r. Rehabilitation and reconditioning	APK6611
s. Types of injury	APK6611

t. Tissue healing	APK6611
u. Rehabilitation and reconditioning strategies	APK6611
v. Program Design	APK6611
w. Reducing risk of injury and reinjury	APK6611
III.C.7. Resistance Training and Conditioning (Practical/Laboratory)	
a. Warm-up and flexibility training	APK5177, APK6611, APK6940C
b. Types of stretching	APK5177, APK6611, APK6940C
c. Static stretching techniques	APK5177, APK6611, APK6940C
d. Dynamic stretching techniques	APK5177, APK6611, APK6940C
e. Exercise technique for free-weight and machine training	APK5177, APK6611, APK6940C
f. Fundamentals of exercise technique	APK5177, APK6611, APK6940C
g. Spotting free-weight exercises	APK5177, APK6611, APK6940C
h. Resistance training exercises	APK5177, APK6611, APK6940C
i. Olympic-style lifting techniques: progressions and regressions	APK5177, APK6611, APK6940C
j. Exercise technique for alternative modes and nontraditional implement training	APK5177, APK6940C
k. Bodyweight training methods	APK5177, APK6611, APK6940C
l. Core stability and balance training methods	APK5177, APK6611, APK6940C
m. Variable-resistance training methods	APK5177, APK6940C
n. Unilateral training	APK5177, APK6940C
o. Alternative modes and nontraditional exercises	APK5177, APK6940C
III.C.8. Exercise Testing/Exercise Prescription with Emphasis in Anaerobic Exercise	
a. Principles of test selection and administration	APK5177, APK6611, APK6940C
b. Reasons for testing	APK5177, APK6611, APK6940C
c. Testing terminology	APK5177, APK6611, APK6940C
d. Evaluation fo test quality	APK5177, APK6611, APK6940C
e. Test selection	APK5177, APK6611, APK6940C
f. Test administration	APK5177, APK6611, APK6940C
g. Administration, scoring, and interpretation of selected tests	APK5177, APK6611, APK6940C
h. Measuring parameters of athletic performance	APK5177, APK6611, APK6940C
i. Selected test protocols and scoring data	APK5177, APK6611, APK6940C
j. Statistical evaluation of test data	APK5177, APK6611, APK6940C, APK5702
III.C.9. Program Design as Related to Strength and Conditioning	
a. Program design for resistance training	APK5177, APK6611, APK6940C
b.i. Step1: Needs Analysis	APK5177, APK6611
b.ii. Step 2: Exercise Selection	APK5177, APK6611
b.iii. Step 3: Training frequency	APK5177, APK6611
b.iv. Step 4: Exercise Order	APK5177, APK6611
b.v. Step 5: Training load and repetitions	APK5177, APK6611
b.vi. Step 6: Volume	APK5177, APK6611
b.vii. Step 7: Rest Intervals	APK5177, APK6611
c.Program design and technique for plyometric training	APK5177, APK6611

c.i. Plyometric mechanics and physiology	APK5177, APK6611, APK6940C
c.ii. Design of plyometric training programs	APK5177, APK6611, APK6940C
c.iii. Age considerations	APK5177, APK6611
c.iv. Plyometrics and other forms of exercise	APK5177, APK6611
c.v. Safety considerations	APK5177, APK6611, APK6940C
c.vi. Plyometric drills	APK5177, APK6611, APK6940C
d. Program design and technique for speed and agility training	APK5177, APK6611, APK6940C
d.i. Speed and agility mechanics	APK5177, APK6611, APK6940C
d.ii. Neurophysiological basis for speed	APK5177, APK6611
d.iii. Running speed	APK5177, APK6611
d.iv. Agility performance and change-of-direction ability	APK5177, APK6611, APK6940C
d.v. Methods of developing speed	APK5177, APK6611, APK6940C
d.vi. Methods of developing agility	APK5177, APK6611, APK6940C
d.vii. Program design	APK5177, APK6611, APK6940C
d.viii. Speed development strategies	APK5177, APK6611, APK6940C
d.ix. Agility development strategies	APK5177, APK6611, APK6940C
d.x. Speed and agility drills	APK5177, APK6611, APK6940C
e. Program design and technique for aerobic endurance training	APK5177, APK6611, APK6940C
e.i. Factors related to aerobic endurance performance	APK5177, APK6611
e.ii. Designing an aerobic endurance program	APK5177, APK6611, APK6940C
e.iii. Types of aerobic endurance training programs	APK5177, APK6611
e.iv. Application of program design to training seasons	APK5177, APK6611
e.v. Special issues related to aerobic endurance training	APK5177, APK6611
e.vi. Aerobic endurance training exercise	APK5177, APK6611, APK6940C
e.vii. Periodization	APK5177, APK6611, APK6940C
e.viii. Central concepts related to periodization	APK5177, APK6611, APK6940C
e.ix. Periodization hierarchy	APK5177, APK6611
e.x. Periodization periods	APK5177, APK6611
e.xi. Applying sport seasons to the periodization periods	APK5177, APK6611
e.xii. Undulating versus linear periodization models	APK5177, APK6611
e.xiii. Example of an annual training plan	APK5177, APK6611
III.C.10. Program organization, administration, and oversight	
a. Facility design, layout, and organization	APK5177, APK6611
b. General aspects of new facility design	APK5177, APK6611
c. Existing strength and conditioning facilities	APK5177, APK6611
d. Assessing athletic program needs	APK5177, APK6611
e. Designing the strength and conditioning facility	APK5177, APK6611
f. Arranging equipment in the strength and conditioning facility	APK5177, APK6611
g. Maintaining and cleaning surfaces and equipment	APK5177, APK6611
h. Facility policies, procedures, and legal issues	APK5177, APK6611
i. Mission statement and program goals	APK5177, APK6611
j. Legal and ethical issues	APK5177, APK6611
k. Staff policies and activities	APK5177, APK6611

l. Facility administration	APK5177, APK6611
m. Emergency planning and response	APK5177, APK6611

7. MS-APK Entry Level Strength and Conditioning Concentration SLO Curriculum Map

	MS-APK Entry Level Strength and Conditioning Concentration Curriculum								
	APK5121	**APK5404**	**APK5702**	**APK5711**	**APK6116C**	**APK6167**	**APK6226C**	**APK6611**	**APK6940C**
1. Student can integrate principles and methods of math, social sciences, and arts and humanities to applied physiology and kinesiology, wellness, and/or fitness environments.			x			x	x		x
2. Student can identify and relate the nomenclature, structures, and locations of components of human anatomy to health, disease, and physical activity.	x			x				x	x
3. Student can identify, examine, and explain physiological mechanisms of homeostasis at various levels of an organism (i.e. cells, tissues, organs, systems).	x		x	x	x			x	X
4. Student can investigate and explain the effects of physical activity on psychological health as well as the perspectives used to enhance adherence to healthier lifestyles.		x						x	X

5. Student can identify and explain the acute and chronic anatomical and physiological adaptations to exercise, training, and physical activity.				x	x			x	x
6. Student can select and utilize the appropriate scientific principles when assessing the health and fitness of an individual and prescribing physical activity based on those assessments.			x	x				x	x
7. Student can solve applied physiology and kinesiology problems from personal, scholarly, and professional perspectives using fundamental concepts of health and exercise, scientific inquiry, and analytical, critical, and creative thinking.			X				x	x	x
8. Student can collect, compare, and interpret qualitative or quantitative data in an applied physiology and kinesiology context.			x	x		x	x	x	X
9. Student can effectively employ written, oral, visual, and electronic communication techniques to foster inquiry, collaboration, and engagement among applied physiology			x			x	x		x

and kinesiology peers and professionals as well as with patients, clients, and/or subjects									

8. Field Experience

i. Field Experiences in the Strength and Conditioning Practitioner Concentration are designed to allow students to progressively apply their knowledge, skills, and abilities in accordance with the areas of instruction listed in Standard III.C of the CASCE Standards and Guidelines. Students are permitted to enroll in APK6940C (Advanced Practicum in Exercise and Sport Science) upon completion of APK5121 (Anatomy and Physiology for Sport and Exercise Practitioners), APK6116C (Physiological Basis of Exercise), APK6226C (Biomechanics), APK5177 (Strength and Conditioning for Beginning Practitioners), and APK6611 (Tactical Strength and Conditioning). This affords students the opportunity to apply the knowledge and skills acquired during their enrollment in the concentration. Students are required to complete a total of 6-credits of APK6940 and may complete all six credits in a single semester or complete the course for 3-credits over two semesters. Each registered credit of APK6940C requires a minimum of 50 direct contact hours at the practicum site under the guidance of the practicum supervisor. Upon completion of six credits of APK6940C, students in the Strength and Conditioning Practitioner Concentration will have earned a minimum of 300 practical hours in accordance with CASCE Standards. Field experience site supervisors use a program-generated assessment instrument to evaluate each student's ability to engage in practical application of their strength and conditioning knowledge, skills, and abilities including: warm-up, flexibility training, resistance training exercise technique, spotting, Olympic-style weightlifting, progressions and regressions, test selection and administration, resistance training program design, speed and agility exercise technique, plyometric exercise technique, anaerobic and aerobic conditioning program design, and periodization. In addition to this technical content, students apply and are assessed on disciplinary professionalism, communication, conduct, and ethics.

ii. Per CASCE Standard III.D.4, students are required to complete a minimum of two substantially different experiences that include two or more of the following categories: sport, gender, age range, or other. Students are required to have two different supervisors during the two distinct experiences, complete a minimum of 75 hours per experience with one experience being at least 6 weeks in length. Students are not required to complete their practicum at two different sites so long as they can meet these CASCE standards. Students may complete the two distinct experiences in the same academic semester when registered for 6-credits of APK6940C or may choose to split the distinct experiences over two semesters by registering for 3-credits of APK6940C in both semesters. In

addition, the field experience must minimally include the following key areas: warm-up, flexibility training, exercise technique, spotting, Olympic-style lifting, progressions/regressions, test selection and administration, program design, speed/agility/plyometric training, anaerobic and aerobic program design, and periodization.

iii. Students are added to the APK Pre-Field Experience course in Canvas in their first semester of study in the program. This non-credit course contains six modules fully describing the APK Practicum Policies and Procedures Manual and the step-by-step instructions for securing a Practicum.

iv. The APK Department maintains a list of approved Practicum sites whose site supervisors have completed training to ensure they are aware of, and capable of meeting, CASCE standards and who have a current Affiliation Agreement with the department. Students may choose from the APK list of approved Practicum sites or solicit a new site for approval.

v. Students may solicit new Practicum sites by following the instructions provided on the MS-APK Pre-Field Experience course in Canvas. Note that the prospective site supervisor at any new practicum site must complete the online Practicum Site Approval Form, complete the online APK Practicum Site Supervisor Training Module, and sign the APK Memorandum of Understanding for the site to be approved. While paid practicum experiences are permitted, the MS-APK program does not currently offer any paid practicum opportunities.

IV. Outcomes

1. Program Outcomes

The Program Director and program faculty, in collaboration with the College of Health and Human Performance Director of Assessment and Student Services and the UF Office of Institutional Assessment, engage in continuous assessment of student outcomes, program outcomes, instruction, field experiences, and retention and graduation rates. The Program Director is responsible for preparing and submitting an annual student learning outcome assessment report and a Program Outcomes Assessment report. The Program Director will also be responsible for preparing and submitting annual accreditation reports including student and program outcomes.

A. **MS-APK Program Goals**

1. Provide quality core courses that furnish foundational knowledge, skills and abilities in applied physiology and kinesiology.

2. Provide quality elective courses that result in strong discipline specific knowledge, skills, and abilities in areas related to career interests of the students.

3. Ensure quality practical experiences that allow students to apply foundational knowledge, skills, and abilities and to further develop critical thinking and communication skills and multicultural sensitivity under the supervision of field experts in a variety of settings.

4. Revise MS-APK curriculum and degree requirements to better reflect the changing needs of the profession.
5. Increase the quality and quantity of applicants to our programs.
6. Maintain and continue to improve the success of the program.

B. **MS-APK Student Learning Outcomes**

1. Knowledge – Discuss, explain, and defend subject matter relevant to the strength and conditioning discipline

    i. Assessment method – Successful comprehensive final exam per department standards and guidelines

2. Skills – Discuss, explain, and defend in strength and conditioning discipline specific skills.

    i. Assessment method – Successful completion of practicum courses and demonstration of practical competencies per department standards and guidelines

3. Professionalism – Display ethical behavior, cultural sensitivity, teamwork, professional conduct, and professional communication.

    i. Assessment method - Evaluation of performance in practicum courses and demonstration of practical competencies per department standards and guidelines.

C. **MS-APK Student Learning Objectives**

1. Student can integrate principles and methods of math, social sciences, and arts and humanities to applied physiology and kinesiology, wellness, and/or fitness environments.
2. Student can identify and relate the nomenclature, structures, and locations of components of human anatomy to health, disease, and physical activity.
3. Student can identify, examine, and explain physiological mechanisms of homeostasis at various levels of an organism (i.e. cells, tissues, organs, systems).
4. Student can investigate and explain the effects of physical activity on psychological health as well as the perspectives used to enhance adherence to healthier lifestyles.
5. Student can identify and explain the acute and chronic anatomical and physiological adaptations to exercise, training, and physical activity.
6. Student can select and utilize the appropriate scientific principles when assessing the health and fitness of an individual and prescribing physical activity based on those assessments.
7. Student can solve applied physiology and kinesiology problems from personal, scholarly, and professional perspectives using fundamental concepts of health and exercise, scientific inquiry, and analytical, critical, and creative thinking.
8. Student can collect, compare, and interpret qualitative or quantitative data in an applied physiology and kinesiology context.
9. Student can effectively employ written, oral, visual, and electronic communication techniques to foster inquiry, collaboration, and engagement

among applied physiology and kinesiology peers and professionals as well as with patients, clients, and/or subjects.

Information regarding admissions criteria, student enrollment, graduation rate, retention rate, CSCS pass rate, and graduate placement rate may be found on the APK website.

V. Resources

1. Academic Advising

i. The Department of Applied Physiology and Kinesiology utilizes a hybrid model for non-thesis MS-APK student advising. Students are assigned to one of five instructional faculty members for academic advising. Faculty advisors are responsible for advising related to academic success, progression in the concentration, experiential learning, and career planning. Advisors use myUFL to assess progression towards degree completion and to develop the plan of study. All students in the program are enrolled in a Canvas page dedicated to advising. The myUFL system is also utilized for academic early alerts and maintenance of advising notes.

ii. MS-APK Faculty Academic Advisors

1. Blain Harrison, Ph.D, CSCS*D
2. Ben Gordon, Ph.D, CSCS, ACSM CEP
3. Anna Gardner, Ph.D
4. Max Adolphs, Ph.D
5. Paul Borsa, Ph.D

2. Academic Support

The University of Florida offers an Office of Academic Support providing tutoring services and academic success workshops, a Disability Resource Center providing accommodation services to students including low distraction testing environments, screen reading technology, additional time for assessments, note-takers, and more, a Student Financial Affairs office provides students with a comprehensive resource for financial aid and loans including assistance with estimating costs, applying for aid, and maintaining aid, a Career Connections Center to aid students with skills necessary to secure a job after graduation, and U Matter We Care office offering crisis counseling services among many others. Scholarships - The College of Health and Human Performance maintains a robust database of internal and external, merit-based and need-based scholarships via a scholarship portal that facilitates each student's ability to identify and apply for scholarships. Veteran's Services - UF offers an Office of Student Veteran Services to "serve as the liaison between the University of Florida, its students, and the various federal, state, and local agencies concerned with the processing of VA Educational Benefits." A complete list of student support offices offered at UF is provided in the UF Graduate Catalog.

3. Support Staff

The Strength and Conditioning Practitioner Concentration within the M.S. APK degree program in the Department of Applied Physiology and Kinesiology is supported by robust administrative, secretarial, and technical resources, at the department, college, and university levels.

i. **Department Level Support**

The concentration is supported by an Administrative Office Manager and Office Assistant who contribute to communication with prospective and current students, academic scheduling, space reservation and utilization, and other related tasks.

ii. **College Level Support**

The concentration is supported by the administrative offices of the College of Health and Human Performance: 1. The Director of Enrollment Management & Operations collects, analyzes, and reports data related to enrollment, retention, progression, and graduation. 2. The Associate Dean for Academic and Student Affairs supports the program by enforcing college and university policies and procedures including student petitions and appeals. 3. The Associate Director of Marketing and Communications for Recruitment and Student Success supports branding, recruitment, marketing, website maintenance, and the social media presence of the program. 4. The Director of Assessment & Student Services supports the collection of program goal and student learning outcome data for accrediting body reporting purposes. 5. The HHP Instructional Designer supports instructional course design for faculty teaching in both the residential and online versions of the concentration.

4. Academic Resources

The George A. Smathers Libraries at the University of Florida house subject librarians for each college at UF. The subject librarian for the College of Health and Human Performance provides direct support to students in the Strength and Conditioning Practitioner Concentration. The subject librarian is available for in-person or virtual consultations for in-depth, subject-specific research help. The subject librarian is also available to support the research and scholarship needs of program faculty. The libraries offer a multitude of services including: 1. Reservable study rooms 2. Classrooms 3. Group and single study spaces 4. Printing and scanning stations 5. Help desks 6. Technology spaces 7. Interview spaces 8. Subject databases 9. Research Guides 10. Desktop and laptop computers.

VI. Policies

1. Graduate Catalog

MS-APK students are encouraged to review the UF Graduate Catalog for a complete list of university and program policies that pertain to them.

2. UF Academic Calendar

The UF Academic Calendar for past, present, and future years is found here.

3. UF Grading Policy

The UF Grading Policy is found in the Graduate Academic Regulations section of the UF Graduate Catalog.

4. **Student Financial Aid**

   Information related to student financial aid concerns is found on the UF Office of Student Financial Aid and Scholarships website.

5. **Program Tuition**

   Tuition and fees for the UF Graduate School are outlined here.

6. **Withdrawal Policy**

   Information regarding withdrawing from individual courses or from UF is found on the Office of the University Registrar's website.

7. **Remediation Policy**

   The policy regarding course remediation is found in the Graduate Academic Regulations section of the UF Graduate Catalog.

8. **Student Grievances**

   The Student Grievance Procedure is outlined in UF Regulation 4.012 and can be reviewed at the online UF Regulation and Policy Hub.

9. **Student privacy**

   Student privacy is ensured through UF's enforcement of the Family Education Rights & Privacy Act of 1974. See the UF Registrar's Office website for details.

10. **Program's Accreditation Status**

    The CASCE accreditation status of the MS-APK Entry Level Strength and Conditioning Concentration is displayed on the program's website and on the NSCA's website.