

XIII Sports Performance

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A. APPLIED HEALTH AND PERFORMANCE SCIENCE

I. Mission Statement

Our mission is to positively impact athlete and team performance by focusing on foundations of health and lifestyle while using science to inform decision-making pertaining to athlete development.

II. Strategic Vision

The long-term vision of the Penn State Applied Health & Performance Science Department is to be a leader in high-performance sports preparation in the Big Ten Conference and the NCAA. To achieve this vision, there will be continued collaboration with stakeholders in the academic community at Penn State University and members of elite-level sport around the globe. A focus on *inquiry, growth, and staff continuity* is critical for long-term success of the unit.

III. Departmental Charge: Learn → Innovate → Share

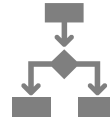


Learn	Innovate	Share
-Research and development	-Creation of training heuristics	-Drive a learning community of open-access knowledge
-Professional development	-High-performance structures	-Disseminate findings to Penn State sport coaches and staff
-Internal data collection	-Create systems and skeletons for use	-Drive development and performance
-Data driven decisions	-Organize information and simplify	

IV. Applied Health & Performance Science: Departmental Divisions and Services

In elite level sport, **Performance Science** is extremely dynamic and ever-changing. There are many subdivisions within the field that include areas of physiology, biomechanics, sport technology, data science, sport pedagogy, and operations that ensure consistent and repeatable testing and evaluation practices. Additionally, the **Applied Health** field extends to many areas of athlete development (physical, social, intellectual, emotional, occupational, spiritual) that often lay the foundation for later athlete development and subsequent performance.

To handle the expansive reach of the field, the Penn State Applied Health & Performance Science department is broken into four divisions. Within each of these divisions are services that are *realistic, repeatable, and scalable*.



Performance Technology	Data Science	Performance Operations	Learning & Development
-Manage technology in AHPS Performance Lab	-Standardize data collection	-Build frameworks for efficiency	-Design athlete development plans
-Build expertise with common technology at PSU	-Optimize data management and usage for presentation	-Standardized protocols and procedures	-Practice/training design
-Assist with technology procurement decision-making	-Drive data analysis and visualization	-Design templates for decision-making	-Teach sport pedagogy and skill acquisition
-R&D new technology	-Use data to inform decision-making	-Increase operational output through internship program	-Grow learning organization through Performance School and Performance Academy

Departmental Philosophy: Health, Wellness, & High-Performance

To provide the most comprehensive developmental environment possible, the Applied Health & Performance Science Department exists by focusing first on the Health & Lifestyle of the athlete and the coach when working to achieve high-performance. To work toward elite levels of development, there exists a three-step approach.

Long-Term Development of the Elite Athlete:

Step 1 - Lay the Foundation and Design a Long-Term Developmental Experience: "The Person"

What: The development of the person as the foundation of long-term athlete development

Why: Healthy Lifestyles + Positive Choice = Foundation for Development

How: Education that focuses on impacting behavior change and a plan that maximizes athlete development

- **Health & Lifestyle:** the foundation of elite performance
- **Positive Choice:** building great habits leads to consistent performance and high-level physical output
- **Learning to Train, Compete, and Win:** Learning to choose to be 1-0 each day
- **Long-Term Planning:** designing team and individualized plans with graduated competencies and benchmarks

Step 2 - Build the Engine: "The Athlete"

What: Optimal dosage of training, practice, and competition to develop elite levels of performance

Why: Optimal dosage maximizes the development of the athlete while minimizing the risk of injury

How: Workload is managed through technology, systems-based decision making, and communication

- **Technology Systems:** monitor training dosage and athlete response to stimulus

- **Individualized Recovery Plans:** based on need, workload, and time of year/career
- **Advanced Periodization:** ongoing planning based upon monitoring athlete response
- **Performance Team:** consistent communication and collaboration between the Sports Performance Team

Step 3 - Optimize for Performance: "The Professional"

What: Special planning to remain sharp and in an optimal state to achieve consistent, elite-level performance

Why: To achieve high-level performance, all systems must be fully functional

How: High Performance is managed through individualized, daily monitoring of athlete movement and health

- **Workload Management:** manage practice, training, and competition workload for long-term performance
- **Individualized Training Consultation:** training based on need to maximize strengths and improve limiting factors
- **Recovery Fluency:** comprehension of personal need for recovery and restoration
- **Research & Development:** continuous exploration of best practices in high-level performance
- **Educated Professional:** teach athlete to make informed decisions when they reach the professional level

B. NUTRITION

The Performance Nutrition Department is led by a team of Registered Dietitians who serve as members of the Sports Performance Team. A Registered Dietitians (RD) or Registered Dietitians Nutritionist (RDN) is *a food and nutrition experts who can translate the science of nutrition into practical solutions for health, wellbeing, and sport performance. This is not to be confused with a nutritionist who typically has no formal degree or licensure.*

FUEL STATIONS:

- **Purpose:** Food and hydration stations (fuel stations) are placed throughout various training facilities to encourage proper nutrition or “fueling” for training sessions (i.e., lift, practice, etc.). Fuel stations provide the student-athlete with optimal energy to meet the demands of their training and recovery. They also provide a learning environment for nutrition education and exploration. The available products at the fuel stations are tailored to meet specific nutrient requirements and serve the below purposes and are NOT meal substitutes or used as a grocery store.
 - Pre-workout
 - During workout
 - Post-workout
 - Enhancements : Electrolytes, Vitamins, Cherry Juice...

- **Locations:** There are 11 fuel stations across our campus.
Rec Hall, Bryce Jordan Center, Lasch Complex, East Area Locker Room, Pegula Ice Arena, McCoy Natatorium, Tombros, White, Multisport, Beard Field, Medlar Field
- **Operation:** Because of the complexity of the fuel station operation, funding for all products is held by the Nutrition Department. At the beginning of each fiscal year, the Nutrition Department allots “X” amount of funds to each of the 11 respective locations to purchase “approved” products. Each facility has a designated fuel station manager or team of support staff individuals who oversee the purchasing of goods, stocking, inventory, and dissemination of goods. This role is typically held by a support staff member (strength and conditioning, athletic training, director of operations, or assistant coach) who is primarily housed in the space and serves as the communication liaison between the performance nutrition department and respective fueling location. Food funding is prioritized around competition seasons during the traditional fall and spring semesters; summer is supplemental.
- **Approved Products:** Products that the fuel station manager stocks are purchased at Sam’s Club and local grocers. The approved product list is communicated to the fuel manager and updated throughout the year. Products that fall outside of this list that has not received special permission to purchase by a nutrition staff member will not be supported by the nutrition budget. The purchasing party will be responsible for the funding of goods through the team budget.
- **Specialty Products:** The Performance Nutrition Department also orders and distributes specialty nutrition products that cannot be purchased locally. These items are often specific ergogenic aids that are ordered directly through the company and delivered across the 11 fuel stations based on need. NO product is to be ordered from outside companies without permission by a nutrition staff member. If a product is purchased without approval, it will be rejected, and the purchasing party will be responsible for the funding of goods through the team budget.
- **Sponsored Partners:** There are two major sponsors.
 - Honey Stinger: <https://honeystinger.com>
 - Gatorade: <https://www.gatorade.com>
 - This is a shared purchasing operation between sports medicine and nutrition.
- **Competition and Travel Nutrition**
 - All food for travel falls on the team budget. The exception to this would be a specialty product that cannot be purchased at a grocery store (i.e. Honey Stinger, electrolyte packets, etc). The nutrition staff will provide guidance and education for all aspects of eating and hydrating on the road. This includes assistance with menus, building optimal travel snack bags, competition nutrition (pre-during-post), recovery meal guidance, and hydration best practices.

- The Nutrition Department is included in the comprehensive Weather Delay Plan and can be contacted to help navigate the situation's unique nutrition and hydration needs.
- **TEAM MEALS:**
 - Currently, there is no centralized dining facility or solution for our 31 sports programs, and each team handles meals differently. When modifying your sports team meal situation, it is important to communicate with the nutrition department, your sports administrator, compliance, and your business office representative to see if and how the meal adjustment may fit your program. The nutrition department does not support any meals; all meals fall on the sports budget.
 - **Training Table Meals** – although the term is antiquated, many programs still refer to enhanced team meals as 'training table.' At Penn State, some sports programs have been budgeted to provide these additional meals to all team members during their competition season. Meal funds should be reserved for active rosters and, if funds allow, limited to student managers, practice players, and interns. Meal situations vary drastically from team to team, so working with your team dietitian to better understand your dining situation, menu/meal capabilities, and a performance-based menu is recommended.
 - **Moocho** is a meal app that can provide food funds in the place of meals or traditional per diem. It also offers a flexible way to support the additional calorie needs of athletes by providing snack or calorie enhancement funds. Moocho is limited to only food purchases at select nutrition-approved restaurants and local grocery stores. Moocho is the preferred method of meal money distribution over holidays and breaks and can have a cost-saving aspect to your sports program. The cost-saving comes from only being billed for what an athlete spends and not the entire allotted amount (per diem). To set up Moocho for your team, please work with the nutrition department.
- **BODY COMPOSITION, WEIGHTS, and BODY IMAGE:**
 - Discussion around body weight, body composition, or body image by a coach is inappropriate and should be handled by a member of the nutrition or medical staff.
 - **Body Weight:** Bodyweight may be periodically checked as a part of a medical check-up or to assess hydration status and should be conducted by a designated performance staff (i.e., S&C, ATC). A student cannot be forced to check or see his/her body weight if they are not comfortable and is not medically warranted. It is unacceptable for members of the coaching staff to check weights; the only exception would be a sport that requires a known weight to compete (i.e., wrestling).
 - Weights should never be checked in an open space. They should not be shared amongst team members or displayed for visibility.

- If individuals wish to change their body weight, research recommends no more than a two-pound change per week. He/she should be referred to the dietitian to ensure changes occur at a healthy rate and manner.
 - **Body Composition:** Body composition testing is conducted on a team-by-team or individual basis via the Bod Pod. The Bod Pod machine technology uses air displacement plethysmograph and whole-body densitometry to determine fat mass (body fat) and fat-free mass. There are two machines on campus (Rec Hall, Lasch).
 - Testing cannot be made not mandatory unless there is an underlying medical concern or ordered by a physician.
 - Test results do not dictate performance outcomes or competition decisions; they aid in assessing trends that may affect health or performance. Results are not distributed to coaches. However, if deemed appropriate by the dietitian, general trends or flagged health markers may be shared to support the overall health and wellbeing of the athlete and sports program. Information may be situationally shared with members of the sport performance team.
 - Tests are conducted by members of the Performance Nutrition staff and results are read by the registered dietitians.
- **EDUCATION and COUNSELING:**
 - All nutrition education and fueling recommendations are to come from the Performance Nutrition Department.
 - Each team is assigned a primary Registered Dietitian, and nutrition education and counseling is available through them.
 - Registered Dietitians are clinicians and can provide medical nutrition therapy. Penn State's nutrition team focuses on assessing the person's health first and their athletic performance second.
 - Consultations can be requested for various reasons, including but not limited to general health, performance, injury recovery/prevention, disordered eating/eating disorders, digestive health, bodyweight, or composition goals, etc. In conjunction with members of sports medicine and the campus health center, the dietitians work together to provide comprehensive care to those struggling with disordered eating and eating disorders. An eating disorder care team is often formed to support those in need. This typically includes the team dietitian, team physician, athletic trainer, and HEALS (Healthy Eating and Living Support) members such as an ED physician and counselor. Cases are typically managed by the team physician and guided by the Registered Dietitian.
- **SUPPLEMENTS/ NCAA BANNED DRUG LIST:**
 - Penn State takes a food-first approach and believes that the nutritional needs of student-athletes should be met through their diet, not supplementation.
 - In accordance with NCAA Division I Bylaw 12, Penn State has appointed the Performance Nutrition Department as the primary resource for questions involving nutrition supplements.

- The NCAA has a “20XX- 20XX Banned Substance List” that is updated each year. The latest list can be found here. <https://www.ncaa.org/sport-science-institute/topics/2020-21-ncaa-banned-substances>
- Athletes are educated on the NCAA Banned Substance list during their Penn State onboarding by the nutrition department, sports medicine, and student welfare and development. Thus, education is ongoing and ever-changing.
- Student-athletes must comply with the NCAA Banned Substance policy to ensure safety and eligibility in sport. The athletes' responsibility is to have supplements reviewed by the nutrition or sports medicine staff before purchasing or consuming. Negligence is not an excuse.
- Please refer to Penn State's Drug Testing Policy for more information on how Penn State and the NCAA test for banned substances and their respective penalties for consumption.
- A coach or sports program cannot purchase any supplement, ergogenic aid, vitamin, or sport enhancement product for their student-athletes.

C. PERFORMANCE PSYCHOLOGY

SPORT PERFORMANCE TEAM MISSION:

The mission of the Sport Performance Team is to educate and mentor student-athletes, coaches, service providers, and administrators on evidence-based best practices in health, welfare, development, and performance in order to prepare our student-athletes for a lifetime of impact.

PERFORMANCE PSYCHOLOGY DEPARTMENT

Name: Carl J. Ohlson, Ph.D.

Position: Assistant Athletic Director for Performance Psychology Services

Certifications:

CPMC - Certified Mental Performance Consultant

PSIA – Professional Ski Instructors of America

Contact details:

Email – cjo129@psu.edu

Phone – (814) 865-4396

Name: Adrianna Napoletano, M.Ed.

Position: Assistant Director of Performance Psychology Services

Certifications:

CPMC - Certified Mental Performance Consultant

MSPE – Mindful Sport Performance Enhancement Instructor

Contact details:

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Philosophy:

Everything starts with a thought, and the quality of that thought has a lot to do with what comes next; excellence, therefore, begins in the mind. We start with cultivating a “Championship Mindset” – an attitude and belief system to own and bring with you to everything you do...before anything takes place. However, even the best performers in the world may face doubt, fear, distraction, failure, or other setbacks, so they work on the mental aspects of their craft just as they work on the physical and tactical aspects. Working on your mental skills is a sign of strength, and these skills can always improve. Deliberately engaging in these “Championship Thinking” skills necessitates intentional emphasis on preparation, execution, and review in all endeavors, and all within a culture of excellence. Over time, the “Championship Mindset” that is reinforced with “Championship Thinking” can result in “Championship Habits” – excellence is who we are and what we do!

Primary Services

Student-athlete needs analyses.

Coach mentorship on performance psychology to shape immediate team impact.

Resource/sounding board for coaches, teams, and support staff for mental skills concepts and techniques.

Supporting/Reinforcing Services

Education for team culture development, sustainment (and reset, if needed).

Mental skills education for coaches, teams, and support staff.

Mental skills integration with coaching and support services.

Supplemental Services

Individualized mental skills coaching for responding to adversity or breaking through to new heights.

Methods for transferring skills to life outside of athletics.

For assistance with questions or concerns pertaining to student-athlete mental health & wellness, please use the following link (insert link here) to learn more about our strategic partners in CAPS

Penn State Counseling and Psychological Services (CAPS)

501 Student Health Center

Hours: Monday-Friday, 8AM-5PM

Phone: 814-863-0395

Penn State Crisis Line (avail 24/7): 1-877-229-6400

CAPS is the primary unit on campus that serves to improve overall mental well-being for all Penn State students, including varsity student-athletes. CAPS services are confidential in nature with options for short-term individual therapy, group therapy, medication management, urgent services, referrals to off-campus mental health resources as needed, along with a-synchronous and self-help resources.

Referring to Mental Health Services at CAPS

Referring an athlete to CAPS is easy. Because successful mental health treatment best occurs when the student is internally motivated to seek services, the student must call CAPS to initiate services. All you need to do is below:

- 1) Give the athlete CAPS phone number and tell them to call and ask to schedule an “Athlete Phone Screen.” CAPS can be reached by calling 814-863-0395 from 8AM-5PM, Monday-Friday.
- 2) *Optional.* If your athlete consents, together you can complete and submit an electronic Athlete Referral Form. This form would allow CAPS to potentially share information back to you regarding the athlete’s attendance, medication (if it’s needed), and treatment disposition (when sharing this information is relevant to clinical treatment). The athlete must read and provide their e-signature on the form; and there is information for you, the referring professional, to input as well. *Again*, this is an optional step and not necessary for athletes to receive care at CAPS (and can be submitted at any point). Below you’ll find the link and password to access and submit this form with the athlete.
Link: <https://psu-universitypark.titaniumhwc.com/athletereferral>
Password: capsfall2020

*It’s important to note that even if the athlete does not give you permission to know about their treatment at CAPS, you are ALWAYS welcome to share what you know about the athlete with their clinician. All you would need to do is call and ask to speak with a clinician to share what you’d like.

CAPS Mental Health Emergency Services:

The following situations constitute emergency situations:

- Suicidal thoughts or behaviors
- Homicidal thoughts or behaviors
- Self-harm or intentional self-injury (examples: cutting, burning, restricting food intake)
- Recent physical or sexual assault
- Hearing or seeing things that do not exist in reality
- Serious signs of an eating disorder

If your athlete is currently in or recently experienced an emergency, have them call CAPS as soon as possible and tell them to ask for an “Urgent Appointment” at 814-863-0395. You are welcome to be with them to provide support as they make the call. The athlete should prioritize canceling other items in their schedule to attend the Urgent as it could be a life-threatening situation.

If an emergency has occurred after-hours, please call the 24/7 Penn State Crisis Line at 1-877-229-6400

*****If the emergency is currently life threatening where seconds count, bypass CAPS and either call 911 or get the athlete to the emergency room right away. While their mental health is of course important, if they are in life threatening danger their physical health needs to take precedent. *****

Consulting with CAPS

If you're not sure what to do about a situation and would like some guidance, or if you would like to share information about a student-athlete, you are always welcome to call 814-863-0395 and ask to speak with Dr. Nicole DeFerrari, Intercollegiate Athletics Psychologist. If she is unavailable, you are welcome to leave a message and she will get back to you; however, if the consult is related to an emergency situation, please ask to speak with another staff member right away.

More Information about CAPS and Our Athletics Partners

**For more details about CAPS services, please check-out our website at:

<https://studentaffairs.psu.edu/counseling>

or

**Find us, along with all our fellow members and strategic partners on the Penn State Sport Performance Team, at the following website. We're located under the "Mental Health & Wellness" tab: <https://gopsusports.com/sport-performance/>

**For information about services with our partners in Performance Psychology, please refer to the Performance Psychology Department section located in this policy manual/click this link (or click the Sport Performance link above and click on the "Performance Psychology" tab).

D. SPORTS MEDICINE

https://gopsusports.com/documents/2022/5/6/Sports_Med_ICA_Staff_Policies_2022.pdf

E. STRENGTH AND CONDITIONING

Under Construction

F. STUDENT-ATHLETE WELFARE AND DEVELOPMENT

Under Construction