

ROWAN UNIVERSITY

DEPARTMENT OF HEALTH AND EXERCISE SCIENCE

*EXERCISE SCIENCE*

*(FORMERLY HUMAN PERFORMANCE IN CLINICAL SETTINGS)*

*STUDENT HANDBOOK*

Fall 2019

James Hall  
201 Mullica Hill Rd.  
Glassboro, NJ 08028

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Dear prospective or current student,

Thank you for your interest in the Exercise Science program. *Please note as of Fall 2019 the “Human Performance in Clinical Settings” major name has changed to “Exercise Science”. The program requirements, courses, and guidelines remain the same, only the name has changed.* This handbook is designed to be a practical guide throughout your years in the major and attempts to answer the many questions you may have. For the prospective student, this handbook is also useful in helping you decide if the Exercise Science field is right for you and if this major will meet your needs. Please do not hesitate to contact the faculty or administrative staff within the department with any questions not answered by this handbook. We are more than happy to help you!

We have worked very hard to create a program that we feel will thoroughly prepare students interested in the field of Exercise Science. This major evolved from the original specialization of Health Promotion Fitness Management. While this specialization was very successful and prepared our students for a variety of fields in the health and fitness industry as well as preparation for graduate school, we listened closely to our students and monitored their career success. We realized that to better prepare our students for the field of Exercise Science, we needed to expand the science and research component of our program. Many of our students wanted more Exercise Science courses while others wanted more health and program management courses. In 2016, the Exercise Science program began and the former HPFM program became Health Promotion Wellness Management. We believe this will better meet the needs of all our students and prepare them for future career.

In developing our program and course sequencing, we began by reviewing other excellent programs across the country. In addition, we used our relationships with professional organizations in the field of Exercise Science. A few of these organizations include the:

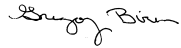
- American College of Sports Medicine (<http://www.acsm.org/>)
- National Strength and Conditioning Association (<https://www.nscs.com/>)
- National Academy of Sports Medicine (<https://www.nasm.org/>)
- American Physical Therapy Association (<https://www.apta.org/>)
- International Society of Sports Nutrition (<http://www.sportsnutritionistsociety.org/>)

Each faculty is affiliated and actively involved with one or more of these organizations. In addition, faculty have worked for many years in the field of Exercise Science and bring their practical experience into the classroom. Most faculty are certified through one or more of these organizations and use that certification experience to prepare students when they are ready to do the same.

The original goal of the Exercise Science program was to enroll 75 students by year two and by year 4 we anticipated 180. As of spring 2019, the programs 4th year, there are over 250 students. It is the fastest growing and largest major in the Department of Health and Exercise Science. The program is recognized by the **National Strength and Conditioning Association** through their **Education Recognition Program**. This recognizes the Exercise Science major as teaching the knowledge, skills and abilities required in the Exercise Science field. In the 2019-2020 academic year, the program will be applying for accreditation through the **Commission on Accreditation of Allied Health Education Programs** (CAAHEP). The specific accreditation is through the Commission on Accreditation for the Exercise Sciences. This program accreditation is within the Exercise Science track reviewed by the **American College of Sports Medicine**.

Please take the time necessary to read and understand this handbook. **ALL students are REQUIRED to be fully aware of ALL policies within this document and to abide by them.** If you are currently a student, please keep and use it as a reference. Again, if you have any questions or comments, don't hesitate to contact me at 856-256-4500 ext. 53728 or [biren@rowan.edu](mailto:biren@rowan.edu) Please also visit our webpage on the Rowan University website <https://shp.rowan.edu/departments/hes/programs/undergraduate/humanperformance/index.html> for the most up-to-date information on activities within HPCS. We wish you the best in your future endeavors!

Sincerely,



Dr. Gregory Biren  
Associate Professor and Exercise Science Coordinator  
Department of Health and Exercise Science  
Rowan University

## **Introduction**

### **1. What is Exercise Science?**

Exercise Science uses evidenced based research to develop exercise, lifestyle, and nutritional programs for the purpose of optimizing one's health, fitness, and performance goals. While Exercise Scientists work with a variety of healthy populations, they also work as health care professionals for patients with cardiovascular, metabolic (e.g., diabetes), pulmonary, cancer, obesity, and neurological diseases. This program's primary focus is the prevention or reduction in risk for developing these conditions; however, understanding how to modify exercise programs for those with these conditions is equally stressed. The Exercise Science program also considers training athletes and those with a goal of enhancing performance using scientifically sound conditioning principles. The science behind developing power, speed, strength, balance, and other essential components of fitness requires an in-depth understanding of how the human body responds and adapts to exercise and nutrition. This program teaches foundational knowledge as well as application of those scientific principles.

In addition to the scientific knowledge attained, students develop the essential skills that are used to improve and achieve peak performance. These skills include medical history assessments, functional movement assessments, gait and body composition analysis; resting and exercise blood pressure and heart rate assessments; pulmonary function testing, EKG interpretation, maximal oxygen consumption (VO<sub>2</sub>max) testing, nutritional analysis, cholesterol screening, biomechanical analysis for injury risk reduction; and many other exercise testing procedures.

### **2. What kinds of careers are available for those with degrees in Exercise Science?**

***Clinical Exercise Physiologists*** are health care professionals who work with clients, patients, and athletes to enhance performance and reduce the risk of chronic diseases: including cardiovascular, metabolic, neurological, and pulmonary diseases. They work in weight management programs associated with obesity and use a preventative approach to help individuals reduce the risk of developing orthopedic injuries. Clinical Exercise Physiologists also work in conjunction with other health care providers including medical doctors, physical therapists, and nurses to design scientifically supported exercise programs for patients as they recover or manage an illness or injury. They may be involved in the education, program development, and monitoring of clients and patients in medical/clinical settings. Hospital based exercise programs designed to reach the community are increasing to provide a safer experience to individuals at risk with a more experienced staff.

***Corporate Fitness*** programs are designed to reduce the health care cost and increase productivity for employers by integrating exercise, nutrition, and lifestyle programs for its employees. These programs may focus on weight management, stress reduction, and the reduction of risk factors for a variety of health conditions including cardiovascular and metabolic disease. These programs are many times offered to the employee's families and retirees as an added benefit.

***Strength and Conditioning*** programs that span from youth to seniors have evolved dramatically over the last decade. Clients looking to enhance performance for sport, recreation, or simply to improve activities of daily living need the knowledge and skills Exercise Physiologists provide. Strength and Conditioning coaches can work in private facilities, high schools, all levels of collegiate athletics, and all levels of

professional sports.

***Community settings***, such as the YMCA, offer a wide range of health, exercise, and conditioning programs to a variety of populations. Programs and services may target children, teens, senior citizens, and other special populations. As non-profit organizations, their goal is to improve the health, fitness, and well-being of members of their identified community.

***Youth Fitness*** programs are designed to improve the physical activity habits of children and adolescents. Physical literacy improves the ability, confidence, and desire of today's youth to engage in a physically active lifestyle through positive physical activity experiences. Experts in the field of youth fitness understand that youth are not miniature adults. Their physiological, psychological and sociological skills are different and require a unique approach to prescribing exercise and or physical activity.

***Graduate School and Health Care Professions*** are also options with the Exercise Science degree. This degree will prepare students for graduate-level health care academic programs in physical and occupational therapy, physician assistant, medical, osteopathic, nursing, and chiropractic programs. Students are also prepared for graduate work in areas such as Exercise Physiology, Biomechanics, and other exercise science based programs. While an undergraduate degree is sufficient to obtain a professional position in the field, a master's degree will provide more options and greater growth potential. The Exercise Science program will allow students to gain all the prerequisites required for most health care fields within the course work. With proper guidance through the academic and health profession advisers, students can earn their undergraduate degree and obtain most if not all prerequisites within the 120 credit hours.

### 3. Who is my advisor?

**Mrs. Jeanine Dowd** is the academic advisor for Exercise Science major. All students should meet with her each semester to have their schedules approved and verify that they are "on track". **STUDENTS SHOULD NOT SCHEDULE THEIR CLASSES WITHOUT FIRST MEETING WITH HER.** Her email address is [dowd@rowan.edu](mailto:dowd@rowan.edu) She is located on the 1st floor of James Hall. Call 856-256-64224 to schedule an appointment or use the Rowan Success Network. See Mrs. Dowd for any of the following:

- Transfer of credits from another college or university
- Fulfillment of General Education requirements
- Fulfillment of requirements within the major
- Qualification to begin a senior internship
- Verification of completed courses, recorded grades, academic standing and G.P.A.

**Mr. Tomas Varela** is the advisor for Health Professions for the College of Science and Mathematics. For students interested in health care professions such as physical and occupational therapy, medical and osteopathic medicine, physician assistant, nursing or chiropractic programs, Mr. Varela will serve as the Health Professions Advisor. His role is to provide guidance for students that may be applying to graduate schools. His email address is [varela@rowan.edu](mailto:varela@rowan.edu). Phone 856-256-5480

**Dr. Gregory Biren** is the faculty program coordinator of the Exercise Science major. All students within the major should make an appointment to meet with him upon entering the program. [biren@rowan.edu](mailto:biren@rowan.edu) phone 856-256-4500 x53728. See him for questions in the following areas:

- Description and content of courses
- Career planning within the exercise science field
- Involvement in the Exercise is Medicine Club
- Choosing a graduate school and/or major
- Student issues that may arise during the academic career

**Mr. Ciaran Cribbs** is the faculty coordinator of the Exercise Science senior internship program. All students must meet with him prior to registering for senior internship. Students should begin planning ONE YEAR prior to their intended start date. [cribbs@rowan.edu](mailto:cribbs@rowan.edu) 856-256-53290. Mr. Cribbs can:

- Provide a listing of all senior internship sites with affiliation agreements
- Provide the senior internship guidelines
- Assist with site selection
- Approve new senior internship sites
- Monitor the senior internship

Given that the internship is 25 – 40 hours per week, students are advised to not take any other coursework during the internship semester if possible. Students are allowed to take up to six additional credits with the internship; however, they must come from **non-major** courses. ALL major course work with a C<sup>-</sup> or higher is required **PRIOR** to beginning the senior internship.

#### **4. Faculty Listing in the Department of Health and Exercise Science**

The Exercise Science program is proud of the expertise and variety of backgrounds that our faculty possess. Students should make an effort to introduce themselves to each faculty member and share their career goals. Networking is an extremely important component within our major and each faculty can provide a different perspective in the field of exercise science. The following list consists of the full time and adjunct faculty that teach the Exercise Science major courses.

##### **Terry Andrus, DPT, OCS, COMT**

Dr. Andrus is an instructor for the courses Biomechanics, Motor Control, and Exercise for Special Populations within the HES department. He is a Physical Therapist and received his entry-level PT degree from Stockton University and a Post-Profession Doctor of Physical Therapy degree from Drexel University. He is also Board certified in Orthopedics and Orthopedic Manual Therapy.

##### **Gregory Blake Biren, Ph.D. CSCS, CEP, CES**

Dr. Biren received his undergraduate degree from Shippensburg University and both his Master and Doctoral degrees from Temple University. His clinical experience as an Exercise Physiologist includes working with a Medical and Wellness Center for patients at risk for cardiovascular, diabetic, obesity, and orthopedic conditions. His area of interest is integrating “Sport Science” into the K-12 school system in an effort to excite youth to care for their body and develop an interest in STEM. He serves on the New Jersey State Board for the National Strength and Conditioning Association (NSCA). He is a Corrective Exercise Specialist recognized by the National Academy for Sports Medicine (NASM); a Certified Strength and Conditioning Specialist recognized through the National Strength and Conditioning Association; a Clinical Exercise Physiologist recognized through the American College of Sports



Medicine. He advises the Exercise is Medicine Club. He is a firm believer that anyone can achieve any goal, if they are willing to sacrifice and put forth the required effort. This includes achieving one's health, fitness, educational, and career goals. His mission is to serve as an educator, motivator, and resource for helping individuals learn how to attain higher levels of health through exercise, nutrition, and lifestyle modification. His passion includes family, music, exercise, and sports.

**Jeremy Boyd, DPT, OCS, SCS**

Dr. Boyd began his collegiate career at Stockton University and received his B.S in Biology in 2011. He then continued his studies at Stockton and received his Doctor of Physical Therapy (DPT) degree in 2013 graduating with program distinction. Dr. Boyd continued his education through an Orthopaedic Physical Therapy Residency at Temple University in 2014. Upon completion of his residency Dr. Boyd achieved the honor of becoming a board certified Orthopedic Clinical Specialist (OCS) in 2016. Dr. Boyd has recently obtained an elite distinction of becoming a Sports Clinical Specialist (SCS) making him a part of the top 1% of all physical therapists in the country who are dual Board Certified in sports and orthopedics. Dr. Boyd's areas of interest include evidence based medicine, rehabilitation of athletes and active minded individuals, enhancing human performance, injury prevention, manual physical therapy and research in rehabilitation. Dr. Boyd enjoys challenging himself with training in the gym setting and playing team sports of soccer, basketball, volleyball, and football.

**Robert Cavallaro, DC**

Dr. Cavallaro completed his undergraduate work at Rutgers University, and received his Doctor of Chiropractic degree from Palmer College of Chiropractic. His practice was located in Atco, N.J. for 37 years and he specialized in treatment and rehabilitation of spinal and radicular injuries. In the Winter of 2019 he semi-retired from his practice. He now treats patients two days per week at Atlantic County Family Spine. In the Fall of 2014, he began instructing at Rowan University. His life interests have included, family, church, community, physical fitness training, tennis, skiing, running, biking, and generally anything that keeps me in motion.

**Ciaran Cribbs, M.S., RD, CSCS, RCEP, EP-C**

Mr. Cribbs earned his bachelor of science degree from the University of Massachusetts, became a Registered Dietitian and Master of Science in Exercise and Sports Nutrition from Texas Woman's University, and Master in Clinical Exercise Physiology from Northeastern University. He has 20 years experience in personal training and fitness in both commercial and corporate settings. He is certified through the American College of Sports Medicine as a Clinical Exercise Physiologist and Registered Clinical Exercise Physiologist. He is certified through the National Strength and Conditioning Association as a Certified Strength and Conditioning Specialist and a Certified Personal Trainer through the National Academy of Sports Medicine.

**Scott Dankle, PhD**

Dr. Dankle completed his undergraduate education at Rowan University before traveling to The University of Mississippi for his graduate education. One of his primary research interests examines adaptations that occur in response to blood flow restricted resistance exercise, and how manipulating different variables alters the applied stimulus. He has also performed research examining how individuals

respond differently to the same resistance training intervention after accounting for the magnitude of variability introduced by measurement error and biological variability. He is a member of ACSM and has presented his research findings at the ACSM national conference every year since entering graduate school. Dr. Dankel also has experience teaching Health and Physical Education classes to Elementary, Middle and High School students, and has trained student athletes at a sports performance facility.

**Jeanine Dowd, M.S. (Advisor)**

Mrs. Dowd earned her degree in Health and Exercise Science from Rowan University along with her M.A. in Higher Education Administration. She has been working in Academic Advising and as an adjunct instructor in the Health and Exercise Science department for the past 5 years and has worked at Rowan University for 15 years. Before joining the School of Health Professions, Mrs. Dowd worked in the Division of Student Life in the Rowan Recreation Center and Student Center. Prior to a position at Rowan University, Mrs. Dowd taught high school Health and Physical Education in the NJ public school system and taught adjunct Health and Exercise Sciences classes at Rowan College at Gloucester County. Mrs. Dowd is an avid runner and 6-time marathoner and currently coaches youth soccer and track and field clinics.

**Kyriakos Evrenoglou, Ph.D.**

Dr. Evrenoglou was a Health and Physical Education instructor for 22 years. During that time he coached football, wrestling, track and field and cross-country. During his last ten years in the public school system, he served as a school administrator, seven as a vice-principal and three as a principal. He has a Ph.D. in Exercise Science from Temple University, a M.S. of Health from West Chester University, an MBA from Temple University and an MA in Educational Leadership from Rowan University. He is a Certified Exercise Physiologist through the American College of Sports Medicine and a Certified Strength and Conditioning Specialist through the National Strength and Conditioning Association. He has served as an adjunct at Rowan University 13 years. His area of teaching is primarily in Exercise Physiology, Anatomy/Physiology, Exercise Prescription, Kinesiology, Health, and Exercise for Special Populations. He has been a fitness enthusiast since ending his collegiate sports career. He was a competitive ocean life boat rower for Wildwood Crest Beach patrol in the 80's. He enjoys travelling and learning of different countries/cultures. He speaks, reads and writes in Greek, and is in the process of learning Italian.

**Christina Garcia, M.S., ACSM- EP**

Ms. Garcia earned her bachelor of arts in Exercise Science with a minor in Spanish at John Carroll University. She then went on to Temple University where she earned a Master of Science in Kinesiology with a concentration in Integrative Exercise Physiology. Following her student career at Temple, she acted as the Exercise and Sport Science lab manager for two years. Her professional experience includes work in strength and conditioning and she also has experience in pediatric exercise testing. Ms. Garcia is a Certified Exercise Physiologist through the American College of Sports Medicine.

**Jessica Gibb, M.S. CEP, EP-C, FMSC**

Mrs. Gibb received an M.S. in Exercise Physiology with a concentration in Strength and Conditioning from the University of Louisville and a B.S. in Exercise Physiology from Ohio University. She is a Certified Exercise Physiologist and Clinical Exercise Physiologist through the American College of

Sports Medicine and has a Level I Functional Movement Systems Certification. She was previously employed at the University of Louisville, where she served as an instructor for seven years. Her teaching experience includes laboratory methods, exercise testing and prescription, anatomy and physiology, special populations and study abroad courses. Outside of academics, her previous work experience includes cardiovascular and pulmonary rehabilitation, as well as personal training at a hospital-affiliated wellness center.

**Dylan J. Klein, Ph.D.**

Dr. Klein is a New Jersey native and earned his B.S. in Nutritional Sciences, Dietetics, as well as his Ph.D. in Nutritional Biochemistry and Physiology from Rutgers University. Dr. Klein's teaching interests are on understanding whole body physiology and metabolism, with a particular emphasis on exercise physiology and nutritional biochemistry as it relates to energy production, fuel utilization, and health and performance. Much of his research interests have utilized the equine athlete as a comparative model for understanding exercise physiology and metabolism as it pertains to the human, as well as other organisms. Using transcriptional and metabolomic bioinformatic approaches, his research focuses on the molecular and cellular adaptations that govern the beneficial effects of diet and exercise in skeletal muscle that promote health and reduce the risk of disease. Further, his research characterizes the relationship between body composition and aerobic capacity over periods of training and detraining.

**Andrew Lamb, MS**

Mr. Lamb earned his Master of Science in Exercise Science with a focus on Performance Enhancement and Injury Prevention from California University of Pennsylvania. He received his BS in Kinesiology from Pennsylvania State University. He is a Certified Strength and Conditioning Specialist recognized through the National Strength and Conditioning Association, a Performance Enhancement Specialist recognized through the National Academy of Sports Medicine and a Certified Speed Specialist recognized through the National Academy of Speed and Explosion. His work experience includes several years in a supervisory role in a sports medicine setting, specializing in returning athletes to sport safely after injury. He has also spent time as a strength and conditioning coach in the private and high school sector, as well as well with University of Pennsylvania Football throughout 2019. He enjoys trying different nutritional strategies and resistance training protocols on myself, and learning about all aspects of improving health and performance.

**James Ronga, D.C.**

Dr. Ronga earned his undergraduate degree at St. Joseph's University and his graduate degree from Sherman College of Chiropractic. He has taught courses in Spinal Anatomy/Physiology, Geriatrics, Public Health, and Medical Terminology. He has practiced Chiropractic care for 35 years. He has been a runner for 50 years, a tennis player for 40. His passion is to accentuate the close structure/ function relationship that exists in helping us to maintain our homeostasis, with an emphasis toward the more natural approach in health care. Given the great profession he was blessed to find, he enjoys being a conduit for his students to find their future passion/profession whether that be future chiropractors, osteopaths, podiatrists, physical therapists, nurses, trainers, coaches, et al, as he believes there is no greater gift than enjoying and excelling in your *chosen* vocation.

**William Peifer, M.S.**

Mr. Peifer is a former graduate from Rowan University with my B.A. in Education. He currently is a full time High School Health and Physical Education teacher at Gloucester County Institute of Technology. He holds a Masters of Kinesiology at A.T. Still University. He is certified through the National Strength and Conditioning Association as a Certified Personal Trainer and a sports performance coach through USA Weightlifting. He continues to be an active personal trainer, helping coach over 20 clients achieve their fitness goals through a healthy diet and exercise. He is truly excited about the opportunity to work as a faculty member at Rowan University and inspire others to achieve greater health and wellness.

**Tim Schmitz, M.S.**

Mr. Schmitz is a graduate of Rutgers University and California University of Pennsylvania, He is an adjunct instructor for the HES Department teaching Exercise Physiology with Laboratory. He is currently a full-time faculty member and Exercise Science Program Coordinator at Rowan College at Gloucester County, where he is also an Assistant Men's Soccer Coach. His academic interests include sports performance and strength and conditioning, especially in soccer and baseball. He is a Certified Strength and Conditioning Specialist (CSCS) through the NSCA. When not in the classroom, he enjoys staying active through running and playing in men's soccer leagues.

**Mehmet Uygur, Ph.D.**

Dr. Uygur has a diverse educational background that includes the following degrees: M.S. in Exercise Physiology (Middle East Technical Institute in Turkey), M.S. in Biomechanics and PhD in Motor Control both from the University of Delaware. Since beginning his career at Rowan University in 2014, he has been teaching various courses including Exercise Physiology, Kinesiology, Applied Biomechanics, Exercise Prescription, and Motor Control. His research interests include the kinetic assessment of hand function and neuromuscular quickness in healthy and neurological populations. He is also interested in the effects of high-speed, low-resistance exercise on various aspects of cognitive and motor functions in neurological populations including people with Parkinson’s disease and multiple sclerosis. He played basketball at a professional level in Turkey.

To reach a faculty member, dial (856) 256-4500 and their extension. To reach the department secretary, Mrs. Lisa Brown, dial (856) 256-4785 or Mrs. Meghan McGahey (856)-256-4784.

<u>Name</u>	<u>Extension</u>
Dr. Greg Biren	53728
Dr. Nancy Buhner	53703
Dr. Joanne Bullard	53709
Mr. Ciaran Cribbs	53290
Mr. Scott Dankle	4743
Mrs. Jeanine Dowd	64420 (Academic Advisor)
Mrs. Laurie Dwyer	64420 (Academic Advisor)
Dr. Kyriakos Evrenoglou	<a href="mailto:evrenoglou@rowan.edu">evrenoglou@rowan.edu</a>
Ms. Chrissy Garcia	<a href="mailto:garciach@rowan.edu">garciach@rowan.edu</a>
Mrs. Jessica Gibb	53290

Dr. Douglas Mann	53706
Dr. Dylan Klein	<a href="mailto:kleind@rowan.edu">kleind@rowan.edu</a>
Dr. Erin Pletcher	53704
Dr. Christina Riccardo	53708
Dr. Leslie Spencer	53761
Dr. Robert Sterner (chair)	53767
Mrs. Elizabeth Tenison	53740
Dr. Mehmet Uygur	64785
Dr. Nicole Vaughn	4764
Dr. Robert Weaver	53765
Dr. Sheri Willis	53702

## 5. Exercise is Medicine (EIM) Club

“Exercise is Medicine® (EIM) is a global health initiative managed by the American College of Sports Medicine (ACSM) that is focused on encouraging primary care physicians and other health care providers to include physical activity when designing treatment plans for patients and referring their patients to EIM Credentialed Exercise Programs and Exercise Professionals. EIM is committed to the belief that physical activity is integral in the prevention and treatment of diseases and should be regularly assessed and “treated” as part of all healthcare.

While there are many clubs within the department, EIM is the primary club for Exercise Science students. Membership provides students with the opportunity to gain valuable experience and begin building a professional network while in school. Active members are better prepared and in higher demand for internships and job opportunities upon graduation. In the past, projects have included hosting exercise and nutritional workshops for the community, participation in the Philadelphia Science Festival promoting the science behind exercise, and developing Sport Science programs within the K-12 school system to promote learning science through understanding the human body. Please contact Dr. Biren if you are interested in becoming a member of this organization.

### Academic Requirements

## 6. What are the requirements to enter the Exercise Science program?

To qualify for acceptance into Exercise Science, a student must first meet with the Academic Advisor, Mrs. Jeanine Dowd, to discuss the students intentions to declare this major. Required paperwork can be completed at this time.

The following are policies at the University, College, and or Departmental level with which students must be aware.

1. It is important to note that **all 300 and 400 level courses MUST be taken on the Glassboro campus** for the following reasons.
  - The Exercise Science program is applying for accreditation through the *Commission on Accreditation for the Exercise Sciences (CoAES)*. This program establishes the content,

skills, and experiences educational programs should provide for students desiring careers in Exercise Science. In order to meet accreditation requirements, the Exercise Science program must ensure each student meets the competencies required by CoAES.

[www.coaes.org/](http://www.coaes.org/)

- The Exercise Science program is recognized by the National Strength and Conditioning Association through their **Education Recognition Program** (ERP). This program establishes the content, skills, and experiences educational programs should provide for students desiring careers in strength and conditioning. In order to maintain recognition, the Exercise Science program must ensure each student meets the competencies required by ERP. <https://www.nasca.com/education/education-recognition-program-erp/>
  - Finally, students should note that each course is specifically designed to provide prerequisite content, skills, and experiences for students to be prepared for the next level course. All courses are interrelated and dependent on students being properly prepared.
2. Students **MUST** earn a **C- or higher** for all courses within the major. If a student does not earn a C- or higher they will need to repeat the course. This will prevent the student from registering for the next level course and may delay the student's graduation.
  3. Students may **ONLY take a course 2 times**. It is a **university policy that no student will be allowed to take the same course 3 times**. Withdrawing from a course counts as one time. Students must understand the importance of earning grades to prevent this from happening. If a student does not earn a C- or higher for the second time of the same course, they will need to **change majors**. Students are required to review the policy at the following link. <https://academics.rowan.edu/shp/departments/hes/about/HES%20Course%20Repeat%20Policy%209-12a.pdf>
  4. **Attendance**. It is a College of Science and Mathematics policy that all students must attend at least 75% of the classes throughout the semester or they will be required to withdraw from the class. If the student does not withdraw then they will earn an "F" for the course. It is important for students to understand that this includes excused and unexcused absences.
    - a. As an example, for a class that meets 2 times per week, students can miss up to 6 classes during the semester, but the 7<sup>th</sup> class would cause them to exceed 25% of the class. They would then need to withdraw.
    - b. Students are required to review the policy at the following link. <https://drive.google.com/a/students.rowan.edu/file/d/1hQE3MxqoONN9pdQU9M95VFsRjZg9ezam/view?usp=sharing>
  5. **Handling issues** in courses or the Exercise Science program. It is essential for students to follow proper procedures when dealing with issues in a course of any aspect of the program. Students should always meet with the teacher first to address the concern. If the student feels the issue was not resolved properly, then the next procedure is to meet with the **Academic Student Affairs Committee** (ASAC). This committee is comprised of Dr. Biren as the chair, all of the program coordinators within the Department of Health and Exercise Science, and the student's advisor. If the committee is not able to address the issue, then the student will be advised to speak with the chair of the department, Dr. Sterner.

## 7. What are the requirements to graduate with the Exercise Science major?

Professional Development Hours. Prior to registering for Senior Internship in Exercise Science, a student must complete 80 professional development hours (PDHs) outside of the classroom. A thorough description of PDHs is given in the Foundations of Exercise Science course. Professional Development Hours are divided into two categories as shown below.

- **40 hours in Professional Experience:** paid or volunteer work with hands-on experience in exercise testing, screening, promotion, education, marketing, or evaluation in an exercise science setting (internship, professional club/organization, or volunteer activity).
- **20 hours in Training and Certification:** includes completion of professional workshops, conferences, and successful passage of certification exams related to exercise science
- 20 PDH hours are required in 4 courses spread throughout the 4 year program; however, PDHs can be obtained at any time and then applied to the following courses. Students will upload with supporting documents their PDH involvement in the “community” section of Blackboard in one of the following course categories.
  - **Foundations of HPCS, Motor Control, Health Behavior, Senior Seminar**
- Students are required to review the PDH information at the following link.  
[https://docs.google.com/document/d/1Q\\_nx3xA5JF\\_7dEnlJDBI26\\_UwdqV0tGhyHHjBH-rm1Y/edit?usp=sharing](https://docs.google.com/document/d/1Q_nx3xA5JF_7dEnlJDBI26_UwdqV0tGhyHHjBH-rm1Y/edit?usp=sharing)

Most can be completed at little or no cost to students and many opportunities are offered on campus to complete the hours. PDHs are essential for providing students with hands-on experience and practical knowledge that will better prepare them for their internship and the workplace upon graduation. Students can earn these hours at any point and carry them forward into class. This means if a student were to get 15 hours over the summer, they can designate them towards an upcoming class.

Students should check with the instructor or Dr. Biren in advance to ensure the activity will count towards PDHs. Students may not use more than 20 hours from any one activity. For instance, if a student volunteered 30 hours at a physical therapy session that is great, but they can only use 20 hours from that site. This is for the purpose of providing more experiences for the student.

## 8. What Students Can Expect of the Faculty

**Excellence in teaching.** Courses will include content and learning experiences that are relevant to the profession and important for students to have and know. Faculty will be organized and well-prepared for each class meeting. The faculty has committed to delivering course material and learning experiences with professionalism and competence.

**Timely and appropriate responses to student concerns.** Faculty will respond to email and voice messages within a working day (weekends and holidays may take longer). Student concerns will be carefully considered and addressed with fairness and respect.

**Personal attention and mentoring.** Faculty will seek to know each student and, as much as is possible, provide individual students with the advising and mentoring that they want and need. Faculty and advisors will show concern for aspects of the students’ wellbeing and help students

achieve personal wellness.

**Fair and consistent grading.** Faculty will determine grades fairly, using standardized rubrics that enable the student to see the strengths and weaknesses of each graded assignment. Faculty will meet with students to discuss the quality of their work and how they may improve it at the student's request. With the possible exception of major projects, all student work that is submitted on time will be graded within seven days of the submission date.

**Role modeling of the Exercise Science philosophy and goals.** Faculty and advisors will strive to live according to the principles and ethical standards related to professional behavior. Faculty and advisors will treat students and their colleagues the way they expect students to treat each other and their professors.

**Course attendance.** Faculty will hold ALL courses throughout the semester and will not cancel classes unless initiated by Rowan University or an emergency situation experienced by the faculty. If either occurs, faculty will provide an online assignment to ensure the class stays on track with the syllabus.

**Tardiness.** All faculty will arrive several minutes PRIOR to the start of class to ensure all materials are ready to begin and role is taken by the start of the class time.

### **Students Needing Special Accommodations:**

Your academic success is important. If you have a documented disability that may have an impact upon your work in this class, please contact your professor. Students must provide documentation of their disability to the Academic Success Center in order to receive official University services and accommodations. The Academic Success Center can be reached at 856.256.4234 and is located on the 3<sup>rd</sup> floor of Savitz Hall. The staff is available to answer your questions and help you with your accommodations. For more information, visit <https://sites.rowan.edu/disabilityresources/>

The Rowan Success Network powered by Starfish® is designed to make it easier for you to connect with the resources you need to be successful at Rowan. Throughout the term, you may receive email from the Rowan Success Network team (Starfish®) regarding your academic performance. Please pay attention to these emails and consider taking the recommended actions. Utilize the scheduling tools to make appointments at your convenience including tutoring. Additional information about RSN may be found at [www.rowan.edu/rsn](http://www.rowan.edu/rsn).

### **What the Faculty Expect of Students**

We want all of our graduates to be successful in finding desirable jobs and entering selective graduate school programs. We find that our most successful students and graduates demonstrate the following good habits, which is why we ask all of our students to strive for them.

**Active contribution to class.** Students learn best when they are actively engaged in the process.



While Exercise Science courses will include some amount of lecture, students will be expected to contribute to the learning process on a regular basis. All students are expected to: complete assigned reading *prior* to class, bring textbooks to class, use devices as part of the learning experience in class, and expect to share and discuss assignments with classmates in class. This is part of the Dispositional grade for this course.

**Attendance:** *You are expected to show up to every class on time and prepared.* If you have a documented absence for school-related or medical reasons, please provide this to your instructor. If possible, make arrangements **ahead of time** to make up any work you miss. Please see the Departmental Attendance Policy to know how many absences are allowed before you fail the course (regardless of the grades you have earned.) For a class that meets once a week, 3 absences (excused or not) are allowed. For a class that meets two times a week, 6 absences (excused or not) are allowed.

**Tardiness:** It is disruptive to the class and the instructor when students arrive late. If other commitments require you to be late on a regular basis, please register for another section of the course. The instructor will take role in the beginning of class; students entering after role is taken will be marked as late. This is part of the Dispositional grade for this course.

**Texting and use of devices in class:** We value technology and, in some classes, will integrate it as part of the classroom experience. We also value a class in which everyone is attentive and participating without distractions. This is called “mindfulness” and it is a great way to reduce stress and increase your personal wellbeing. *Please do not text while in class; turn your phone off and put it away.* You may use your laptop in class to follow the PPTs and take notes. Please do NOT go to any other websites or do other work. It is distracting to the students around you and keeps you from focusing, too. **Your instructor WILL watch for this and address you in class if you are using your device for non-class purposes.** This is part of the Dispositional grade for this course.

**Honesty:** You are EXPECTED in all classes to complete your work honestly and fairly. Copying other people’s papers, citing references that you did not use, plagiarizing an author’s words and cheating on exams are some examples of dishonest practices that will **at minimum** cause you to fail the class. DO NOT CHEAT. If you are unsure about whether or not something is “legitimate” in your paper, discuss it with me. **Plagiarism** occurs whenever you copy **more than three words** of someone else’s text without directly quoting it or use someone else’s ideas without giving them credit. **YOUR PAPERS MUST BE WRITTEN IN YOUR OWN WORDS.**

The Rowan Academic Integrity Policy is found at  
<https://confluence.rowan.edu/display/POLICY/Academic+Integrity+Policy>

**Late Work:** Each professor will determine whether late work is accepted in her/his course. If work is accepted late, the penalty will be specified in the course overview by the instructor. Time-sensitive assignments, such as group discussion posts, will not be accepted late. With the exception of a medical emergency, work is expected to be submitted on time even if the student has an excused absence.

**Time commitment to complete high-quality work.** Each course is designed with the expectation that students will spend approximately 5 hours outside of class studying, reading and preparing assignments. If you take five courses, this means you are committing to 45 hours each week between class time and course-related work outside of class. You may want to consider taking fewer classes per semester if you have work and other commitments that will limit the amount of time you have for outside studying and class preparation.

**Use of Blackboard, Google Docs and other technology.** Most Exercise Science courses and extracurricular activities will require you to use technology. You are expected to fully utilize Blackboard and check it frequently. You are also expected to create a Google account with your Rowan email and have access to Google Docs resources.

## **Policies Related to the Senior Internship and Graduation**

### **9. Professional Development Opportunities and Events**

The School of Health Professions maintains an online bulletin board of current job openings, training and certification opportunities, conferences, and other professional opportunities for students. The board is updated daily, so please “join” the group to receive the announcements of new opportunities. Those requiring professional development hours can find approved activities at this link:

[https://www.hootboard.com/b/446502/Rowan\\_University](https://www.hootboard.com/b/446502/Rowan_University)

In addition, all Exercise Science students interested in the healthcare profession and graduate school are encouraged to sign up for the Office of Health Professions list serve. Students will receive weekly emails of events that will contribute to PDHs and provide invaluable experiences for students. Those wishing to receive these emails may sign up for the list serve using this link:

<http://listmanager.rowan.edu/sympa/info/healthprofessions>

The Exercise is Medicine Club provides several PDH opportunities each semester. All HPCS students should become a member of the club. To become a member use this link:

<https://rowan.campuslabs.com/engage/organization/exerciseismedicine>

### **10. What courses do I need to take?**

Courses fall into three categories. Rowan Core courses are required of all Rowan students. Exercise Science major courses are required of all Exercise Science students. Free electives provide students an opportunity to take courses of interest that may not be related to the major.

A specific list of courses is shown on the following pages. Please see the **Rowan University Undergraduate Catalog** for a full description of the General Education requirements and additional information about the University’s academic policies.

[https://sites.rowan.edu/catalogs/\\_docs/undergraduate\\_catalog\\_2018\\_2019.pdf](https://sites.rowan.edu/catalogs/_docs/undergraduate_catalog_2018_2019.pdf) )

**Rowan Core Requirements and courses outside the department for Exercise Science major students.**

	<u>Credits</u>
Communicative Literacy .....	9
Composition 1 (3 credits)	
Composition 2 (3 credits)	
Public Speaking (3 credits)	
Scientific Literacy .....	12
Biology I (Foundations In Biology for Biomedical Science)	
Biology II (Foundations In Biology for Biomedical Science)	
Chemistry 1	
*each of the above are 4 credit courses	
Humanistic Literacy .....	3
Essentials of Psychology (3 credits)	
Artistic Literacy .....	3
Student's choose (3 credits)	
Quantitative Literacy .....	3
Statistics 1 (3 credits)	
Global Literacy .....	3
Student's choose (3 credits)	
Free Electives .....	18
Students choose (6) 3-credit courses)	
Broad Based Literature Writing Intensive. ....	3

TOTAL OF 54 CREDITS

Students are STRONGLY encouraged to complete a minor or concentration using the Rowan Core and Free Electives. Recommended minors include Psychology of Sport and Exercise, Business, Psychology, Dance, Computer Science, Foreign Language, and Biology. Recommended concentrations include Pre-Medicine, International Studies, Women's Studies, Leadership, and Honors. Certificate of Undergraduate Study (CUGS) are combinations of courses that prepare students in certain fields of study. They typical require 4 courses. The Department of Health and Exercise Science offers a CUG in Psychology of Sport and Exercise.

**Exercise Science Major Curriculum Taught in the Department of Health and Exercise Science**

	<u>Credits</u>
*Foundations of Exercise Science .....	3
*Anatomy and Physiology 1 and 2 .....	8

- (taught in Biology)

*Safety, First Aid and Prevention	3
*Basic Nutrition	3
*Motor Control and Learning	3
*Introduction to Biomechanics	3
*Exercise Physiology for Health Care Professionals.	4
*Health Behavior Theory and Practice	3
*Nutrition for Fitness	3
*Research Methods in HES	3
*Fitness and Program Management in Wellness	3
*Human Disease and Epidemiology	3
*Exercise Prescription	3
*Personal Training Techniques Lab	1
*Exercise for Special Populations	3
*EKG Interpretation and Basic Pharmacology	3
*Applied Biomechanics	3
*Senior Seminar	2
*HES Senior Internship	9

TOTAL 66 CREDITS

Note: An \* indicates the course has a prerequisite which requires a C-.

Below is the “program guide” that describes the recommended sequencing of courses throughout the entire program

## 11. Major Course Descriptions

### FOUNDATIONS OF EXERCISE SCIENCE

(HES 00105)

3 semester hours (s.h.)

This course introduces students to the Exercise Science major. Students will thoroughly understand the policies and procedures within the major, careers in the field of exercise science, become familiar with key professional organizations, be introduced to resume writing and interview skills, participate in professional development experiences, be exposed to research opportunities, participate in professional site visits, along with preparation and application to graduate school (for those interested). Students will assess their career goals and create a plan to develop principles and characteristics that will improve their opportunities for success.

**SAFETY, FIRST AID AND BASIC UNDERSTANDING OF ATHLETIC INJURIES (HES 00116)**  
3 s.h.

This course is a lecture/laboratory experience that meets standards established by the American Red Cross. Topics include the theories behind the safety and prevention of common injuries and illnesses. The course focuses on first aid principles, along with the knowledge and skill development that can be of value to oneself as well as others. Successful completion of this course leads to certification in CPR as well as Standard First Aid and Personal Safety.

**BASIC NUTRITION** (NUT 00200) 3 s.h.

Students study human nutrition through the basic knowledge of nutrients and the physiological processes involved in the utilization of food. They also develop an understanding of the ways in which age, health, social and economic factors affect nutritional needs and food practices. A computerized dietary analysis is one of the course requirements.

**MOTOR CONTROL AND LEARNING** (HES 00243) 3 s.h.  
(Prerequisites: C- or higher in BIOL 10210 and BIOL 10212)

This course provides a thorough understanding of motor control and motor learning of human movement. Motor control deficiencies in people with neurological diseases will also be covered. Laboratory activities will be used to support the information learned in class.

**INTRODUCTION TO BIOMECHANICS** (HES 00346) 3 s.h.  
(Prerequisites: C- or higher HES 00241 & HES 00242 or BIOL 10210 and BIOL 10210)

This course specifically prepares students with the knowledge and skills essential for working in clinical settings related to health and healthcare professions. It integrates the sciences of anatomy, physiology and physics as they contribute to developing the knowledge and skills pertinent to understanding human motion from a mechanical perspective. An introduction to biomechanical instrumentation (e.g., motion capture, force plates, etc. will provide practical applications to address: functional movement assessment, kinetic and kinematic qualities of movement, gait analysis for healthy populations and selected pathological conditions, and corrective exercises for proper human movement.

**RESEARCH METHODS in HES** (HES 00301) 3 s.h.  
(Prerequisite: C- or higher in STAT 02100)

The course details design and application of research methodology that considers the cognitive, affective, and psychomotor performance as they relate to health and human performance. Published research,

review of literature, methodology, research skills, scientific writing, and the interpretation of published research in the discipline will be included.

**FACILITY AND PROGRAM MANAGEMENT IN WELLNESS** (HPW 00360) 3 s.h.  
(Prerequisites: C- or higher in HES 00105)

This course examines the skills necessary to effectively manage a health promotion facility and program through the study of the health and fitness facility management industry. Topics include training and managing staff, marketing programs and services, customer service, financial management, legal concerns, equipment selection and health and safety issues.

**EXERCISE PHYSIOLOGY for Health Care Professionals** (HES 00349) 4 s.h.  
(Prerequisites: C- or higher in BIOL 10210 and BIOL 10210)

The course specifically prepares students with the knowledge and skills essential for working in clinical settings related to health and healthcare professions. This course intricately examines the interrelationship between physical activity and the consequential human physiological response. This course prepares students to assess the physiology of the human body during acute and chronic physical activity bout and as a result of the training & conditioning process. Laboratory experiences will allow students to apply theoretical concepts to the health and health care professions in the areas of cardiovascular, metabolic, neuromuscular, and pulmonary diseases, body composition, and exercise in thermal stress environments.

**NUTRITION FOR FITNESS** (NUT 00415) 3 s.h.  
(Prerequisite: C- or higher in NUT 00200 AND BIOL 10210 and BIOL 10210)

This advanced nutrition course explores the relationship between nutrition, physical Wellness, performance and disease prevention. Specific topics include nutrition fraud, supplementation, ergogenic aids, diet planning for athletes and the relationship between nutrition and chronic diseases such as cancer and heart disease. In addition, students continue to develop their skills as nutrition counselors and educators.

**HEALTH BEHAVIOR THEORY AND COUNSELING** (HPW 00350) 3 s.h.  
(Prerequisite: C- or higher in Foundations of HPCS 00105)

This course examines the factors that influence an individual's choices and behaviors related to health and the process of motivating change within the individual to adapt healthful behaviors and discontinue unhealthful ones. Several theories of health behavior are examined and applied. The different roles of the client and educator are addressed as the student is prepared to counsel others in making positive health behavior changes.

**HUMAN DISEASE AND EPIDEMIOLOGY** (HES 00348) 3 s.h.  
(Prerequisites: C- or higher in HES 00349)

This course examines the etiology, pathophysiology and epidemiology of diseases and conditions that are often seen by health and fitness professionals working with clients in human performance and exercise science settings. Included are cardiovascular disease, hypertension, asthma, Type 1 and Type 2 diabetes mellitus, overweight and obesity, osteoarthritis, rheumatoid arthritis, low back pain syndrome, and cancer.

In addition, concerns specific to children, the elderly and in pregnancy are also addressed.

**EXERCISE PRESCRIPTION** (HES 00401) 3 s.h.  
(Prerequisites: C- or higher in HES 00349)

This course provides students with knowledge and practical experience in exercise testing and prescription. This information enables students to establish scientific foundations of exercise testing and prescription, to identify the risk factors for disease development and to prescribe an exercise program based on exercise test results and personal limitations. Practical experience is provided for testing subjects in the laboratory.

**LABORATORY IN PERSONAL TRAINING TECHNIQUES** (HES 00329) 1 s.h.  
(Prerequisite, C- or higher in HES 00349)

This course prepares the student, with an exercise science background, to work successfully as a personal fitness trainer for individual clients. During this highly experiential learning course, students will develop their ability to combine their exercise science knowledge, counseling and educational skills, and fitness techniques to prescribe exercise for a variety of populations. Upon successfully completing this course, students will be prepared to qualify for national certifications in personal training.

**EXERCISE FOR SPECIAL POPULATIONS** (HES 00412) 3 s.h.  
(Prerequisites: C- or higher in HES 00349)

This course provides a study of exercise considerations for special populations. It covers the basic concepts of the physiologic effects of exercise and the application of these concepts to special cases. Cases included are respiratory and cardiovascular diseases, hypertension, obesity, diabetes, arthritis, osteoporosis, pregnancy, childhood/adolescence, and the elderly.

**APPLIED BIOMECHANICS** (ATR 00347) 3 s.h.  
Prerequisite(s): C- or higher in HES 00346)

This course provides students with a background in the biomechanical concepts and applications that describe and govern human movement. Topics of the course will include, but are not limited to: friction, linear and angular motion, tissue mechanical properties, conservation of energy, work and power, fluid mechanics, stability and center of gravity, walking and running gait analysis. These topics are taught by quantitatively analyzing human movements through the use of modern biomechanical analyses including motion capture, electromyography, and force plates.

**EKG INTERPRETATION AND BASIC PHARMACOLOGY** (HES 00402) 3 s.h.  
(Prerequisites: C- or higher in HES 00401)

This course provides a thorough understanding of EKG interpretation and basic pharmacology related to cardiac, pulmonary, and diabetic conditions for professionals in human performance and exercise science fields. Video streaming of EKG rhythms will provide students with practical experience. Case studies will be used to understand how medications are used to treat a variety of health issues and the influence of these medications on exercise prescription.

**SENIOR SEMINAR**

(HES 00413) 3 s.h.

(Prerequisites: C- or higher in HES 00401)

This application-oriented course is designed to review and assess the students' knowledge and skills which were developed throughout the Human Performance in Clinical Setting program. Students will progress through a series of online seminars reviewing the key concepts and skills learned in the program that are necessary for a career in the field of Human Performance in Clinical Settings. In addition, students will work in group settings to continue to practice and develop key skills necessary for their career.

**SENIOR INTERNSHIP IN HES**

(HES 00483) 9 s.h.

(Prerequisites: C- or higher in HES 00413)

Students complete a supervised senior internship enabling them to gain knowledge of clients and the function of a health, sport or wellness facility or program in the community. Placements are made in organizations selected on the basis of a student's needs, interests and program specialization.

**11. Choosing a Minor: Benefits and Options**

The Exercise Science major has enough electives to allow students to complete a minor. The benefit of pursuing a minor is that it provides an additional expertise in an area related to Exercise Science. This can make the student more "marketable" when finding a job or applying to graduate school. It can also help the student determine the direction in which he or she will pursue a career. Some suggested minors are described in this section.

Psychology of Sport and Exercise

This minor provides students with a sequence of courses to enhance knowledge in the field of psychology and performance in the sport and exercise environment. Achieving this minor will enhance awareness of general information regarding sports psychology, performance and exercise by focusing on theories, models and processes.

**Curriculum****Required courses (18 credits)**

<b>Course number</b>	<b>Course title</b>	<b>Credit hours</b>
PSY01107	Essentials of Psychology	3
PSY01329	Health Psychology	3
HES00370/PSY053 20	Introduction to Sport and Exercise Psychology	3
HES00371/PSY003 71	Social Psychology of Sport	3
HES 00371	Stress Management	3
HES 00372	Evidence Based Approach to Applied Sport Psychology and Exercise	3

Certificate of Undergraduate Study (CUGS) in Psychology of Sport and Exercise



## Overview of Program Objectives

To provide concepts of psychology and exercise related to behavioral theories, physiological processes, social psychology of sport and exercise, and psychological modalities related to performance in a sport and exercise environment.

The goal of the Psychology of Sport and Exercise CUGS is to provide students with a sequence of courses to enhance knowledge in the field of psychology and performance in the sport and exercise environment. Achieving this certificate will enhance awareness of general information regarding sports psychology, performance and exercise by focusing on theories, models and processes.

This CUGS will be of value to students interested in working in health profession fields in positions such as a coach, athletic trainer, educator, health behavior coach, etc. Having an understanding of sport and exercise psychology when working with potential clients, patients, students, and athletes are critical to providing care utilizing a whole body approach.

Although students will not be receiving a degree in Sports Psychology, this CUGS can prepare those that are interested in obtaining a graduate degree in psychology, a doctoral degree in Sports Psychology and even those with future professional goals of becoming a certified consultant for the Association of Applied Sport Psychology after receiving their terminal degree with theoretical framework of this field.

Since Rowan University does not have a minor in sport psychology, this CUGS will provide the first experience in this field for students to obtain a certificate of specialization.

## Curriculum

### Required courses (12 credits)

Course number	Course title	Credit hours
PSY01107	Essentials of Psychology	3
PSY01329	Health Psychology	3
HES00370/PSY053 20	Introduction to Sport and Exercise Psychology	3
HES00371/PSY003 71	Social Psychology of Sport	3

### Business Administration

The Minor in Business is a program of study serving two groups of students in non-business majors. The first group are those who wish to reinforce their employment credentials by taking several business courses. A Minor in Business provides students with a strong and credible program. Many large corporations recognize the importance of a strong background in the liberal arts and sciences. In addition, these corporations look for entry level business skills. The Minor in Business provides these skills. The second group of students are those who plan to do graduate work in Business. Many students find they can enhance their promotion opportunities with an advanced degree in Business. Some students choose

the Minor in Business realizing that the minor contains courses which many colleges require for their MBA programs. Contact the College of Business at 856.256.4025 for more information.

### Computer Science

Computer Science deals with data structures, algorithms, problem-solving techniques, programming languages, software engineering, and the architecture of modern digital computer systems. The rapid rise in computer usage has led to a corresponding increase in the need for people to work in computer related positions. The Minor in Computer Science will help students prepare to make effective use of computers in their careers. It is expected to be particularly attractive to students from engineering, business administration, education, the social sciences and the life and physical sciences. Contact the Computer Science Department at 856.256.4805 for more information.

### Psychology

The Psychology minor is designed to allow students from other majors to choose courses that will further their career goals. HPCS students interested in counseling, stress management, mental health and/or health behavior change might particularly benefit from this minor. The psychology department at Rowan University offers a 21 credit hour minor in psychology. This program is designed for students desiring a substantial background in psychology while majoring in another field. The minor is designed to allow students the flexibility to choose courses that will further their career goals. Contact the Psychology Department at 856.256.4870 for more information.

### Spanish

Spanish as a first or only language is increasing among the U.S. population. Fitness and health care professionals in certain geographical areas and/or working with Spanish-speaking populations will find it an asset to be able to speak Spanish. Fluency is also necessary for those interested in international careers. It provides a general background for future professional studies and advanced degrees in Spanish and/or work in a wide variety of fields, such as social, administrative, and governmental work, as well as international business. The Spanish Minor may be officially declared at the Foreign Languages and Literatures Department. Contact the Foreign Languages Department at 856.256.4070 for more information.

### Dance

For students with an interest in group exercise as an area of expertise, the Dance minor can be beneficial. Learn more about movement, choreography, rhythm and music through these courses. Requirements include 18-24 semester hours of class, including Elements of Dance, and a selection of technique courses and theory courses. Contact the Theatre and Dance Department, 856.256.4030 for more information.

### **Senior Internship in Exercise Science**

#### **12. What are my options for the internship?**

Students are encouraged to carefully select a site based on their interests, needs, and future goals. Since there are a tremendous number of options available, the student should carefully consider what he/she

wants to gain from the experience prior to choosing a site. Students may choose a local or “distance” site in another state or country. Corporate, clinical, rehabilitation, hospital, and community sites are all acceptable if they meet basic guidelines described in the next section. Check with the senior internship coordinator, for a list and/or file of approved sites. New sites may be approved after being reviewed by the senior internship coordinator. See Mr. Cribbs for previously approved sites.

### **13. What is required for a site to be approved?**

- A. The Site Supervisor must hold a bachelor’s degree in a health-related field and carry appropriate professional credentials.
- B. The site must be an established, professional organization, and provide a variety of relevant experiences for the student.
- C. The site Supervisor must agree to mentor the students on a daily basis, provide an opportunity for the student to design a major project, and complete two formal evaluations with the student.
- D. The site administrators must agree to comply with the specifications of the contract supplied by Rowan University, unless a special contract is provided and approved by Rowan.

### **14. When should I begin planning for my internship?**

It is recommended that the student begin exploring potential sites and attend an internship informational meeting *one year prior* to the anticipated start date.

### **15. What am I required to do BEFORE the internship starts?**

The student should begin by attending an information meeting and receive the Internship Handbook to learn the specific requirements. Rowan provides \$1 million in insurance to any student who is registered for the Rowan internship course. This is one of the reasons students **MUST** be registered for (and pay for) the Rowan Senior Internship course. A student **CANNOT** begin accruing hours until the senior internship coordinator has received the contract and verification of insurance.

The student should meet with the senior internship coordinator to discuss her/his plans and interests and make sure the site is approved. See the Field Placement Handbook link below for due dates of the contract, insurance verification and other required forms.

<https://docs.google.com/document/d/1phYgTpHoDLiar81kwwgPTXcm7jpiNojeMTKDhPOLaItk/edit?usp=sharing>

### **16. What am I required to do DURING the internship?**

It is the **STUDENT’S RESPONSIBILITY** to maintain communication with the faculty advisor throughout the senior internship. This includes weekly logs, reports, evaluations, site visits and the final portfolio, which must be completed and turned in **ON TIME**.

### **Commonly-Asked Questions**

### 17. Where can I find information on graduate school options?

Dr. Biren and other faculty would be happy to discuss your choices with you and help you make a decision. The Internet and Career and Academic Placement Center are also good resources along with the Office of Health Professions led by Mr. Tomas Varela ([varela@rowan.edu](mailto:varela@rowan.edu))

### 18. Where can I find information on jobs during school and after graduation?

Dr. Biren and other faculty frequently hear of open positions and posts them on the “HOOTBOARD” [www.hootboard.com/healthprofessions](http://www.hootboard.com/healthprofessions) They welcome contact from current and former students who are seeking jobs. Professional conferences are also good resources and frequently employers look for potential employees there. The website, <https://www.hpcareer.net/> is also a great source of job postings.

### 19. Can I take courses at other colleges to satisfy the requirements?

Students may transfer in General Education courses as long as they meet the requirements established by the Health and Exercise Science Department. Students are required to complete all 300 and 400 level courses within the Exercise Science major at the Glassboro campus of Rowan University.

### 20. Other useful telephone numbers on campus

Admissions	256-4200	Career and Academic Placement	256-4225
Financial Aid	256-4250	Rec Center	256-4900
Library	256-4800	Registrar	256-4350
Student Center/Info Desk	256-4601		

### 21. Student Resources

- **Rowan Success Network**
  - The Rowan Success Network (RSN) powered by Starfish is a tool to enhance student success at Rowan by creating a better informed, more connected campus community. Students receive regular feedback from faculty, learn about campus resources, and make appointments with key academic support personnel. Faculty participate by providing encouragement and support to students; enabling advisors and staff to take a holistic approach to success by obtaining an overview of the student’s academic life.
  - <https://sites.rowan.edu/student-success/rsn/index.html>
- **Career Advancement Center**
  - “The mission of the Office of Career Advancement (OCA) is to engage students in the development and implementation of meaningful educational and career goals consistent with their personal values, interests, and abilities. To this end, the office team helps students and alumni create an effective framework for a lifetime of active career management through one-on-one counseling, workshops, recruitment programs, career fairs, job posting databases and by promoting strong partnerships with employers, academic departments, and the university community.”
  - <https://sites.rowan.edu/oaca/>

- **Disability Resources**
  - Disability Resources provides accommodations and assistance to students with various documented disabilities in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. Students who meet University admissions requirements (i.e., otherwise qualified to attend the University) are required to submit appropriate documentation so that the University can determine whether they qualify for reasonable accommodations.
  - The staff coordinate and ensure accessible classes, use of assistive technology, audiotaped books (when available), examination administration in cooperation with the instructor, as well as other services as deemed necessary.
  - <https://sites.rowan.edu/disabilityresources/>
  
- **Veteran Affairs**
  - Welcome to the Veterans Affairs Office at Rowan University. The Veterans Office at Rowan University is the liaison with the Regional Processing Office in Buffalo, New York, to assist veterans and dependents of veterans with their education benefits. The Veterans Affairs Office also provides programming and resources for the the campus community.
  - <https://sites.rowan.edu/veterans/>
  
- **Testing Resources**
  - Testing Services is located on the 3rd floor of Savitz Hall, within the Academic Success Center, and is part of the Student Success Team. The links below provide further information regarding specific services.
  - If you have any questions about the tests scheduled or administered by Testing Services, please email [testingservices@rowan.edu](mailto:testingservices@rowan.edu) or give us a call at 856-256-4263. Emails are answered promptly and calls will be returned as soon as testing activity allows.
  
- **Counseling and Psychological Services**
  - Counseling & Psychological Services at Rowan University provides quality counseling for a variety of concerns to promote the psychological wellbeing and personal growth of a diverse student body.
  - The CPS staff offers its services to faculty, staff and students regarding a wide range of mental health issues impacting the campus community. Our staff provides confidential personal counseling and other psychological services free of charge to currently enrolled Rowan University students. The primary goal of CPS is to help students develop the necessary skills to overcome problems and experience personal growth to make the most of the educational opportunities at the university.
  - <https://sites.rowan.edu/wellness/counseling/>
  
- **National Suicide Prevention Lifeline**
  - Provides support for those struggling with: depression that interferes with daily routine or excluding themselves from social activities; Lack of coping skills around day-to-day problems or intense reactions to certain situations; Extreme highs, irrational thoughts/behaviors, sleeplessness and compulsive behavior; Increased use of drugs or alcohol; Severe anxiety or stress; Constant feelings and expressions of sadness or hopelessness

- <https://sites.rowan.edu/wellness/hci/ruallifesaver.html>
- **Writing Center**
  - Welcome to the [Writing Center](#) at Rowan University! We are a group of experienced, friendly, and passionate tutors who want you to succeed throughout your academic career. We know the writing process can be tough, tiring-even scary. Hey, we're writers, too. We also know that with a little extra guidance, you'll be able to brainstorm ideas, overcome blockages, and learn useful skills to get that rough draft rolling. Whether you're an art major learning the ways of watercolor or an engineer-to-be, feel free to visit the Writing Center on the first floor of Campbell Library.
  - <https://academics.rowan.edu/ccca/departments/writingArts/writinglab.html>
- **Passport Program**
  - Get connected at Rowan University by attending events on campus! We encourage students to attend at least one event in each of five categories (Artistic, Athletic, Student Success, Academic Enrichment, and Community Engagement) each semester. You can find events on [ProfLink](#), the Rowan Daily Mail, [Facebook](#), [Twitter](#), [Instagram](#), or on bulletin boards all over campus!
  - <https://sites.rowan.edu/student-success/first-year-programs/ru-passport-program/index.html>
- **Prof Cents**
  - Rowan University is committed to keeping the education experience affordable for every one of our students. We value and prioritize affordability and consider it a key element in achieving our goals. In fact, affordability is one of the [University's Four Strategic Pillars](#) that is focused on reducing student debt, limiting tuition increases, and enhancing internship and employment opportunities.
  - To help our students navigate some of the financial decisions they may encounter throughout their time here at Rowan, we have compiled numerous resources that could help keep life in college more affordable.
  - On this site you will find links to a variety of resources ranging from academic services and financial assistance to computer lab locations, free tax help, and cost-saving transportation alternatives.
  - The resources provided on this site are intended to help our students maintain an affordable lifestyle while simultaneously gaining a priceless life experience and education here at Rowan.
  - <https://sites.rowan.edu/student-success/profcents/>